

Lake Forest Park, WA 98155

Do not allow any additional Growlers on Whidbey Island, that would accelerate our climate crisis, create un-planned closures of the National Park, and have serious high noise levels affecting birds and people on the Olympic Peninsula when these jets are used in that area

- 1.a. Thank You
- 1.d. General Project Concerns
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 18.a. Climate Change and Greenhouse Gases
- 2.a. Purpose and Need
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name
- 2. Organization/Affiliation
- 3. Address
- 4. E-mail
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

DEIS DOES NOT ADEQUATELY ADDRESS
 WIDISE ENVIRONMENTAL OR PUBLIC HEALTH
 IMPACTS. FCLP OPERATIONS SHOULD NOT
 TAKE PLACE ON WHIDBEY ISLAND.

Please print • Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted

██████████
Coupeville, WA 98239
January 2, 2017

EA-18G EIS Project Manager
Naval Facilities Engineering Command
(NAVFAC) Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

Gentlemen:

This letter provides comment under NEPA for the Draft Environmental Impact Statement (EIS) for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island. The Draft EIS states (page ES-5) that the proposed action would have a significant impact on the noise environment as it relates to aircraft operation at Ault Field and OLF Coupeville.

My wife and I have been full or part-time residents of the Harrington Lagoon community on the east side of central Whidbey Island for over 30 years. Our residence lies under the flight path for touch-and-go operations at OLF Coupeville when the aircraft are utilizing "Runway 14" (when the aircraft are "landing" to the south and then circling around up the east shore of Whidbey Island over Race Lagoon, Harrington Lagoon, and Snakelum Point). As long term residents, we feel we have perspective on how these operations have been conducted over the years.

We actually have been pleased with the level of operations recently. They stopped entirely in 2013, and then for the past three years Runway 14 has been lightly utilized. And when it has been used the aircraft, intentionally or not, have often been flying farther out over the water and not right over our house. This makes a tremendous difference in livability. We can actually carry on conversations inside, and can even venture outside for short periods when the Growlers are not right overhead.

That said, we are not happy with the prospect of increased operations, and feel that the Draft EIS is deficient or incorrect in a number of its assertions. Specifically:

1. The Draft EIS states that OLF Coupeville has historically been utilized for touch and go operations and that the current proposal will do no more than return operations to historic levels. The EIS, however, seems to equate Growler operations with those of the older EA6B. That is incorrect.

The Navy has a credibility problem here. To quote the January, 2005 Environmental Assessment proposing the change in equipment: "Replacement of the EA-6B squadrons with EA-18G squadrons will result in a reduction of flight training operations at NAS Whidbey Island" and this change "will result in no significant adverse impacts." (page 43). These statements are clearly false. The public record is clear: while that EIS projected 6,120 annual operations at OLF Coupeville, actual operations were 9,668 in 2012, over a 50% increase! Second, the noise from the Growlers is much worse than it was with the older aircraft (that is my experience as well of that of numerous others). And here the Navy also gave out incorrect information. In ca. 2005, an article in the "Everett Herald" concerning the new planes stated that the EA-18G would be some

1.a. Thank You
10.c. Wildlife Sensory Disturbance and Habituation
12.c. Socioeconomic Impacts
12.e. Agriculture Analysis
12.j. Property Values
12.n. Quality of Life
13.a. Environmental Justice Impacts
2.a. Purpose and Need
2.j. Costs of the Proposed Action
2.k. Range of Alternatives
2.n. Alternatives Considered But Eliminated
3.d. Arrivals and Departures
3.h. Runway Usage, Flight Tracks, and Altitudes
4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
4.c. Advanced Acoustic Model
4.f. Noise Measurements/Modeling/On-Site Validation
4.k. Comparison of the Prowler to the Growler
4.m. Supplemental Metrics
4.q. Potential Hearing Loss
4.t. Noise Mitigation

15% QUIETER than the EA-6B. Bottom line: the idea that the Growlers would be NOISIER was not ever considered.

Due to these facts, I believe the current EIS should address the question as to whether basing this new aircraft on Whidbey Island in the first place was correct. The new EIS should not just consider impacts of adding still more squadrons, but look at alternative placement and/or mitigation options for the aircraft already here.

2. The Navy gives detailed discussion as to why it would be inconvenient to move these operations (page 2-18). But there is no serious study with cost data as to permanent alternatives such as finding and building a new facility in a remote area. The Draft EIS states that a new airfield would be a “multi-million-dollar” project but provides no hard cost data to justify this guesstimate. How would the cost of moving the field compare to the cost of manufacturing one single new Growler? Is it really smart for the Navy to place the entirety of any one asset in just one place, especially earthquake country? Sure, placing all of one type of asset in a single location has associated cost savings, but what are the downside risks? This is not detailed in the Draft EIS.

Closing down the airstrip would solve the noise problem permanently for Coupeville residents. Central Whidbey is steadily increasing in population, and if the Navy continues to use OLF Coupeville, it is pretty evident that their every future move will be subjected to microscopic scrutiny. Does the Navy want to jump through a new expensive EIS hoop every time they have a slight change in operational level or equipment changes? And during 2013, operations at Coupeville ceased. Presumably training did not stop during that period. So the feasibility of conducting operations elsewhere has been proven feasible. Be assured, the people in Coupeville do not wish flight crews to be under-trained. The question is: where can this training be performed with the least impact on the local population?

3. The Navy states in the Draft EIS (page 1-20) that aircraft noise mitigation measures are under study, specifically “Chevrons” placed in the jet engines and the “Magic Carpet” flight control system. These sound promising. So it would not be unreasonable to insist that the Navy complete these evaluations and implement appropriate noise control measures BEFORE proposing the introduction of additional aircraft. If the noise can be mitigated, operations from OLF Coupeville would no longer be an issue. But being realistic, if the Navy obtains approval for additional aircraft, what is the probability that these mitigation measures will ever be pursued let alone implemented? The Navy should “put the cart before the horse.”

4. The Navy should insure that flight paths with the least noise impact be required. The Draft EIS (page 3-6, Table 3.1-2) clearly shows that the impact of overhead aircraft is considerably lessened when the planes are not directly overhead. In the case of Runway 14, flying farther out over the water on the return route makes a huge difference. For Race Lagoon (the nearest data point to my residence), the table on page 3-33 indicates that a 114 decibel noise level may be expected, which is approaching the threshold of pain. This sound level is pretty close to the first line on Table 3.1-2, which postulates 116 decibels underneath flight paths when an aircraft is at 200 feet. However, if the aircraft flies in a larger loop a mile off shore away from residences, the table shows that the noise should drop to a tolerable 77 decibels. The Draft EIS seems to indicate that this improved flight path will be standardized and implies that the new path will approximate the current nighttime option, which for Runway 14 presumably is the wider arc blue path on Figure 3.1-4 (page 3-9). The legend of Figure 3.1-4 should indicate which flight path is day and which is night. (Figure 4.1-1 is similar but shows three tracks). And if the intent is for the Navy to utilize only the night flight path in the future, the EIS should specifically say so. It would also be appropriate for

the Navy to consider an even wider loop, such as the yellow oval in Figure 3.1-4, if aircraft operations are to increase. I suspect the slight additional operational costs of a wider loop would pale in comparison to relocating the OLF.

5. The Draft EIS states that Runway 14 has been underutilized due to safety concerns but may see increases in the future. Specifically, on page 3-11 the Draft EIS states that Runway 14 requires a “non-standard pattern” which requires “an unacceptably steep angle of bank for the Growler ...” This statement requires additional explanation. If as implied here the Runway 14 configuration is unsafe, why is it being used at all?

6. The Draft EIS states that the tables giving decibel levels were developed from computer models, but that no actual on-the-ground noise measurements have been taken (page 3-16). It further states that the modeling program (NOISEMAP) is routinely updated and validated. However, the dates of said validations cited in the Draft EIS range from the years 1976 to 1991. This is very old data, and probably predate the existence of the Growler aircraft. That is not acceptable. Before the EIS is finalized, actual decibel measurements should be taken when the Growler is practicing to verify the model.

7. The Draft EIS discusses in great detail Alternatives 1, 2, and 3 (all of which add roughly the same number of aircraft). But the wisdom of the “No Action” alternative is given short shrift. The EIS does not provide details concerning National Defense needs for these additional aircraft. Are they really needed? Could Navy funds be better spent elsewhere? Just because Congress appropriates dollars, is this the best way for the Navy to spend them? What if under the new Administration priorities change and this funding is cut? Should the Navy wait and see, vs. spending additional funds to finalize this voluminous EIS document?

8. Alternatives 1, 2, and 3 are all essentially equivalent; however, significant differences in environmental impact result depending on the selection of Operational Scenarios A, B, or C. Either of the A and B scenarios greatly increase the impact to Coupeville compared to alternative C. This brings up the issue of Environmental Justice. The Draft EIS devotes considerable space to Environmental Justice, concluding (page ES-9) that “these impacts do not disproportionately impact environmental justice communities” (i. e., minority or poor populations). The Environmental Justice concept came up in the first place because all too often assets were being located in poor or minority communities: these communities would suffer the adverse environmental impacts, while nearby areas could reap financial benefit without the downside environmental consequences.

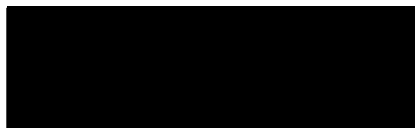
This situation is akin to the current Navy proposals in Scenarios A and B. Namely, the Oak Harbor community will benefit financially, but the environmental cost (aircraft noise) will be shifted to Coupeville (and not just for the new aircraft, but for the operation of most of them). The Draft EIS makes this notion pretty clear. On page 4-229 it states that there will be: “A positive long-term economic impact...as a result of the increased employment and payroll at the NAS Whidbey Island complex.” It is also evident that the merchants of Oak Harbor are in full agreement with this statement, as witnessed by signs on their businesses exhorting the Navy to “Keep OLF Open“ and by the occasional bumper sticker proclaiming “Jets = Jobs.” I would assert that it is an Environmental Justice issue when Oak Harbor gets the jobs, but Coupeville gets the jets.

The draft EIS states that for Scenarios A and B that new APZs (Accident Potential Zones) may be required (properties impacted by Runway 32 operations would require an APZ under both Scenarios A and B; properties affected by Runway 14 operations would not need an APZ under Scenario B, but would require one under the considerably more onerous Scenario A). Establishment of APZs may restrict property use and/or enjoyment and thus decrease value (the language of the Draft EIS on page 4-119 states that creation of APZs could influence future land use decisions). That sort of tradeoff (environmental degradation and monetary loss for one community vs. financial benefit for another) is an Environmental Justice issue.

9. Under Biological Resources, it is stated that there will be no impact on eagles. I beg to differ. When we built our new residence in 2004, a building permit requirement was that we not make excessive construction noise in the vicinity of eagle nests. That was almost humorous. Compared to the noise from low flying jets, which we have observed to really upset resting eagles, the hammering of a few nails was insignificant.

For the EIS to be complete, all the above comments should be addressed in detail.

Sincerely,



Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

• **Comments must be postmarked or submitted online by February 24, 2017** •
SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at *Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS*

1. Name [REDACTED]

2. Organization/Affiliation *(resident, citizen, business, nonprofit, veteran, retired military)*

3. Address [REDACTED] Coupeville WA 98239

4. Email [REDACTED]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.b. Land Use Compatibility and Air Installations Compatible Use Zones
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

APZs will drastically impact one small town and its businesses. Do not increase flights! Do not seize peoples land. As a small business owner we cannot afford this kind of dislocation just because the navy ordered too many planes to fill a quota for a form of militarization that will soon be taken over by drones. Preserve our Reserves. Preserve our land.

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For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.



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1. Name

[Redacted]

2. Organization/Affiliation

Citizen

3. Address

[Redacted]

Capeville 98239

4. E-mail

[Redacted]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

Because the noise studies on health impact, both long and short term, have been inconclusive and contradictory, a 3rd party non-bias should be done in Capeville and proposed flight areas to study the effects of the noise on the local residents.

Specifically: A local noise study should be conducted via a non-bias party on the effects of health for residents impacted by the noise.

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

1.a. Thank You

4.f. Noise Measurements/Modeling/On-Site Validation

4.r. Nonauditory Health Effects

4.s. Health Impact Assessment and Long-term Health Study Requests



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1. Name [Redacted]
2. Organization/Affiliation Citizen
3. Address [Redacted]
4. E-mail [Redacted]
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The studies of intermittent high exposure noise effects are currently contradictory and inconclusive. Before proceeding with increased flights, a 3rd party impartial assessment should be conducted regarding short and long term negative impacts on civilians.

- 1.a. Thank You
- 4.m. Supplemental Metrics
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests

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YOUR INPUT MATTERS

Oak Harbor, WA 98277

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined "hazardous noise zone" threshold (i.e., an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month).

Penn Valley, CA 95946

- 1.a. Thank You
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments

It is very difficult during this busy time of year to find the time to comment in detail as I would like on the EIS for this proposed project (mainly the reasons for its deficiencies). In addition, my father just died and I must travel to the funeral and attend to other related affairs. I want to request that you please extend the comment deadline 1 1/2-2 months to allow the public to submit proper feedback.

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1. Name [REDACTED]

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
RESIDENT

3. Address [REDACTED] *COUPEVILLE, WA*

4. Email [REDACTED]

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- A decrease in private property values due to noise, *and expanded crash zones.*

(over)

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- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
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- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 18.a. Climate Change and Greenhouse Gases
- 19.b. Revised Cumulative Impacts Analysis
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- The impact on marine and terrestrial wildlife, *including increased ocean acidification from aircraft emissions*
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system. *Growler*

Please include any additional comments and concerns here:

Please see the attached note,

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February 8, 2017

MEMORANDUM

To: Naval Facilities Engineering Command Atlantic

From: [REDACTED]

Subject: Addendum to Environmental Impact Statement Comment Form, EA-18G Expansion at Whidbey Island NAS Complex/Outlying Field

I have read the Navy's Environmental Impact Statement on the proposed expansion on Whidbey Island, Washington.

The EIS recognizes, admits to, and documents statistically the many negative environmental consequences of the proposed expansion, including the effects on human health and well-being. Unfortunately, the EIS does not address the cumulative effects of the negative consequences, and therefore seriously understates the negative outcomes. Worse still, it ignores other important consequences, the chief one being the effects on Coupeville of the expanded Accident Potential Zones (APZs) that will surely follow increased Field Carrier Landing Practice (FCLP) operations at the so-called but truly no-longer Outlying Field.

Local Navy officials must certainly be aware of the cumulative negative effects of the proposed expansion, but even having an open discussion of the consequences, let alone obtaining confirmation of those consequences at Navy-conducted information sessions, has been impossible.

I respectfully urge you to re-visit and as a result reject the planned expansion. Current operational levels pose only limited threats to life on Whidbey Island. But to center all EA-18G operations on Whidbey, and worse, to conduct all additional FCLP activity at the Outlying Field, is not acceptable. Alternative expansion locations must exist. Please give full and fair consideration to those options.

Seattle, WA 98144

Dear Sir/Madam, Thank you for extending the comment period to February 24, 2017, in order accommodate the fact that having four major public processes open over the holidays, all concerning Navy activities or the biological resources that may be affected by them, made it difficult to read, comprehend and prepare comments in a timely way. 1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because all flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects. 2. Impacts to cultural and historic sites are not adequately considered. The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy.

(http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as "normally unacceptable" and above 75 as being "unacceptable."

(<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/>) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). 3. Piecemealing projects to avoid analyzing cumulative effects is illegal. The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions: 1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft; 2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers); 3. 2012 EA (26 Growlers including 5 from a reserve unit); 4. 2014 EA (Growler electronic warfare activity); 5. 2015 EIS discussing electronic warfare training and testing activity; 6. The current 2016-2017 DEIS (36 Growlers); 7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160. Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.c. Segmentation and Connected Actions
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.f. Endangered Species Impact Analysis Adequacy
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property
- 19.a. Scope of Cumulative Analysis
- 19.b. Revised Cumulative Impacts Analysis
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 19.h. Cumulative Impacts on Biological Resources
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.e. Public Involvement Process
- 2.h. Next Steps
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.d. Arrivals and Departures
- 4.a. General Noise Modeling
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.i. Other Noise Metrics Not Currently in Analysis
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 8.a. Cultural Resources Area of Potential Effect
- 8.c. Noise and Vibration Impacts to Cultural Resources
- 8.j. City of Port Townsend Cultural Resources

limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville alone went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are “no significant impacts.” The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) “...does not allow an approach that would permit dividing a project into multiple ‘actions,’ each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.” The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability. 4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water. 5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is “turning out fully trained, combat-ready Electronic Attack crews.” 6. The current comment period on a Draft EIS should not be the last chance the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The “30-day waiting period” proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts. 7. There are no alternatives proposed in this DEIS that would reduce noise. This violates NEPA §1506.1, which states, “...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives.” According to a memo from the President’s Council on Environmental Quality (CEQ) to all federal agencies, “Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply

desirable from the standpoint of the applicant.”

(<https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the “loser” among these communities. 8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative in the DEIS. According to the CEQ memo, “[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to “identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . .” Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative. 9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010 with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are “tiered” for this purpose, but they are not. Had the activities contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula. 10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the “Affected Noise Environment” around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy’s ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas. 11. The Navy’s claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the “library” of sounds that comprise the basis for the Navy’s computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are “presumably habituated” to noise do not apply when that noise is sporadic

and intense. 12. Commercial airport noise standards should not apply to military jets because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public. 13. The Navy's noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers. 14. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible.

(<https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>) 15. The Navy describes its activities using the term "event," but does not define it. Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them. 16. New information that was not disclosed in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: <https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control. 17. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA

documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed. 18. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets. 19. No mitigation for schools: The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to not allow a comment period on the Final EIS would be unlawful. 20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period. 21. Crash potential is higher: With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable. 22. Contamination of drinking water in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant. 23. Navy knew about contamination in advance: It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of

“identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam].” Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: “Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e).” The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word “perfluoroalkyl” or “PFAS” is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals.

(<https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf>) 24. No mention of contaminated soil is found in the DEIS: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water. 25. Impacts to wildlife have been piecemealed: It does not make sense to separate impacts from just one portion of an aircraft’s flight operations and say that’s all you’re looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy’s study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual “events,” which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process. Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted. 26. Pages of boilerplate language do not constitute analysis of impacts to wildlife: Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is “greatest during flight operations.” However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is “highly unlikely,” largely because “no suitable habitat is present.” This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly

likely that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area. 27. Old research cited but new research not: In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB.

(<http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract>) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds,"

(<http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html>) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the best available science. This DEIS fails that test. Thank you for considering these comments. Sincerely, [REDACTED]

COUPEVILLE, WA 98239

- 1.a. Thank You
- 12.j. Property Values
- 2.m. Record of Decision/Preferred Alternative

My name is [REDACTED] and I am a retired AECS. I have always supported the Navy and operations at the OLF and I will continue to support the Navy (I still love it and my son will start boot camp in April). When I bought my property in Coupeville 23 years ago I knew that the OLF existed and that I would from time to time get a bit of noise over my home (no worries)! I have had a chance to review the new plan and well-I did not sign up for that. I can understand a slight increase in flights (option A I believe). The numbers mentioned in the plan for the other two options are not acceptable. The COER has been complaining for years that the flights have brought down property values and I found no merit in that (I sell real estate-19 years). If you increase flights from 6000 to 7000-8000 it would make a small impact but I believe acceptable. The other two options would bring down property values for sure. No one wants to live in an area with constant noise (like Deception Circle). The last option had a possible 35000 flights vice 6000. I'm not sure if you wanted to get the point across of how bad it could be or if it was a serious consideration. If it was a serious consideration it is unacceptable to me. It almost sounds like you would be rewarding the Oak Harbor area with fewer (% wise) flights at the expense (and punishment)of Coupeville residents. I will continue to support a small increase but will not support anything over 15-20%! Take care, [REDACTED]

1.a. Thank You

Anacortes, WA 98221

The EA-18G Growler community based at Naval Air Station Whidbey Island constitutes a military capability unique among NATO and western aligned nations; One that is absolutely essential to securing the national defense of the United States and of our allies. Consequently, operations at OLF Coupeville are mission essential to these same objectives. The greater Whidbey Island community and the U.S. Navy have a long history of mutually beneficial cooperation and fellowship. Whidbey Island and the surrounding communities are the home for the Navy's war fighters who operate the Growlers, and their families, in many cases to a greater extent than anywhere else in the nation. This local community offers its full support to continued and expanding operations for Growler aircrew out of NAS Whidbey Island and OLF Coupeville.

1.a. Thank You
19.d. Electronic Warfare

Seattle, WA 98122

I am absolutely opposed to having any "war games" or trainings in or over the Olympic National Forest or Whidbey Island!! It is huge impact on the people and animals who live or do recreation there. This is where the busy people go to escape to OUR natural places!! NO NO NO

1.a. Thank You

Oak Harbor , WA 98277

1.a. Thank You

Oak Harbor , WA 98277

I totally support f18 growlers. As the saying goes....it's the sound of freedom

Port Townsend, WA 98368

- 1.a. Thank You
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments

Please extend the public comment period for 45 additional days. I attended the information meeting in Port Townsend on December 5, 2016 and need more time to review and comment upon the extensive information presented there. Thank you,

[REDACTED]

Port Townsend, WA 98368

U. S. Navy EA-18G EIS Project Manager (Code EV 21/SS) NAVFAC Atlantic 6506
 Hampton Blvd. Norfolk, VA 23508 e-mail: WhidbeyEIS@navy.mil Submitted online at:
<http://whidbeyeis.com/Comment.aspx> January 25, 2017 Greetings, I wish to thank you for
 the opportunity to submit my comments related to the EIS currently being conducted for
 EA-18G Growler Airfield operations at Naval Air Station, Whidbey Island, WA. I am
 deeply concerned about the continued and proposed increased use of the Coupeville
 Outlying Field by the U.S. Navy. The new jets are louder and they are flying far more
 often until well after midnight during the work week; they are disrupting personal lives and
 local economy which is reliant upon tourism, permanently damaging our hearing with
 decibels far exceeding safety levels, and endangering the environment. As a resident of
 the Fort Worden neighborhood since 1984, I have made numerous complaint calls to the
 Navy and can observe and hear the planes at OLF from inside my home. I am a former
 member of W.I.S.E. Whidbey Islanders for a Sound Environment. I supported Port
 Townsend Mayor Brent Shirley in his attempts to stop Navy jet flights directly over the
 City of Port Townsend and Fort Worden State Park. The major noise impact in the Port
 Townsend area is when the planes turn from south to east to north, approaching the OLF
 runway. At this time, the noise is extremely loud, and I have observed it several hours
 after midnight on countless occasions. I have definitely noticed significantly louder noise
 since 2009 when the EA-18G Growlers have been replacing the EA-6B Prowlers.
 Another impact is various fly-overs in the Port Townsend and Fort Worden area. For
 many years, I have observed the P-3 Orion prop planes circle through the Admiralty Inlet
 area, quite close to, and occasionally directly over the City of Port Townsend. While
 noisy, they are much quieter than the P-8 Poseidon jet, which is replacing them. The
 increased flights to the western areas of the Olympic Peninsula also impact our area.
 NOISE: The Navy considers any sound above 84dB as noise hazardous, or having the
 potential to cause hearing loss. The F/A-18E/F Growler aircraft emits, a maximum of 150
 dBs, high enough to result in permanent hearing loss. Actual noise levels and
 frequencies need to be determined by measurement throughout the affected area, not
 just in the immediate vicinity of the OLF. This includes throughout central and north
 Whidbey, including Coupeville and Oak Harbor, all affected State Parks (Fort Casey, Fort
 Worden, Fort Flagler, Fort Ebey, Deception Pass, etc.) and the affected portion of Olympic
 National Park, affected portions of Skagit County, Jefferson County including Port
 Townsend, San Juan County, and on the water where boaters may be subjected to the
 noise. Real-time high noise events experienced with each touch-and-go operation should
 be measured rather than averages over periods when the jets aren't even flying. The
 economic impacts of noise generated by Growler jet operations is not addressed in the
 EIS. These include reduction in property values; reduction in income due to lost work
 opportunity and productivity (e.g., inability to perform time dependent farm work due to
 Growler noise), economic health costs, and reduction in recreation and tourism. The
 adverse noise impacts to wildlife has not been adequately studied and disclosed. In
 particular, impacts in areas where there are aggregations of birds should be determined,
 including Crockett Lake, Smith and Minor Islands, and areas of Puget Sound. This
 includes not just resident individuals, but periodic visitors (e.g., migrating birds). Noise
 impacts to listed species which may not occur in large aggregations, particularly

- 1.a. Thank You
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 10.j. Plants
- 10.l. Bird Migration
- 10.m. Impacts to Marine Species and Habitat
- 12.c. Socioeconomic Impacts
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.n. Quality of Life
- 16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)
- 18.d. Washington State Greenhouse Gas Goals
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.l. No Action Alternative
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)
- 6.f. Fuel Dumping
- 8.e. Outlying Landing Field Coupeville and Coupeville History

Marbeled Murrelet, also need to be considered. Due to the frequency profile of the sound made by Growler jets, there is also the potential for noise impacts to marine mammals. Additionally, impacts of noise on livestock also need to be disclosed. HEALTH: Aircraft noise can permanently damage hearing, raise blood pressure, and harm livestock and wildlife, and children have greater susceptibility to harm. Studies include those by: the World Health Organization, the US Department of Transportation, and the US Environmental Protection Agency. The EIS does not consider the variable ages of the affected human population especially youth. There needs to be particular consideration of travelers in motor vehicles, boaters, people recreating at all of the affected State Parks, etc. Results should be presented in terms of impacts to individuals (i.e., exposure thresholds resulting in hearing loss) and populations (i.e., such as the increased rates of cardiovascular disease). The Navy has not disclosed any existing data regarding fuel dumping it may have and, if there is none, disclosed this lack of data. Second, a formal monitoring program needs to be put in place that will log and record instances of fuel dumping, including where the dumping occurred, jet speed and elevation, and how much fuel was dumped. This system should operate with a system allowing members of the public to report fuel dumping. These results need to be evaluated both in terms of human and animal (livestock and wildlife) health and effects on vegetation, including forest trees. Investigation of impacts of fuel dumping on forest canopies also needs to consider possible impacts of wind created by low flying jets. This review must also consider impacts to aquatic systems, including both freshwater and marine waters that may be receiving dumped fuel. The impacts to human and animal health from electromagnetic radiation from antenna farms and radar installations needs to be investigated and disclosed, as it is a part of this particular expansion. SAFETY: Flights over populated areas pose potential safety problems. Pilots and residents are at risk when the Navy uses this short, outdated World War II era OLF. Keeping it open will cause some of the people of the North Puget Sound area permanent hearing loss; air pollution from fuel dumps in the air; risk of jets crashing into civilians' houses. ENVIRONMENT: The OLF sits next to Ebey's Landing National Historic Reserve, a 24,000-acre National Park of environmental, cultural, and historical significance and an important wildlife and migratory bird habitat, supporting recreational/tourist use and appreciation. Does this EIS fully consider the real effects of OLF operations on these significant values? Air Pollution and Climate Change Pollution from jet aircraft releases harmful greenhouse gases that will contribute to climate disruption. VEGETATION MANAGEMENT: The EIS needs to address weed control around OLF, particularly of Canada Thistle, blackberry & Scotch Broom. There are several rare plants and communities present on NAS Whidbey including forest at Rhododendron Park, prairie remnants on Smith Prairie (including the presence of the federal and state listed Golden Paintbrush), the rare forest types along Whidbey's west coast, Admiralty Inlet Natural Area Preserve, and various plant communities in both the affected State and National Parks. Without active management, degradation is predictable. GEOLOGIC IMPACT: An examination of the possible impact of aircraft noise and ground vibrations on the various island slide areas including in the Ledgewood Beach community on Whidbey Island and the bluff collapse at Chetzemoka Park in Port Townsend. ALTERNATIVES TO OLF: The OLF was not used for the second half of 2013, during which time training has been conducted elsewhere. Less populated areas should be considered for Touch & Go traffic required for training. This would make it safer for everyone including the Navy families living under the planes. Yakima is an option with airfields and facilities to accommodate staff. It is less than ten minutes by growler to

eastern WA. & these planes all ready use this area regularly. I strongly recommend the No Action Alternative, for the reasons stated above. In the event that the No Action Alternative is not chosen, I recommend Scenario C for the remaining alternatives. Thank you for the opportunity to contribute to this Environmental Impact Statement. Sincerely,
[REDACTED] Port Townsend, WA 98368

1.a. Thank You

Port Townsend, WA 98368

February 24th, 2017 EA-18G EIS Project Manager Naval Facilities Engineering Command (NAVFAC) Atlantic -- Attn: Code EV21/SS 6506 Hampton Blvd. Norfolk, VA 23508 To Whom It May Concern, and perhaps I should say, To Whom I Wish This Would Concern, This letter's purpose is to express my incredible sorrow at the direction our country appears to be going. While it is not new, the reach of the US Empire has only grown larger and more invasive in the course of my lifetime. Now, that reach is further encroaching on one of the few, sacred and pristine areas left in the United States. The Olympic Peninsula. Known for being one of the quietest places IN THE WORLD, the US Navy now wants to destroy that rare designation, too, with the addition of 36 more deafening Growler jets, to support expanded electronic warfare exercises over Whidbey Island, in the San Juans, around Puget Sound, Olympic Peninsula, and adjacent areas. We cannot keep treating the Earth as an unlimited resource we can continue to rob. There are limits to land mass, oceans, trees, fresh water sources, and, yes, to quietness. As a long time environmentalist, I have come to realize that the US military, perhaps more than any other single institution on Earth, has a voracious, unquenchable inclination to USE resources. With no limits. Never demonstrating any appreciation for having a sense of "enough". I am sickened at the thought that half US tax money goes to sustaining and growing this institution. It seems inherently anti-life by its very nature. I assume whomever is reading this letter works within the institution I wish to shrink. I do understand that most people who have jobs often have a strong inclination to keep those jobs – salaries put food on the table and send kids off to college, after all. But what about becoming concerned, as we all should be by now, with being able to actually sustain life, on Earth, itself? I am quite disheartened by the military's capacity to assume it is entitled to whatever it wants even when the majority of public opinion clearly is against its ongoing, neverending, expansion. I am no scientist, and this letter is not backed up with any particular data. What it IS founded upon is my knowledge that our very biosphere is struggling and the military seems to be doing everything in its vast power to hasten our collective demise. Are you not a little bit concerned, too? Sincerely, [REDACTED] Townsend, WA

anacortes, WA 98221

These comments are addressed to the draft EIS 2016: The Navy will be building new facilities to accommodate the Growlers. Why not build them in an area more suitable to increased war type activity? Perhaps, Lemoore in CA. The Navy used outdated computer modeling to measure noise levels. How will the Navy rectify the fact that actual noise studies were not done in the affected communities as requested? Considering many thousands of complaints re jet noise, why aren't the Growlers fitted with noise attenuating devices (NAD)? These would reduce pollution emissions from particulates and NOx and reduce engine jet noise by more than 20 dB. The fabrication and installation of NADs is very cost effective. Why are the Growlers not fitted with these? The Navy has never substantiated its need for non Defense Dept lands as required in the 1988 Master Agreement. The Navy is using public land on the Olympic Peninsula to practice electronic warfare. How does the Navy justify this barring the savings for jet fuel which is a mere pittance in comparison with the damage being done to the environment, wildlife, and public health? The EIS excluded large areas surrounding the air field from the noise evaluation. How does the Navy propose to compensate persons in those areas for loss of property values, livelihoods, and recreational opportunities? Among the 3 alternatives listed in the EIS, there is no actual "no action" alternative. Why is this?

1.a. Thank You

12.k. Compensation to Citizens for Private Property

2.c. Compliance with the National Environmental Policy Act

2.k. Range of Alternatives

2.l. No Action Alternative

2.n. Alternatives Considered But Eliminated

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

4.f. Noise Measurements/Modeling/On-Site Validation

4.t. Noise Mitigation

anaacortes, WA 98221

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

1. The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

anacortes, WA 98221

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

anacortes, WA 98221

The two most dangerous aspects of flying are the approach, landing and takeoff — in other words most of the OLFC flight path. The risks are significant (a) because of unrestrained and major encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of FCLP standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes exacerbated by the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

1. First Name _____

2. Last Name _____

3. Organization/Affiliation HOMESOWN TAXPAYER

4. City, State, ZIP OLYIA, WA 98279-0359

5. E-mail _____

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

Draft Environmental Impact Statement for EA-18G “Growler” Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide “scientifically and legally defensible noise assessments” of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

Freeland, WA 98249

To: EA-18G EIS Project Manager Naval Facilities Engineering Command (NAVFAC) Atlantic – Attn: Code EV21/SS 6506 Hampton Blvd. Norfolk, VA 23508 Dear Sir/Madam, Thank you for extending the comment period to February 24, 2017, in order to accommodate the fact that having four major public processes open over the holidays, all concerning Navy activities or the biological resources that may be affected by them, made it difficult to read, comprehend and prepare comments in a timely way. 1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its “study area” is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because all flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects. 2. Impacts to cultural and historic sites are not adequately considered. The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as “normally unacceptable” and above 75 as being “unacceptable.” (<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/>) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). 3. Piecemealing projects to avoid analyzing cumulative effects is illegal. The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions: 1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft; 2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers); 3. 2012 EA (26 Growlers including 5 from a reserve unit); 4. 2014 EA (Growler electronic warfare activity); 5. 2015 EIS discussing electronic warfare training and testing activity; 6. The current 2016-2017 DEIS (36 Growlers); 7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160. Therefore, it has been impossible for the public to

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.c. Segmentation and Connected Actions
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.f. Endangered Species Impact Analysis Adequacy
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property
- 19.a. Scope of Cumulative Analysis
- 19.b. Revised Cumulative Impacts Analysis
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 19.h. Cumulative Impacts on Biological Resources
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.e. Public Involvement Process
- 2.h. Next Steps
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.d. Arrivals and Departures
- 4.a. General Noise Modeling
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.i. Other Noise Metrics Not Currently in Analysis
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 8.a. Cultural Resources Area of Potential Effect
- 8.c. Noise and Vibration Impacts to Cultural Resources
- 8.j. City of Port Townsend Cultural Resources

know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville alone went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are "no significant impacts." The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) "...does not allow an approach that would permit dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact." The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability. 4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water. 5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is "turning out fully trained, combat-ready Electronic Attack crews." 6. The current comment period on a Draft EIS should not be the last chance the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts. 7. There are no alternatives proposed in this DEIS that would reduce noise. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the

technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.”

(<https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the “loser” among these communities. 8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative in the DEIS. According to the CEQ memo, “[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to “identify the agency’s preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . .” Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative. 9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010 with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are “tiered” for this purpose, but they are not. Had the activities contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula. 10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the “Affected Noise Environment” around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy’s ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas. 11. The Navy’s claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the “library” of sounds that comprise the basis for the Navy’s computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS

that wildlife are “presumably habituated” to noise do not apply when that noise is sporadic and intense. 12. Commercial airport noise standards should not apply to military jets because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy’s benefit, but does not benefit the public. 13. The Navy’s noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers. 14. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software “...do not properly account for the complex operational and noise characteristics of the new aircraft.” This report concluded that current computer models could be legally indefensible.

(<https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>) 15. The Navy describes its activities using the term “event,” but does not define it. Therefore, the time, duration, and number of jets in a single “event” remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public’s ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them. 16. New information that was not disclosed in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service’s draft permit, viewable at: <https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with “...opening day and associated opening weekend of Washington State’s Big Game Hunting Season for use of rifle/guns.” While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control. 17. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: “Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL.” This guidance further states, “Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.” If this official guidance directs Growlers to fly

at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed. 18. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets. 19. No mitigation for schools: The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to not allow a comment period on the Final EIS would be unlawful. 20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period. 21. Crash potential is higher: With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable. 22. Contamination of drinking water in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant. 23. Navy knew about contamination in advance: It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health

advisories for two PFCs, and the Navy announced in June that it was in the process of “identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam].” Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: “Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e).” The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word “perfluoroalkyl” or “PFAS” is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals.

(<https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf>) 24. No mention of contaminated soil is found in the DEIS: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water. 25. Impacts to wildlife have been piecemealed: It does not make sense to separate impacts from just one portion of an aircraft’s flight operations and say that’s all you’re looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy’s study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual “events,” which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process. Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted. 26. Pages of boilerplate language do not constitute analysis of impacts to wildlife: Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is “greatest during flight operations.” However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is “highly unlikely,” largely because “no suitable habitat is present.” This begs the

question: if the scope of this DEIS measured the true impacts of jet noise, it is highly likely that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area. 27. Old research cited but new research not: In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB.

(<http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract>) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds,"

(<http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html>) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the best available science. This DEIS fails that test. Thank you for considering these comments. Sincerely,

Freeland, WA 98249

As a health care professional, I am extremely concerned about the decision to expand the number of "Growler" flights at OLF. The noise and fuel pollution risks are well documented both in the research literature and in studies specific to this site.

1.a. Thank You

4.r. Nonauditory Health Effects

6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)

Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

Open House Comments

Fill in and Submit at the Open House

1. Name [Redacted]

2. Organization/Affiliation Islands Climate Resilience

3. Address [Redacted] Friday Harbor, WA 98255

4. E-mail [Redacted]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like your name/address kept private

7. Please check here if you would like to receive a CD of the Final EIS

Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

- ① Evaluate impacts of the Growler at low frequencies (C-weighted, dBC).
- ② Recognize the impacts of low frequency Growler noise on health.
- ③ Incorporate San Juan County noise reports in the EIS analysis.
- ④ Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.
- ⑤ Evaluate a new Alternative that deploys UCLASS jets instead of more Growlers.
- ⑥ Commit to Mitigation Measures and timelines in the Record of Decision.

7. Add your own comments here:

The vast increase in military activity in this area (San Juan County, Olympic Peninsula area) will harm our way of life and the eco systems

(Continue on the back)

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.f. Noise Measurements/modeling/On-Site Validation
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.m. Supplemental Metrics
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.a. Regional Land Use and Community Character
- 7.h. San Juan Islands National Monument

that depend on quiet waters and quiet
skys. The Navy has not prioritized
mitigation of ~~of~~ these harmful
activities; section 1-2 of the Draft EIS.

Why don't you care?



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name [REDACTED]
- 2. Organization/Affiliation Islands Climate Resilience
- 3. Address [REDACTED] Friday Harbor, WA 98250
- 4. E-mail [REDACTED]
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

Section 4.6 re: Air Quality

Fuel dumping is an ongoing concern and should be re-addressed.

I'm glad to hear about the Navy working to reduce CO2 output, but the added jet activity is counter productive for that goal. At a time when we need to move off of fossil fuels quickly the addition of the jets should be re-considered.

**Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:**

**Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS**

YOUR INPUT MATTERS

- 1.a. Thank You
- 18.a. Climate Change and Greenhouse Gases
- 6.f. Fuel Dumping



Public Meeting Comment Form

1.a. Thank You

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1. Name [REDACTED]

2. Organization/Affiliation US Navy Reserve / United Airlines

3. Address [REDACTED] OH WA 98277

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

Very informative. Outstanding presentation! Thanks
for doing this! I'm a previous NASWI sailor and
I love the mission here. Keep flying!

Please print • Additional room is provided on back
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Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

1.a. Thank You

Oak Harbor , WA 98277

I specifically moved to Oak Harbor for its beauty and its proximity to NAS Whidbey Island. I love the base, I love the "sound of freedom". Keep doing what you're doing! God Bless America and NAS Whidbey Island, WA!

Oak Harbor, WA 98277

I love hearing the sound of freedom over my house every day! The noise is a small price to pay for the sacrifice the military makes for our Country. I fully support the OLF Coupeville training and recognize it as a necessity for proficiency. The more places the military has to fly, less it will significantly impact one airfield. I.E. flying at Coupeville will alleviate noise around Oak Harbor and Anacortes. If Coupeville is taken away, there will be a bigger and potentially unseen impact on the NAS Whidbey, Anacortes, and other areas utilized for training. Please support our military and their training to keep America safe.

1.a. Thank You

2.m. Record of Decision/Preferred Alternative

Freeland, WA 982499

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Freeland, WA 98249

- 1.a. Thank You
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects

The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations. Having lived for several years under the Sea=Tac flight path, when planes were in north flow, I have personal experience with this issue. Not pretty.

Greenbank, WA 98253

I think the Prowlers were tolerable but the Growlers have been proven to be exponentially louder and this has to be paid attention to. My son was painting a house in Admiral's Cove and had to put on ear protectors to work INSIDE the house without pain. I don't live in Coupeville but I worked there, my kids went to school there, we have many friends there. The too-loud noise of the Growlers has to be addressed, can they be directed to another airfield in E. WA or another state for practice, with much less residential areas? Please pay attention to Coupeville people who are really concerned about health and safety for their families. Thank you for this opportunity.

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 4.k. Comparison of the Prowler to the Growler
- 4.q. Potential Hearing Loss

coupeville, WA 98239

1.a. Thank You

2.b. Scope of the Environmental Impact Statement and Analysis
Conducted

you have gotten some of the most sophisticated, scientific, erudite, comprehensive comments I have ever seen in my life. The people who have written in amaze me and make me proud. My message is simple. What you want to do is destroying the fabric of a community, a region, and all of the people, species, marine mammals and all else that lives here in this sacred space. What you are doing here is immoral. You have poisoned the aquifer, the air, the health of the people who live here and it must stop. What you are doing is immoral. There are other places you can practice your FCLP's that are more appropriate, and the saddest thing is that you know it. You are poisoning your children, yourselves, and all those that you care about. I implore you to look hard at what you are doing to this region and to stop it, to be stewards of the land and of the people. Isn't that your mission? You don't need the OLF and you know it. You can filter the aquifer so that it doesn't kill the entire island. You can practice elsewhere, and you know it. All that lives in Puget Sound, in the water, on the land is asking for your help and your conscience as human beings sharing a fragile planet to stop acting as though your actions don't matter. They matter, and you have a choice to do the right thing. Clean up this place, be stewards of this land, practice elsewhere so that people can stop getting sick from the offshoot of your decisions. Please be a strong moral compass, you have it within you.

Freeland, WA 98249

I have friends that live in Ledgewood and work from home. They are forced to leave when planes are flying as there is no way to participate in a conference call with that intolerable level of noise. This level of noise is too disrupting to life here. Train in a less populated area. I think it's less than 10 minutes flying time to eastern Washington.

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.o. Classroom Learning Interference

Freeland, WA 98249

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Freeland, WA 98249

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.



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- 1. Name [REDACTED]
- 2. Organization/Affiliation *VW*
- 3. Address [REDACTED]
- 4. E-mail [REDACTED]
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

I value the Navy and it's mandate to protect the citizens of our country. I strongly urge the Navy to cease causing health problems to children and adults in the flyover areas near the OLF in Coupeville WA. Two members of my family have jet noise caused hearing loss and stress-related health issues. The nearby retirement home residents are terrified by the deadly sound.

Please print • Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 4.r. Nonauditory Health Effects

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

The low-flying-deafening sound is damaging and dangerous - see evidence in reports submitted by scientists and engineers.

There are many nearby sites where training fields could be built which do not threaten the health and well-being + property values of U.S. citizens.

Perhaps the Navy sees the proposed increase in flyovers and decibels is merely "Collateral damage"

Not if you or your children are the victims of this decision.

Please honor your promise to protect our local citizenry - as well as our nation by training in a non-residential area

For more information, please visit the project website at whidbeyis.com

Please print

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

EA-18G Growler EIS Project Manager
 Naval Facilities Engineering Command (NAVFAC) Atlantic
 6506 Hampton Boulevard
 Norfolk, VA 23508
 Attn: Code EV21/SS

Opening Statement

We are adamantly opposed to any increase in the number of Growler Jets, any increase to the number of Growler Jet flights and the Electronic Warfare Exercises being proposed by the U.S. Navy. In fact, regardless of whether or not it is within the scope of the DEIS, we strongly urge you to reduce or eliminate these flights. We therefore oppose all the Alternatives in the DEIS, including the "no action" alternative. All of the Navy's alternatives will continue or increase noise and create harm. The Navy's "no action alternative" would continue Growler operations that currently expose people in homes, schools, parks and businesses to noise that exceeds community standards set by the State of Washington, the EPA, the Occupational and Health Administration (OSHA), and the World Health Organization. Ken Pickard, President of Citizens of Ebey's Reserve stated *"The Navy's actions violate our democratic principles and harm the very people the Navy is sworn to protect."* We concur.

1) Noise and Air Pollution: The proposals in the DEIS will result in huge increases in jet noise, including a 600% increase in low-level training operations at Outlying Field Coupeville, exposure of nearly 3,500 more children to noise at health-damaging levels, and interruptions in some classrooms at rates of 45 times per hour. The Navy has made no actual noise measurements in communities, just computer modeling that averages jet noise with periods of quiet. Naval operations will cause huge increases in jet noise over communities throughout the region, and in Federally Designated Wilderness and other areas of Olympic National Park, obliterating its famous quiet. Air pollution will dramatically increase, too, as will the risk of jet crashes.

2) Decreasing Property Values: The proposals will guaranty decreasing property values throughout the vast range where jet noise is excessive. This will include but is not limited o Whidbey Island, The San Juan Islands and beyond.

3) Veterans Needs Ignored: The following quote from a WSJ article sadly illustrates just how dysfunctional the nation's military is. "Pork barrel" projects like the Growler Flights/ Electronic Warfare Exercises are vigorously pursued while the nation's veterans are tragically ignored.

THE WALL STREET JOURNAL - "U.S. Veterans Commit Suicide at Rate of 20 a Day, VA Says"
 July 7, 2016

"The suicide rate of U.S. veterans remains persistently high despite efforts by the Department of Veterans Affairs to address the issue."

4) Presidential Election Result: The recent election of Donald Trump as President of the United States, making him the most powerful man in the world, further heightens our fear of the misuse and mishandling of military weapons that will be at his disposal. While the Navy hides under the cloak of fighting terrorism, we are actually more fearful of our country's military might and continued build up.

5) NEPA: Whenever a branch of the U.S. Government enters into the NEPA process, it requests constructive comments. Unfortunately, the Navy Growler DEIS is so skewed and fatally flawed that to for us to personally comment solely "within the scope" of the document would be a meaningless farce. The following comments are "within the scope" of *our values and concerns*, most of which are being ignored by the Navy.

MORE ADDITIONALLY AND/ OR SPECIFICALLY:

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

- 1 The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.
- 2 The DEIS claim that the JGL noise study was "flawed" is disingenuous and unsupportable, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data.
- 3 The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts.
- 4 Much like the tobacco industry did years ago, the DEIS selectively and reprehensibly cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

1.a. Thank You

10.a. Biological Resources Study Area

10.b. Biological Resources Impacts

10.c. Wildlife Sensory Disturbance and Habituation

10.k. Aircraft-Wildlife Strike and Hazing/Lethal Control of Wildlife

11.d. Per- and Polyfluoroalkyl Substances

12.j. Property Values

13.a. Environmental Justice Impacts

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

2.c. Compliance with the National Environmental Policy Act

2.e. Public Involvement Process

2.f. Use of Public Comments

2.k. Range of Alternatives

2.l. No Action Alternative

2.n. Alternatives Considered But Eliminated

3.b. Flight Tracks and Federal Aviation Administration Regulations

4.a. General Noise Modeling

4.d. Day-Night Average Sound Level Metric

4.f. Noise Measurements/Modeling/On-Site validation

4.g. Average Annual Day/Average Busy Day Noise Levels

4.j. Other Reports

4.o. Classroom Learning Interference

4.p. Sleep Disturbance

4.q. Potential Hearing Loss

4.r. Nonauditory Health Effects

5.a. Accident Potential Zones

5.c. Condition of Outlying Landing Field Coupeville

5.e. Lack of First Responders at Outlying Landing Field Coupeville

6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)

7.b. Land Use Compatibility and Air Installations Compatible Use Zones

7.d. Recreation and Wilderness Analysis and Study Area

7.f. Impacts to Wilderness Areas

- 5 The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").
- 6 Island County land-use policies, plans, as reflected by the construction permits issued, have largely defied the Navy's 2005 AICUZ directives for Outlying Field Coupeville, such as *no residences in a noise zone 2*. Whether due to willful intent to ignore by the County or to lack of Navy assertiveness, it aptly demonstrates the meaningless and ineffectiveness of the AICUZ and attendant land-use provisions in the DEIS. Given the alternatives under consideration in the DEIS, the Navy should be immediately advocating to the County to place a moratorium on all construction permits not compatible with the 2005 AICUZ and DEIS land-use stipulations until the final EIS is approved.
- 7 The two most dangerous aspects of flying are the approach, landing and takeoff -- in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site.
- 8 Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.
- 9 Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of these wells. Leakage of PFAS in storage or use in a crash event is a hugely relevant environmental impact must be addressed and the public must be given the opportunity to comment.
- 10 The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% overestimated use of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected.
- 10 The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines *torture* as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.
- 11 The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.
- 12 The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated.
- 13 The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated.
- 15 The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

Here is what we are "for," all of which are detrimentally affected by, severely altered or destroyed by the current Navy Growler flights and the Navy DEIS proposals:

quiet walks on the areas beaches
quiet hikes in Washington State Parks (including, but not limited to Deception Pass, Fort Flaggler, Fort Wordern, Fort Townsend
constructive learning environments in our children's classrooms, uninterrupted by excessive noise
a respectful protection of the natural quiet in Olympic National Park
the protection of property values on Whidbey Island, Lopez Island and other areas currently impacted by excessive jet noise
the Navy truly behaving like the "good neighbor"
fiscal responsibility by the U.S. Navy
protection of all terrestrial and marine habitat and wildlife
truly caring for our Veterans and effectively treating all disorders related to military service.

Thank you.

[REDACTED]
Port Townsend, WA 98368
[REDACTED]

Freeland, WA 98249

Deception Pass Park is one of our northwest jewels. I have heard of countless campers having to leave-some in the middle of the night- because the noise is intolerable. I experienced this myself when out for a relaxing afternoon walk there. Relaxing.....ha! Why can't these super loud noisy planes do their practice in less populated places...like Moses Lake?

1.a. Thank You

2.n. Alternatives Considered But Eliminated

7.i. Deception Pass State Park and Other State Parks

Freeland, WA 98249

1.a. Thank You

4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Port Townsend, WA 98368

We live where we do in large part because of the beauty, and unspoiled nature of the Olympic National Park. It was set aside as a national park so that the government would protect this area. It is one of the major stops on migration routes of birds in the country. By building new roads, adding dangerous levels of noise for both humans and animals from jets, and possibly even spontaneously closing parts of the parks for "exercises", you would be doing the opposite of protecting this slice of wilderness. There must be a location for training somewhere that doesn't have such a large impact on a National Park!

1.a. Thank You

10.a. Biological Resources Study Area

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.e. Naval Special Operations EA

2.n. Alternatives Considered But Eliminated

7.d. Recreation and Wilderness Analysis and Study Area

Port Townsend, WA 98368

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Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Submitted on 2/23/17 to: <http://www.whidbeyeis.com/Comment.aspx>

1. Name: [REDACTED]
2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military): citizen
3. Address: [REDACTED], Coupeville, WA 98239
4. Email: [REDACTED]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear. If the burden of these increased operations must fall on Whidbey Island, then it should fall primarily on the residents of Oak Harbor, who predominantly favor these increased operations and will enjoy most or all of their local economic benefits. Coupeville is already being punished by our local government for our perceived failure to be "pro-Navy." The Navy should not compound this punishment by placing the burden of supporting the environmental effects of these increased operations on those citizens who have the least political power to address the consequences of the increase.

Comments (Summary)

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

Health effects from noise and low-frequency sound.

Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.

A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.

A decrease in private property values due to noise.

Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.c. Socioeconomic Impacts
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 12.p. Local Differences in Economy
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 4.a. General Noise Modeling
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.l. Points of Interest
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 5.a. Accident Potential Zones
- 7.d. Recreation and Wilderness Analysis and Study Area
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports
- 8.e. Outlying Landing Field Coupeville and Coupeville History
- 8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve
- 8.h. Ebey's Landing National Historical Reserve, Military Association

Noise impacts on commercial properties including agriculture.

Aquafer and well contamination.

Additional Concerns:

The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.

The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy’s prior scoping forums.

Details:

1. The town of Coupeville and the surrounding Ebey’s Reserve are a recognized local, State and national treasure, described by the National Park Service as "... almost a Paradise of Nature," a "stunning landscape at the gateway to Puget Sound ... [that] preserves the historical, agricultural and cultural traditions of both native and Euro-American – while offering spectacular opportunities for recreation." The unique nature of the land surrounding OLF Coupeville, and the substantial investment of public and private resources that has gone into the creation of this Reserve, are not adequately addressed in the DEIS. Also not addressed is the compatibility of increased Navy operations with the purposes of the Reserve. If the purpose of the DEIS is to determine where to locate these increased operations as between the Coupeville OLF and the vastly larger Navy facilities in Oak Harbor, then it is important to note that Oak Harbor has no comparable investment in preserving "historical" Whidbey Island traditions.
2. The DEIS must address the importance of tourism to the Coupeville area. Here, we’re not talking about an impact that can be assessed by scientists and engineers. If we develop a reputation for being a place where you cannot predictably hold a picnic or go for a hike without being impacted by noise, then tourists are going to go elsewhere, regardless of whatever charts and graphs the Navy might produce.
3. Residents of Whidbey Island are well aware that the economic benefits of Navy operations on the Island are concentrated in the Oak Harbor area, as is the political support for expanded Navy operations. It is no wonder that Oak Harbor residents support these operations: they will reap the benefits, while those of us in Coupeville will bear the costs. We have already seen this on Whidbey Island, as Oak Harbor’s real estate market is booming, while Coupeville’s is stagnant. Again, if the purpose of the DEIS is to determine where these increased operations should take place, then it makes sense to locate them in Oak Harbor, not in Coupeville.
4. Living in Coupeville, it becomes obvious that Navy personnel largely do not come here to shop, dine or otherwise spend money. This is not their home, and sadly, we are not their neighbors. This is reflected in the way Navy fliers frequently ignore instructions to minimize the noise impact of their operations at Coupeville OLF. Siting these operations in the community where they live and shop, Oak Harbor, is most likely to cause pilots to conduct their operations in a way that’s most respectful to their neighbors—that is, the neighbors they best know.
5. We have become aware of the dangerous potential impact of Navy operations on our groundwater. As of this writing, the Navy has not identified a plan to conduct Coupeville OLF operations in a way that is compatible with the safety of our drinking water. Once again, Oak Harbor is in a better position to absorb the impact of hazardous waste spills at their Navy facility, as they have access to drinking water from the mainland.

6. I attended the Navy's terrific presentation at Coupeville High School a month or two ago, and the representatives at that presentation freely admitted that the noise modeling used in the DEIS is inadequate. The idea of using some kind of adjusted average noise level to determine the impact of touch-and-go operations is, quite simply, misplaced. We are not impacted by average noise levels, but by repeated peak noise levels. Consider it this way: if for one minute a day you are hit over the head with a club, your condition is NOT best described as "on average, not hit over the head with a club." Other residents have submitted DEIS comments on noise levels that describe this more scientifically, but I think my analogy will serve.
7. The DEIS fails to address noise impacts in key locations in the community.
8. Any good DEIS should discuss ways in which environmental impacts can be mitigated, but this one does not. There is no consideration of concentrating flights at times of least impact to the community, or banning flights during school hours, or flying on strict pre-published schedules (rather than the vague notices we receive of flights in the "afternoon"), or modifying or eliminating routes that have the biggest noise impact, or banning flights during tourist-oriented festivals and events in the Coupeville region.
9. While the DEIS refers to the Navy's historic cooperation with elected officials, this has not always been the case, and is not consistently the case even now. The DEIS should set forth strict guidelines for this cooperation, including the formation of a continuing civilian-Navy joint task force, with representation from all members of the community, with oversight over Navy operations impacting our local environment.
10. Our children are our most precious resource. The DEIS describes increased interruptions at school, but not how this will impact learning. Learning disability outside of the classroom should also be evaluated. While noise impacts at the Coupeville Elementary School is evaluated in the DEIS, the EIS should also evaluate impacts at Coupeville High School and Middle School.
11. The DEIS describes the proposed increase in OLF operations as similar to historic levels of operation. That's simply not the experience of long-time residents in the area. The graph of Previous Airfield Operations for Ault Field and OLF Coupeville on page 1-6 shows that from 1976 through 2015 OLF Coupeville experienced an average of approximately 13,200 operations per year. A more representational average would be for the 18 years since the A-6 Intruder stopped flying in 1997, which is approximately 5,500 operations per year. In any event, the DEIS calls for approximately 34,500 operations per year. At no time in the history of OLF Coupeville has the number of operations been at the proposed level under this Alternative. Moreover, the DEIS does not consider the historic noise impact of quieter aircraft flying in the past compared to the noisier aircraft flying today.

February 22, 2017

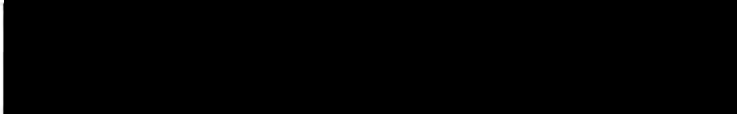
Dear EA-18G Project Manager,

There is no other place in the world like northwestern Washington State, in our opinion. It is something to be cherished and preserved not only for this generation but for those to come. Keeping this in mind along with the general public welfare please review the following situations that currently exist.

1. The landing of fighter jets adjacent to a state highway.
2. Flying at less than 2,000 feet over schools, parks, and residences.
3. The use of jets that cause hearing loss and exacerbate other health conditions.
4. The landing and taking off of planes necessitates the use of chemical fire retardants that contaminate ground water.
5. The reduction and/or extinction of certain species of sea life, especially the Orca Whale.
6. The loss of property value. (We personally owned property that we had to sell at a loss. The reason given was jet noise. Every buyer must now sign a document acknowledging the noise issue.)
7. The stress caused by the loss of peace, quiet, and the ability to concentrate both in the home and in the schools.
8. Current economic studies are showing that the presence of NAS Whidbey is a drain on the local economy not as asset.

It is our request that these destructive issues be weighed against the Navy's request to increase the number of jets located at NAS Whidbey and the accompanying increase in the number of flyovers and touch and goes both at the OLF and NAS Whidbey. To sacrifice northwestern Washington when the possibility exists to relocate all or part of the naval base/operation elsewhere is unacceptable. Please consider closing the OLF and reducing NAS Whidbey.

Thank you for your time and consideration.



Cc: Sen. Murray, Sen. Cantwell, Congressman Larsen, Gov. Inslee

- 1.a. Thank You
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.b. Invisible Costs
- 12.j. Property Values
- 12.n. Quality of Life
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 5.a. Accident Potential Zones

[REDACTED]
Oak Harbor, WA 98277
February 23 2017

- 1.a. Thank You
- 12.k. Compensation to Citizens for Private Property
- 14.a. Transportation Impacts
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.a. General Noise Modeling
- 4.t. Noise Mitigation

EA18-G EIS Project Manager
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard
Norfolk, VA 23508

Attn: Code EV21/SS

Dear Sirs:

I am writing in response to the EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex meeting held December 2016.

The meeting was very informative and answered many of our questions in regards to the noise from the EA-18G. We have lived here for 46 years and purposely built our home outside the flight pattern which now is right over our home. Last summer some days were so terrible that I found myself becoming anxious with the constant noise and just had to leave to somewhere it was quiet. We understand the need for these planes to practice but the pilots also need to understand that they need to respect our space and not use the after-burners when flying over populated areas. There was talk that a device was being worked on that will control some of the noise which cannot come soon enough.

As to OLF in Coupeville, where the greatest complaints are generated, is there any thoughts in purchasing the properties that are directly under the flight path for touch and goes?

We are dismayed as to the lack of planning to house the extra 3000 people that will move here and the officers and enlisted are encouraged to buy or rent within an hour's drive of the Naval Base in Oak Harbor. This has put a great deal of pressure on the 2-lane road system leaving Whidbey Island and Fidalgo Island. This issue was not addressed at the December meeting.

Your consideration will be greatly appreciated.

Sincerely,
[REDACTED]

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name [Redacted]

2. Organization/Affiliation (resident/citizen/business, nonprofit, veteran, retired military)
Residents and Citizens

3. Address [Redacted]
Coupeville, WA 98239

4. Email [Redacted]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments *See Enclosed Letter*

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.b. Invisible Costs
- 12.c. Socioeconomic Impacts
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
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- 12.p. Local Differences in Economy
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.a. General Noise Modeling
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.j. Other Reports
- 4.o. Classroom Learning Interference
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports
- 8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

See enclosed letter

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

[REDACTED]
Coupeville, WA 98239
February 21, 2017

NAS Whidbey Island Complex Growler DEIS

I believe that we have reached the point at which continued operations at the Coupeville Outer Landing Field makes no sense. Yes, the Navy has been operating there since World War II, but a historic community was there for almost 100 years before the Navy arrived. There are residents impacted by noise at OLF whose families have been farming this rich farmland for over 100 years. Native Americans were probably there for 12,000 years. Propellor aircraft of the 1940-1950 era had a much less intense and wide noise footprint than modern tactical fighter jets. Residents generally agree that the noise impacts of the Growlers are worse than the Prowlers that they replaced. The F-18 fleet is nearing the end of its useful life. What will replace them? F-35's? They are no quieter, and some evidence suggests they are even noisier. Perhaps it is time to use drones. Has the drone option been considered?

In 1978 the United States Congress created the Ebey's Landing National Historic Reserve as the first national historic reserve in the National Park system. Ebey's Landing National Historical Reserve preserves the historical, agricultural and cultural traditions of both native and Euro-American – while offering spectacular opportunities for recreation.

Having everything concentrated on one base makes the Growler fleet vulnerable.

Jet noise has been a serious concern of communities near military airfields for a long time. Yet the Navy does not even address aircraft noise in its procurement process for new jets”

“Unfortunately, acoustic signatures have not been critical performance parameters in military tactical aircraft system development programs. For future aircraft programs, concern should be paid to acoustic signature effects on the hearing of our Sailors and Marines as well as the environmental affects on the local air base communities. The Navy must rethink how to incorporate lower noise signatures into a full system parameter requirement.” (Naval Research Advisory Committee Report on Jet Engine Noise Reduction - page 24)

One would think the Navy would be concerned about the noise impact on flight deck crews, who experience some of the highest noise levels of any working environment.

A recent story on CNN says that “Two-thirds of Navy Strike Fighter Jets Can't Fly,” Zachary Cohen, CNN, Feb. 10, 2017. (<http://www.cnn.com/2017/02/10/politics/us-navy-planes-grounded/index.html>) Many F/A 18 strike fighter jets are grounded because of lack of spare parts, etc. The F/A 18 was designed to have a lifespan of roughly 6,000

flight hours. Today, jets are being stretched to fly between 8,000 and 9,000 hours to fulfill mission expectations as a result of fewer operational aircraft, budget restrictions and delays to the fifth-generation F-35 Joint Strike Fighter. It seems like using these aging aircraft increases the risk of an accident near the the vicinity of OLF. Take-off and landing operations present the highest risk of an accident. An accident would intensify aquifer pollution in the vicinity of OLF.

While I don't know if the Navy ultimately plans to replace the Growler fleet with F-35's, available evidence suggests that the F-35's are no quieter than the F-18's, and may even be louder.

It is a sad day when raising legitimate concerns about aircraft noise and toxins in our drinking water is considered "anti - Navy." Recently 2 county commissioners have polarized the presence of the OLF even further by rejecting an economic development grant application by the town of Coupeville because Coupeville's elected city council members raised these legitimate concerns of the people they represent. In reality the Oak Harbor area gets most of the economic benefits of the Navy's presence and Coupeville receives very little. The Navy describes the economic benefits of Ault Field but does not address the economic costs to the community. For example:

Public Costs – Navy personnel and their families use the same services as other businesses on Island County, but if they live or shop on the base they are exempt from local taxation. That means that other residents wind up underwriting a significant part of the Navy's presence.

External Costs – The Naval Air Station's largest program—training pilots to fly "Growler" aircraft—has exposed more than 11,000 residents to harmful levels of noise. The health costs to residents is not addressed in the DEIS. Additionally, the program has depressed property values and this damage will grow as that program expands as planned.

For a complete analysis of community costs please see Invisible Costs, The \$122 Million Price Tag for the Naval Air Station Whidbey Island, by Michael H Shuman, February 2017.

Coupeville receives a disproportionate water quality and noise impacts that are likely to get worse, damaging our agricultural and tourist economy. Businesses in the Coupeville area are far more dependent on tourist and agricultural dollars than Navy dollars.

I would like to address water quality and noise concerns in greater detail.

Water quality

Water contamination to our sole source aquifer is not adequately addressed in the EIS. Except for residents of Oak Harbor who receive city water that is sourced from the Skagit River, the rest of us are on wells that rely on the purity of this aquifer. (I understand that even Oak Harbor's city water supply contains some well water from the aquifer.) The Growler Expansion DEIS is silent on current water contamination and possible future contamination with expanded flight operations.

PFOA and PFOS have been found in some private wells near OLF that exceed the EPA's Health Advisory Levels of 70 parts per trillion (PPT). Some home owners have reported levels as high as 600+ PPT. One of Coupeville's 4 public wells has shown PFOA results of 59 and 62 PPT in 2 separate samples. The Navy is currently testing wells within 1 mile of OLF. PFOA has been linked to kidney and testicular cancers, birth defects, damage to immune system, heart and thyroid disease and pregnancy complications. EPA's Science Advisory Board lists it as a likely human carcinogen.

We simply do not know how far these toxic chemicals have migrated in the aquifer, which is the source of drinking water for residents and businesses in the Coupeville area. We need to have a much better sampling program to measure how far these compounds have travelled. And we need a monitoring program to trace changes over time. Certainly the Navy has records of the quantity and incidence (dates) of fire fighting foam that was used at OLF. The public has a right to know what is poisoning their water.

Well sample data shared by residents suggest that PFOA and PFOS may be flowing towards and into Hancock Lake. This is a well recognized habitat for local and migratory birds. Has the Navy investigated this potential impact?

Residents know of at least one crash and its location near the OLF. PFOAs were used there. Is the Navy investigating contamination at this site, and its impact on the water table?

The Navy knows that these compounds are toxic and dangerous, and they need to quit using them. Why hasn't the Navy switched to environmentally safe, biodegradable fire fighting chemicals for land based operations?

It would be ironic, if in the name of national security, Whidbey Island residents and their children have a greater risk of dying from the Navy's toxic pollution than from a terrorist attack.

Noise

Were actual noise measurements made to determine the impact of Growler operations? Noise modeling is outdated, and average noise levels downplay the real noise impacts

on residents and businesses. Averaging the noise levels to say they are acceptable is a cruel joke. That is kind of like saying that the average victim of an auto accident only gets minor injuries, ignoring those that have been seriously injured or killed. The intensity of jet noise at and near OLF during F-18 operations is no joke.

The Ebey's Landing National Historic Reserve is unique. OLF noise adversely impacts its residents, visitors, historic structures, the environment and wildlife. Individual noise measurements made by the National Park Service show noise levels far in excess of that predicted by average modeling.

I believe that the Navy recognizes that it has a serious problem with jet aircraft noise near its installations, yet has done little to address noise issues. The Naval Research Advisory Committee (NRAC) Report on jet Noise Reduction (April 2009) is instructive.

"Humans have a permanent loss of hearing when the cochlear hair cells of the inner ear die. These cells represent the final transduction mechanism that converts sound energy to nerve impulses to the brain. Noise levels above 85 dBA, that are transferred to the cochlear apparatus, either by air or bone conduction, begin to cause permanent loss of hair cells after continuous exposure for over eight hours. This death is the product of exposure over time, so that the longer an individual is exposed, and the higher the noise level, the greater the loss of cochlear cells. High noise levels produce what is known as "oxidative stress," a process whereby the cell's metabolic machinery produces high levels of free radicals. These free-radicals, in high enough concentrations, precipitate a phenomenon known as programmed cell death, or "apoptosis." The relationship between noise levels and hearing loss and the mechanism of cell death is well established and understood." - NRAC p28. Emphasis added.

The report also points out that "Investment in tactical Jet Engine noise reduction has been inadequate..." NRAC p39

This report notes that jet noise is not even a criteria in the Navy's procurement process for new aircraft.

Civilian airports and commercial aircraft operators have done a much better job of addressing noise issues. The NRAC report suggests that there are possible remedies:

"From a community noise perspective, changing the flight path and engine power during noise sensitive operations can be beneficial. Commercial aircraft use a procedure called "cutback" where the engines are throttled back just after takeoff. The aircraft then climbs at a slower rate until away from the airport community and then resumes a higher climb rate. This procedure is perhaps the most promising and practical for reducing noise near military air fields because it does not require changes to the aircraft – and can reduce jet noise by 10 dB or more. Eliminating afterburner during takeoff will also provide a significant noise reduction benefit. Afterburners increase the jet noise levels by 5 to 10 dB above military power."

Naval Research Advisory Committee - page 13

Have these kind of noise abatement procedures been considered by the Navy?
Commercial operators would not be doing this if it were unsafe.

The NRAC report notes that all tactical aircraft engines grow in thrust over time, and that equates to even greater noise in the future. (NRAC p49). This suggests that the community will get no relief as aging aircraft are replaced in the future.

Property values are adversely impacted by noise (and contaminated water). This is a government taking. Will people be compensated for their loss?

Alternatives to using Coupeville OLF were not adequately addressed in the EIS.

Respectfully,





Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex*.

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) **Provide written comments** at today's public meeting; (2) **Speak with the stenographer**, who will record your comments; (3) **Submit your comments on the project website** at www.whidbeyeis.com; or (4) **Write your comments and mail them** to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name

[REDACTED]

2. Organization/Affiliation

3. Address

[REDACTED] Coupeville WA 98239

4. E-mail

[REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

The EIS does not assess ALL of the health impacts of more jets flying.

What assessment will be done about the public impact on psychological, emotional & spiritual health?

What assessment will be done on the increase anger, disdain & hatred this plan will generate towards navy personnel - they already are

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

1.a. Thank You

1.d. General Project Concerns

2.b. Scope of the Environmental Impact Statement and Analysis Conducted

4.r. Nonauditory Health Effects

4.s. Health Impact Assessment and Long-term Health Study Requests

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

Not welcome in our communities & this action will multiply the negative & prejudicial treatment of Navy personnel & their families.

How does the Navy justify the ethical conflict of interest of doing your own EIS?

Its like Exxon doing an EIS about the Exxon Valdez oil spill & deciding there was no damage.

The Navy is not welcome here by many residents & this proposed action will make it more difficult for the Navy to ever be welcome.

For more information, please visit the project website at whidbeyis.com

Please print

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

I don't believe this

Greenbank, WA 98253

ATTN: EA-18G EIS Project Manager, Naval Facilities Engineering Command (NAVFAC)
Atlantic – Attn: Code EV21/SS, 6506 Hampton Blvd., Norfolk, VA 23508

1. The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).
2. The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather than busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.
3. The DEIS claim that the JGL noise study was "flawed" is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data.
4. The DEIS misconstrued important findings of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts.
5. Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.
6. The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").
7. Island County land-use policies, plans, as reflected by the construction permits issued, have largely defied the Navy's 2005 AICUZ directives for Outlying Field Coupeville, such as no residences in a noise zone 2. Whether due to willful intent to ignore by the County or to lack of Navy assertiveness, it aptly demonstrates the meaningless and ineffectiveness of the AICUZ and attendant land-use provisions in the DEIS. Given the alternatives under consideration in the DEIS, the Navy should be immediately advocating to the County to place a moratorium on all construction permits not compatible with the 2005 AICUZ and DEIS land-use stipulations until the final EIS is approved.
8. The two most dangerous aspects of flying are the approach, landing and takeoff – in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site.
9. Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.
10. Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of these wells. Leakage of PFAS in storage or use in a crash event is a hugely relevant environmental impact must be addressed and the public must be given the opportunity to comment.
11. The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% overestimated use of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected.
12. The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain or suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.
13. The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.
14. The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs). That and failure to address the effects of impact or sudden noise must be more fully delineated.
15. The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 13.a. Environmental Justice Impacts
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.e. Field Carrier Landing Practice Patterns
- 3.f. Field Carrier Landing Practice Operation Totals
- 3.g. Field Carrier Landing Practice Evolutions and High Tempo
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.j. Other Reports
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children
- 7.c. Noise Disclosure

Greenbank, WA 98253

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP)

Greenbank, 98253

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

Greenbank, WA 98253

The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports

Greenbank, WA 98253

1.a. Thank You
4.j. Other Reports

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts

Greenbank, WA 98253

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4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature

Greenbank, WA 98253

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month")

Greenbank, WA 98253

1.a. Thank You
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Greenbank, WA 98253

The two most dangerous aspects of flying are the approach, landing and takeoff -- in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Greenbank, WA 98253

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

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Greenbank, WA 98253

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- 1.a. Thank You
- 3.e. Field Carrier Landing Practice Patterns
- 3.f. Field Carrier Landing Practice Operation Totals
- 3.g. Field Carrier Landing Practice Evolutions and High Tempo

Greenbank, WA 98253

- 1.a. Thank You
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects

The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations

Greenbank, WA 98253

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1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects

Greenbank, WA 98253

1.a. Thank You
4.q. Potential Hearing Loss

The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated

Greenbank, WA 98253

1.a. Thank You

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Greenbank, WA 98253

1.a. Thank You

4.r. Nonauditory Health Effects

The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

Victoria, British Columbia V8V 2J1

While I recognize the importance of the US Navy, I hope you can find a way to decrease the noise impact on downtown Victoria. The roar used to be like occasional rolling thunder, but has steadily been increasing in frequency to a level more like a permanently noisy factory. I'm disappointed to hear the flights will increase further. I'm hoping you can find an alternate flight path or a quieter aircraft technology soon.

- 1.a. Thank You
- 3.a. Aircraft Operations
- 4.t. Noise Mitigation

1.a. Thank You

victoria, British Columbia v8z3z1

keep up the good work for all our benefit. good luck

Coupeville, WA 98239

1.a. Thank You
12.b. Invisible Costs
12.j. Property Values

I am concerned that the NAVY has not done an adequate assessment of the impacts of both the increased real (not averaged) decibel levels of the Growlers as well as the proposed enormous increase in operations on our property values. A recent study shows that island residents have already suffered a \$9.8 million loss in property value because of jet noise. This is bound to increase with the increase in flights.

Coupeville, WA 98239

As an amateur naturalist with a +40 year history of birding experience including leading field trips and teaching classes I would say the navy's EIS does not assess the damage inflicted on wildlife especially hearing dependent wildlife. All animals are impacted by noise especially sudden, unexpected noises. It is disruptive physiologically and in causing alarm results in wasted energy in reacting something ill afforded by creatures who live on a very thin energy budget. I am most concerned about owls which Whidbey has in abundance including: Great horned owls, Barred owls, Barn owls, Sawwet owls which are primarily nocturnal relying on their hearing to find prey but also Short-eared owls which are crepuscular and not as dependent. Animals need their hearing to avoid predation hence the rabbits and deer's large and mobile ears. If their hearing is damaged which it will be with these documented decibel levels they are more vulnerable. These flights will take place right over Crockett's lake an officially designated Important Birding Area (IBA) by the national Audubon Society. It is a major migratory stopover ie refueling/rest/wintering station for tens of thousands of shorebirds, thousands of ducks who are the prey for raptor species like Peregrine falcons and Bald eagles upon which their populations dependent. A crash or fuel dump on or near the lake could be devastating.

1.a. Thank You
10.c. Wildlife Sensory Disturbance and Habituation
11.c. Marine Waters and Sediment
6.f. Fuel Dumping
6.g. Chaff

Freeland, WA 98249

1.a. Thank You
12.i. Housing Access and Affordability
4.t. Noise Mitigation

There already is a severe lack of affordable housing on Whidbey and it would be very difficult to absorb such an increase in personnel and dependents. In addition, the noise level of the EA-18G Growlers is much higher than that of aircraft previously used. This small island just cannot absorb the increased noise volume. I believe the technology exists to develop mufflers for these planes and hope the Navy will consider this option.

[REDACTED] LLP
 Attorneys at Law

[REDACTED]

[REDACTED]

February 24, 2017

EA-18G EIS Project Manager
 Naval Facilities Engineering Command (NAVFAC) Atlantic
 Attn: Code EV21/SS
 6506 Hampton Blvd.
 Norfolk, VA 23508

Online submission at project website

Re: Comments on Growler DEIS

Dear EIS Project Manager:

This office represents [REDACTED] a property owner in the City of Oak Harbor. [REDACTED] owns approximately 13 acres east of Highway 20, located just off the southeast end of Runway 13-31 at Naval Air Station Whidbey Island (NASI). It is the closest private property to the centerline of Runway 14-32

On December 5, 2014, I wrote you providing comments on the revisions to the scope of the environmental impact statement process for the addition of new EA-18G aircraft. A copy of that letter is attached for your ready reference.

The Growler DEIS provides substantial detail on the impacts of the new aircraft to be operating out of NASWI. The data provided shows significant additional flight operations and corresponding increases in noise levels over the [REDACTED] property. As a practical matter, the noise increases and the potential for additional accidents will eliminate any value for the [REDACTED] property.

Several years ago, the Navy, recognizing the impacts to property immediately under the flight path, purchased the [REDACTED] property just north of the [REDACTED] property. In recent years, there has been useful communication and correspondence between my clients and the Navy concerning the acquisition of this property. My client fully supports the mission of the Navy in this area and the contribution that the additional Growler

- 1.a. Thank You
- 12.c. Socioeconomic Impacts
- 12.j. Property Values
- 12.k. Compensation to Citizens for Private Property
- 12.o. Cost-Benefit Analysis
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted

February 24, 2017
Page 2

aircraft will have to national defense. However, the burden of this program should not fall disproportionately on land owners who are under the flight pattern for the increased number of aircraft.

An essential element of the preparation of environmental impact statements under NEPA is to address mitigation. 40 C.F.R. §1505.2(c) provides that an agency decision-maker shall:

(c) State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation

In this case, appropriate mitigation is to acquire properties which are rendered valueless because of operations of the new aircraft. Accordingly, the acquisition by the Navy of the [REDACTED] property for fair market value is appropriate.

In the present circumstances, though the additional Growler aircraft have not yet begun operations at NASWI, the long review period leading to the operational decision impacts property values now. Prospective purchasers engaging in environmental and financial due diligence will not purchase property with the cloud of the additional aircraft operations. Local decision makers, investors and property owners all believe that the Navy will place the new Growler aircraft at Whidbey given the existing deployment and economies of scale associated with operations and training at a single location.

While we understand the need to address cost considerations in military deployment decisions, the overall impact and financial impact need to be taken into account in this decision. My client urges the Navy to take account of these impacts in preparation of the final environmental impact statement and to begin immediate steps to acquire the [REDACTED] property.

Thank you in advance for your attention to these comments.

Sincerely yours,

[REDACTED], LLP

[REDACTED]

JRA:cc

cc: [REDACTED]

Captain Geoffrey C. Moore, Commanding Officer, NASWI
Community Planner, NASWI

[Redacted] LLP
Attorneys at Law

[Redacted]

[Redacted]

December 5, 2014

EA-18G EIS Project Manager
Naval Facilities Engineering Command (NAVFAC) Atlantic
Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

Online submission at project website:
<http://www.whidbeyeis.com>

Re: Revisions to Scope of the ongoing Environmental Impact Statement (EIS) for
EA-18G Growler airfield operations at Naval Air Station (NAS) Whidbey Island

Dear EIS Project Manager:

This office represents [Redacted], a property owner in the City of Oak Harbor, Washington. [Redacted] owns 13 acres east of Highway 20 in Oak Harbor, located just off the south end of Runway 13-31 at Naval Air Station Whidbey Island (NASWI).

The [Redacted] property is heavily impacted by current flight operations at NASWI. Indeed, [Redacted] 13 acre parcel has been zoned with significantly lower densities than other comparable properties because of the presence of existing aircraft. Accordingly there has been a devastating depreciation in value of the [Redacted] property in this area.

The environmental impact statement in preparation will address the impact of at least 36 new aircraft at NASI and with recent revisions will also consider the impacts of an additional 22 aircraft. The new aircraft apparently have a louder noise signature than the existing EA-6B aircraft.

Given the increase in number of aircraft, increase in operations and higher noise signature, the draft environmental impact statement for this action should include the

2014

December 5, 2014
Page 2

following information, discussion of environmental impacts and mitigation measures.

1. FLIGHT OPERATIONS.

How many additional operations will occur with the new aircraft? What percentage of these operations will occur during daytime and evening hours? How many of these operations will be "touch and go? "

2. NOISE.

Will the addition of the new aircraft increase noise on the ground? If so, how much increase in noise is anticipated?

3. ACCIDENT POTENTIAL.

What is a potential for accidents from the new EA-18G aircraft? Has there been sufficient operational use of these aircraft to provide a prediction of accidents? How does the potential for accidents compare with the existing EA-6B aircraft?

4. LAND USE.

Will the addition of the new EA-18G operations create land use impacts? Will there be a new AICUZ study taking account of the additional aircraft? Are the operations from the new EA-18G aircraft likely to create the need for changes in local zoning or building regulations?

Will the Accident Potential Subdistricts change or vary in size based on the new EA-18G aircraft? How will these changes impact land use in the vicinity?

5. MITIGATION OF IMPACTS.

How does the Navy intend to mitigate the impacts above?

In relation to the [REDACTED] property, there is no question that increased aircraft and operations will result in substantially greater impacts than presently exist. Indeed, in 2007, to mitigate for existing adverse impacts from NASWI aircraft operations, property to the north of [REDACTED] (the [REDACTED] property) was purchased and is now in public ownership.

During 2009, there was consideration of a purchase of the [REDACTED] property, but that proposal was not finalized. The new deployment of the EA-18G, with additional operations and a louder noise signature, will result in greater impacts on the [REDACTED] property. The impacts will render this already highly impacted property

December 5, 2014
Page 3

owners will be compensated for the loss of all reasonable use of their property.

It is recommended that one of the mitigation measures appropriate to the impacts of the new EA-18G aircraft is the purchase of highly impacted properties, such as the [REDACTED] property.

Thank you for your consideration of these scoping comments.

Sincerely yours,

A large black rectangular redaction box covering the signature and name of the sender.

JRA:cc

cc: [REDACTED] LLP
Captain Michael K. Nortier, Commanding Officer, NASWI
Community Planner, NASWI



Imagery ©2014 Google, Map data ©2014 Google 2000 ft

Oak Harbor, WA 98277

This office represents Harbor Lands L.P., a property owner in the City of Oak Harbor. Harbor Lands owns approximately 13 acres east of Highway 20, located just off the southeast end of Runway 13-31 at Naval Air Station Whidbey Island (NASI). It is the closest private property to the centerline of Runway 14-32. On December 5, 2014, I wrote you providing comments on the revisions to the scope of the environmental impact statement process for the addition of new EA-18G aircraft. A copy of that letter is attached for your ready reference. The Growler DEIS provides substantial detail on the impacts of the new aircraft to be operating out of NASWI. The data provided shows significant additional flight operations and corresponding increases in noise levels over the Harbor Lands property. As a practical matter, the noise increases and the potential for additional accidents will eliminate any value for the Harbor Lands property. Several years ago, the Navy, recognizing the impacts to property immediately under the flight path, purchased the Boyer property just north of the Harbor Lands property. In recent years, there has been useful communication and correspondence between my clients and the Navy concerning the acquisition of this property. My client fully supports the mission of the Navy in this area and the contribution that the additional Growler aircraft will have to national defense. However, the burden of this program should not fall disproportionately on land owners who are under the flight pattern for the increased number of aircraft. An essential element of the preparation of environmental impact statements under NEPA is to address mitigation. 40 C.F.R. §1505.2(c) provides that an agency decision-maker shall: (c) State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not. A monitoring and enforcement program shall be adopted and summarized where applicable for any mitigation. In this case, appropriate mitigation is to acquire properties which are rendered valueless because of operations of the new aircraft. Accordingly, the acquisition by the Navy of the Harbor Lands property for fair market value is appropriate. In the present circumstances, though the additional Growler aircraft have not yet begun operations at NASWI, the long review period leading to the operational decision impacts property values now. Prospective purchasers engaging in environmental and financial due diligence will not purchase property with the cloud of the additional aircraft operations. Local decision makers, investors and property owners all believe that the Navy will place the new Growler aircraft at Whidbey given the existing deployment and economies of scale associated with operations and training at a single location. While we understand the need to address cost considerations in military deployment decisions, the overall impact and financial impact need to be taken into account in this decision. My client urges the Navy to take account of these impacts in preparation of the final environmental impact statement and to begin immediate steps to acquire the Harbor Lands property. Thank you in advance for your attention to these comments.

1.a. Thank You
12.c. Socioeconomic Impacts
12.j. Property Values
12.k. Compensation to Citizens for Private Property
12.o. Cost-Benefit Analysis
2.b. Scope of the Environmental Impact Statement and Analysis
Conducted

Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

Open House Comments

Fill in and Submit at the Open House

1. Name [Redacted]

2. Organization/Affiliation [Redacted]

3. Address [Redacted] LAPEZ Island, WA 982.

4. E-mail [Redacted]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like your name/address kept private

7. Please check here if you would like to receive a CD of the Final EIS

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered but Eliminated
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.m. Supplemental Metrics
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

- 1. Evaluate impacts of the Growler at low frequencies (C-weighted, dBC).
- 2. Recognize the impacts of low frequency Growler noise on health.
- 3. Incorporate San Juan County noise reports in the EIS analysis.
- 4. Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.
- 5. Evaluate a new Alternative that deploys UCLASS jets instead of more Growlers.
- 6. Commit to Mitigation Measures and timelines in the Record of Decision.
- 7. Add your own comments here:

(Continue on the back)

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations
at Naval Air Station Whidbey Island Complex January, 2017 Comments

ISSUE 1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.

COMMENT 1: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).

ISSUE 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.

COMMENT 2: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.

ISSUE 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.

COMMENT 3: Redo the noise simulation using the more recent Advanced Acoustic Model.

ISSUE 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.

COMMENT 4: Noise levels should only be averaged over active flying days.

ISSUE 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.

COMMENT 5: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."

ISSUE 6. The Draft includes some independent noise measurements and ignores others.

COMMENT 6: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

ISSUE 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. NEPA protection was granted prior to the establishment of the SJI National Monument.

COMMENT 7: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

ISSUE 8. The three Alternatives considered in the Draft are very similar and are based on old technology - a piloted jet that requires constant pilot training for safe carrier landing.

COMMENT 8: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

ISSUE 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

COMMENT 9: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

ISSUE 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures are addressed, there is no commitment.

COMMENT 10: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

ISSUE 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion."

COMMENT 11: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

Name: _____
Address: _____

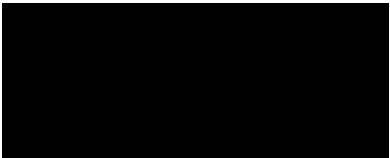
Anacortes, WA 98221

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/on-site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.k. Comparison of the Prowler to the Growler
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

2/16/11
The EA-18 G Growler cannot be reasonably compared with its predecessor the Prowler as the Noise Profile is orders of magnitude more destructive. Practically speaking, it is not possible to use historical flight patterns or numbers to comment on impacts to the environment.

This aircraft even at present levels of activity is intolerable & represents an assault on the American people that call this region home.

Your environmental impact study is flawed and does not even admit to the level of damage done to man & beast below. The noise belongs much further from so many people to avoid serious harm & terrorization to US citizens.



Oak Harbor, WA 98277

I am a Lifetime resident of North Whidbey. In my 63 years, this is my first public comment in regards to Naval operations here on the Island. I believe many facets need to be carefully considered prior to allowing the navy to expand their operations here. 1. Noise levels are already unacceptable, in fact I have recorded levels in excess of 108db right here at my residence on [REDACTED]. Any industry would consider noise at this amplitude (even short term) damaging to health. When the F18's are flying, I cannot allow my grandchildren to play outdoors. I have personal view that the navy should provide a grant to home owners in this area so that they may furnish their structures with sound deadening material. 2. There is already a shortage of housing available in this area! 3.Traffic. The housing shortage make it necessary for base employees to commute onto and off the island. Deceptions pass bridge is an aging structure,and is already inadequate to support traffic volumes now. At times SR20 (also overused) can be backed up for miles with cars delayed for hours if an incident occurs. Think of the vehicle emissions from this aspect alone. If expansion is allowed, the navy must commit to funding additional access to the island such as a new bridge in another location(east side of island) also consider giving up part of the existing base for a commuter airline service. 4. I have read reports of ground water contamination . Also is there enough potable water available to support the additional people and activities? Thank you for allowing me to provide my input!!

1.a. Thank You
11.d. Per- and Polyfluoroalkyl Substances
12.i. Housing Access and Affordability
12.k. Compensation to Citizens for Private Property
12.n. Quality of Life
14.a. Transportation Impacts
14.d. Bridges and Ferries
4.r. Nonauditory Health Effects

Oak Harbor, WA 98277

I have lived in Oak Harbor for the last 15 years. In general, I believe the predicted sound patterns presented in the NAS Whidbey IES model seem reasonably accurate. However, the actual sound levels are much higher at times. We live at Polnell Shores just SE of the Crescent Harbor Public school (closest sound monitor point). Once jets approach Saratoga Passage water, their acceleration causes db sound levels so high that it is impossible to carry on a conversation. Note also that jets frequently fly over the land instead of continuing South as your EIS displays. So, by altering your flight path parameters in your model to reflect my description above, the conclusion that have been drawn are incorrect. I realize that this makes no difference to NAS Whidbey, but if the sound modeling in the EIS would reflect Operational changes that keep jets on the intended flight path to reduce noise levels then the public would be more supportive. Regards, [REDACTED] P.E.

- 1.a. Thank You
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 4.m. Supplemental Metrics
- 4.n. Speech Interference (Indoor and Outdoor)

Freeland, WA 98249

- 1.a. Thank You
- 2.e. Public Involvement Process

I need to see all the facts. Please include me in all discussions and times of meetings.

Coupeville, WA 98239

1.a. Thank You
12.j. Property Values
7.a. Regional Land Use and Community Character

The current rate of flyovers over Coupeville is barely tolerable. The news that the Navy intends to increase the number to 35000 has been greeted with disbelief and dismay. The planes come in about 500 feet from my house. If I am outside, I have to stop what I am doing and cover my ears. If I am inside, I have to close all the windows, which is minimally effective. The tension that the noise creates is distressing. If the Navy is allowed to do what they want, there will be no break from the noise. I know of two people who have tried to sell their homes in Coupeville, and both sales fell through when the buyers found out about the Navy's plans. The noise is deafening, and we here foresee a profound impact on the quality of life in our town, which is a National Historic Reserve.

Oak Bay Municipality, British Columbia V8S @w9

- 1.a. Thank You
- 2.e. Public Involvement Process

You have a nerve adding more noise pollution to our environment. I live in Oak Bay, B.C. & am sick and tired of hearing your blasted damn planes all the time. Come to Canada and have a public open house -- you'll get an ear full and then YOU CAN HEAR WHAT WE ARE FORCED TO ENDURE!

Clinton, WA 98236

1.a. Thank You
4.o. Classroom Learning Interference

I do not support the increase in Growler operations. The noise interruption during the school day is already odd. The idea of increasing it five times over is crazy.

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

- 1.a. Thank You
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

1. First Name _____

2. Last Name _____

3. Organization/Affiliation Citizen

4. City, State, ZIP Lopez Island, WA 98261

5. E-mail _____

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

Evaluate the impact at the low frequencies of Growler using C-weighting (dBC) in addition to A-weighting. I want to see the results plus the data for simulation. Calculate/calibrate the model with actual noise measurements in real locations in our region. Use & report the outcome of advanced Acoustic Model. Only give us the summarized info from actual flying days. Use WHO to put your data against. Add 56h Acoustics outcomes to your analysis.

01/08/16

www.QuietSkies.info

Lopez Island, WA 98261

I can feel the growler internally which lasted where I could feel it for over 24 hours and it is not a healthy feeling. Is the damage done to me internally lasting longer than 24 hours. Is this being researched? The sound is too much and too often - NOISE POLLUTION. If the capital letters are offensive, now you know how people who have to live in the noise feel. I don't believe in collateral damage and will continue to join in saying this is not good for people, animals, environment.

- 1.a. Thank You
- 12.n. Quality of Life
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Greenbank, WA 98253

I live in Greenbank and I am affected by the Growler noise, and I am deeply concerned about the increase of touch and go flights. The sound disturbs my sleep and creates anxiety for myself and my family. I am also very concerned about the affects of OLF and the Poison int of the Whidbey aquifer. We have a well as our main source of drinking water. Access to clean water is a human right! I am concerned for the local organic farms whom I purchase food from, I have heard they are considering moving. The impact on the Coupeville schools is intolerable. I was a child who lived on Air Force Bases and understand the effects of jet noise on my schooling. I believe strongly that OLF should remain closed, and the Navy should access other flight fields like the desert fields in California. Yours sincerely, [REDACTED]

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects

Victoria, British Columbia V8n 3z9

Every few days my house shakes like there's an earthquake. Some days it's more intense than others. Your fighter jets are the cause. So WTF @usairforce?? You are contaminating the airspace and our environment! We live in this stunning place that has, so far, been protected from the ravages of large scale industrial devastation. Why do you have to #ThinkWithYourDicks and expand your already too big war machine mentality to invade our pristine environment?? You could destroy the world how many times over with your existing arsenal?? Are you f**ing nuts?? So please, don't expand your testosterone wet dream plans into our neighbourhood, I'm not appreciating your methodology!! Whales, marine life and those who can't speak for themselves are not appreciating your way of solving problems either - this kind of noise pollution is highly disruptive to their communication systems and well being. Please, I'm appealing to your humanity, your methods are negatively affecting this corner of life on earth. Can you please find less polluting ways to solve your problems? Yours sincerely [REDACTED]

1.a. Thank You

10.m. Impacts to Marine Species and Habitat

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Coupeville, WA 98239

Dear Sir/Madam, Thank you for extending the comment period to February 24, 2017, in order accommodate the fact that having four major public processes open over the holidays, all concerning Navy activities or the biological resources that may be affected by them, made it difficult to read, comprehend and prepare comments in a timely way. 1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because all flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects. 2. Impacts to cultural and historic sites are not adequately considered. The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy.

(http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as "normally unacceptable" and above 75 as being "unacceptable."

(<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/>) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). 3. Piecemealing projects to avoid analyzing cumulative effects is illegal. The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions: 1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft; 2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers); 3. 2012 EA (26 Growlers including 5 from a reserve unit); 4. 2014 EA (Growler electronic warfare activity); 5. 2015 EIS discussing electronic warfare training and testing activity; 6. The current 2016-2017 DEIS (36 Growlers); 7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160. Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.c. Segmentation and Connected Actions
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.f. Endangered Species Impact Analysis Adequacy
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property
- 19.a. Scope of Cumulative Analysis
- 19.b. Revised Cumulative Impacts Analysis
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 19.h. Cumulative Impacts on Biological Resources
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.e. Public Involvement Process
- 2.h. Next Steps
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.d. Arrivals and Departures
- 4.a. General Noise Modeling
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.i. Other Noise Metrics Not Currently in Analysis
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 8.a. Cultural Resources Area of Potential Effect
- 8.c. Noise and Vibration Impacts to Cultural Resources
- 8.j. City of Port Townsend Cultural Resources

limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville alone went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are “no significant impacts.” The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) “...does not allow an approach that would permit dividing a project into multiple ‘actions,’ each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.” The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability. 4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water. 5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is “turning out fully trained, combat-ready Electronic Attack crews.” 6. The current comment period on a Draft EIS should not be the last chance the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The “30-day waiting period” proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts. 7. There are no alternatives proposed in this DEIS that would reduce noise. This violates NEPA §1506.1, which states, “...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives.” According to a memo from the President’s Council on Environmental Quality (CEQ) to all federal agencies, “Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply

desirable from the standpoint of the applicant.”

(<https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the “loser” among these communities. 8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative in the DEIS. According to the CEQ memo, “[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to “identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . .” Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative. 9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010 with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are “tiered” for this purpose, but they are not. Had the activities contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula. 10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the “Affected Noise Environment” around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy’s ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas. 11. The Navy’s claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the “library” of sounds that comprise the basis for the Navy’s computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are “presumably habituated” to noise do not apply when that noise is sporadic

and intense. 12. Commercial airport noise standards should not apply to military jets because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public. 13. The Navy's noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers. 14. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible.

(<https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>) 15. The Navy describes its activities using the term "event," but does not define it. Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them. 16. New information that was not disclosed in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: <https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control. 17. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA

documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed. 18. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets. 19. No mitigation for schools: The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to not allow a comment period on the Final EIS would be unlawful. 20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period. 21. Crash potential is higher: With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable. 22. Contamination of drinking water in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant. 23. Navy knew about contamination in advance: It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of

“identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam].” Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: “Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e).” The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word “perfluoroalkyl” or “PFAS” is not mentioned once in the entire 1400-page DEIS, nor is it mentioned in the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals.

(<https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf>) 24. No mention of contaminated soil is found in the DEIS: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water. 25. Impacts to wildlife have been piecemealed: It does not make sense to separate impacts from just one portion of an aircraft’s flight operations and say that’s all you’re looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy’s study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual “events,” which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process. Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted. 26. Pages of boilerplate language do not constitute analysis of impacts to wildlife: Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is “greatest during flight operations.” However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is “highly unlikely,” largely because “no suitable habitat is present.” This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly

likely that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area. 27. Old research cited but new research not: In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB.

(<http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract>) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds,"

(<http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html>) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the best available science. This DEIS fails that test. Thank you for considering these comments.

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COMMENTS: The Risks of Single-Siting EA18G Growlers at NASWI On a visit to Washington D.C. and to the Pentagon by COER Board members in March 2014, Deputy Assistant Secretary Schregardus was asked about the Navy's one-site Growler policy. He was totally silent on the issue and did not answer our question. So, it is unclear why the Navy has concentrated its EW jet aircraft in one geographic location. Single siting of any military function is a violation of the Technical Joint Cross Service Group (TJCSG) guidelines. TJCSG was formed in the wake of the Base Realignment and Closure Act of 1990 (BRAC) to make recommendations to optimize defense structure for cost and strategy. One of the TJCSG's two guiding principles was "Maintain competition of ideas by retaining at least two geographically separated sites, each of which would have similar combination of technologies and functions. This will also provide continuity of operations in the event of unexpected disruption (page 5)." The Navy currently is in the position of holding the entire US military electronic warfare jet aviation asset of 82 Growlers in one vulnerable location. Per its 2016 Draft Environmental Impact Statement (DEIS), the Navy plans to add 35-36 more aircraft to NAS Whidbey, bringing the total number of Growlers to 118. In the same DEIS, the Navy maintains this single siting decision is reviewed annually under the Chief of Naval Operations' Strategic Laydown and Dispersal plan, "...and is consistent with Navy aviation policy to maximize efficiency of operations by co-locating operational squadrons with support functions, training ranges, and airfields. (pages 2-13)" The reasons cited for the concentration of Growlers are operational synergy, proximity to training regions and airspace and efficient use of current infrastructure. Upon review of the references in the DEIS however, there is no citation of the Strategic Laydown and Dispersal Plan and no verification of the Navy's claim of review. The Navy's 2012 Environmental Assessment for the Prowler to Growler transition references the 2008 version of the plan as a rationale to homeport the expeditionary squadrons at Whidbey (pages 1-5). Unfortunately, neither the 2008 nor 2011 versions of the Strategic Laydown and Dispersal Plan are available publicly. Operational review of this single siting decision therefore cannot be verified. The Navy shows no signs of changing or mitigating the siting of Growlers on Whidbey Island even after its proposal in the current DEIS. Per the Selected Acquisition Report from the Department of Defense, the Navy plans to procure another 42 Growlers, bringing the total number of Growlers to 160 aircraft, nearly double the current fleet size. Less the 7 aircraft forward deployed to Japan, leaves 153 aircraft to be stationed at NAS Whidbey Island. This total number is not apparent in the DEIS and source documents had to be found outside of the DEIS. This means that 96% of the entire US fleet of electronic warfare aircraft is based on a coastal island served by a bridge and two ferries, in a post-9/11 world where terrorist threats exist...and in one of the most seismic-prone areas in the continental United States. Whidbey Island – Idyllic and Extremely Vulnerable Whidbey Island, located at the northern part of Puget Sound is accessible from the North by the Deception Pass Bridge. The bridge, over 180 feet from the water, was built in 1935 by the Civilian Conservation Corps, and is on the National Register of Historic Places. The two-lane bridge encompasses two spans and is a total of 1,487 feet long, with an average daily traffic of between 17,000-20,000 vehicles. As Whidbey Island is served by an EPA designated sole-source aquifer, the Deception Pass Bridge also brings in a 24-inch water line that

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 14.d. Bridges and Ferries
- 15.a. Infrastructure
- 16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)
- 2.a. Purpose and Need
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.d. Program of Record for Buying Growler Aircraft
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations

serves NAS Whidbey and the city of Oak Harbor. The Deception Pass Bridge lies on State Highway 20 and joins Whidbey Island to Fidalgo Island, its neighbor to the North. Fidalgo Island is then connected to the mainland by another bridge near LaConner, Washington. It is the only land-based access to Whidbey Island. The only remaining way to access Whidbey Island is by its two ferry routes – from Port Townsend on the Peninsula to Coupeville in Central Whidbey, and from Mukilteo on the mainland to Clinton on South Whidbey. Outside these two ferry routes and the Deception Pass Bridge, there are no other ways for vehicles to access the Island. These limited forms of access can serve as a choke point to limit egress from the Island in an emergency or prevent access of needed commodities or first responders. The 2007 Hazard Identification and Vulnerability Assessment from Island County confirms that Whidbey Island is "...vulnerable to several types of transportation emergencies including blocked bridges and interrupted ferry service". This makes Whidbey Island vulnerable to potential terrorist attacks. A US Naval Institute (USNI) article describes that single-siting all EW assets in the Pacific Northwest makes it difficult to provide proper cross-training, as "over half of the Army, Marine Corps, SOF and tactical Air Force units are in the eastern U.S. Additionally, DoD has a sizable investment in East Coast ranges that continue to be under-utilized for EW training." Siting new expeditionary Growlers on the East Coast would establish a geographic balance that is "consistent with long-term Navy policy." Col. Whitten, in this article, recommends the Pentagon take a look at regional benefits and site new Growlers at Marine Corps Air Station Cherry Point, and not NAS Whidbey Island. "Ironically, the increase in aircraft loading at NAS Whidbey Island has created an environmental impact even as the draw down in EA-6Bs at Marine Corps Air Station Cherry Point, NC, and delays in the F-35B deliveries are causing serious economic concerns. One would think North Carolina officials would see now is the time to put aside fears that questioning the EA-6B drawdown would somehow be viewed as threatening the F-35B. In fact, they should be making the case to homeport the Navy expeditionary EA-18Gs at MCAS Cherry Point." New Growlers Need a Second Site – East Coast Options Single siting the entire electronic warfare jet arsenal on the West Coast, with one service, on an island served by a vulnerable bridge and ferries is a major operational security risk. This geographic location reduces operational readiness in a warfare strategy that right now has only one active aircraft with all services dependent upon it. The delivery of 36 new Growler aircraft (plus 42 more on order) provides the Navy with a prime opportunity to site its EW assets at a more operationally beneficial location. This would not only reduce the environmental impact at NAS Whidbey (whose outlying field does not meet current standards for the aircraft), but would enhance operational security and readiness, and provide another community the economic benefit of a modest group of vital aircraft. MCAS Cherry Point, North Carolina is a viable option as it has EW infrastructure from its time hosting the E/A-6B Prowler. There are also other options like Naval Air Station Kingsville, Texas, which has a low population density, updated outlying field, proximity to the East Coast and ready access to the Gulf Coast. Creative solutions can and must be found to safeguard the Growler, which is a vital asset to US military defense. Loss of jet electronic warfare capability would paralyze all US (and Coalition) airborne missions. Redundancy is key in protecting this vital resource and is practiced with every other jet aircraft the Navy owns. Finding another base for new Growlers will be costly, but not nearly as costly as losing their fleet and entire infrastructure to a terrorist attack. Earthquake & Tsunami Risk Many articles have been written in the past few years, including one that generated a lot of comments in the New Yorker magazine about

the 'big one' coming that would destroy whatever is west of I-5 in Washington State. Experts agree that it's not a matter of if, but when the Pacific Northwest is rocked by an enormous earthquake. The "Cascadia Subduction Zone" is about the size of Maine. It's a geological copycat of the zone that ruptured in Japan. Experts believe 90 percent of the damage and 99 percent of the deaths in Japan were caused by the Tsunami. "The consequences of Cascadia will be more than a city, they will be across a region that could potentially affect 10 million people," said DNR geologist Tim Walsh in a 2012 article by Michelle Esteban. Walsh says... "a big quake will trigger landslides across the region, sheering homes right off their hillside perches. Even the initial quake itself will feel like an eternity, nothing like the 2001 Nisqually quake that rocked Seattle. And that's most dangerous for tall buildings, long bridges and the above-ground pipelines that won't be able to survive the prolonged tremors." Now imagine Deception Pass Bridge, which also carries the water pipeline from the Skagit River to Oak Harbor. The bridge and water pipeline will likely fall or be unsafe after an earthquake and it will likely be months before assistance can be provided. Ault Field at NASWI in Oak Harbor is at Elevation AMSL – 47 ft/14m, and vulnerable to both earthquake and tsunami destruction. A tsunami could carve thru the Strait of Juan De Fuca, flooding everything from the Pacific to Bellingham, including rivers that connect to the ocean. Isn't the risk potential of an earthquake that scientists agree is coming – worth considering when siting all of the Navy's EA18G Growler jets in harms way? The loss could be devastating and extremely costly. If each jet costs about \$84M and only 2 can be made in a month in Missouri – this would seem to qualify as a major security risk, and speaks to the gravity of placing the entire fleet of EA18G Growlers in the path of a predicted major earthquake and tsunami event. In modeling of this event, Ault field will be inundated by water. When minutes and seconds count, will there be time to save these jets from destruction? From an article by Chris Goldfinger, Oregon State University, that speaks to the Cascadian subduction zone and its capacity for generating giant earthquakes: "The Cascadia subduction zone is a crack in the Earth's crust, roughly 60 miles offshore and running 800 miles from northern Vancouver Island to Northern California. This fault is part of the infamous Pacific Ring of Fire, the impact zone where several massive tectonic plates collide. Here, a slab of the Pacific Ocean floor called the Juan de Fuca plate slides eastward and downward, "subducting" underneath the continental plate of North America. When any two plates grind against each and get stuck, enormous stress builds up until the rocks fracture and the fault rips apart in a giant earthquake. Two other segments of the Ring of Fire ruptured this way—Chile in 1960 at magnitude 9.5, the largest quake ever recorded on Earth, and Alaska's horrible Good Friday earthquake of 1964, at 9.2 the strongest jolt ever to hit the continent of North America. Cascadia, however, is classified as the quietest subduction zone in the world. Along the Cascadia segment, geologists could find no evidence of major quakes in "all of recorded history"—the 140 years since white settlers arrived in the Pacific Northwest and began keeping records. For reasons unknown, it appeared to be a special case. The system was thought to be aseismic—essentially quake free and harmless. By the 1970s several competing theories emerged to explain Cascadia's silence. One possibility was that the Juan de Fuca plate had shifted direction, spun slightly by movement of the two larger plates on either side of it. This would reduce the rate of eastward motion underneath North America and thus reduce the buildup of earthquake stress. Another possibility was that the angle of the down-going eastbound plate was too shallow to build up the kind of friction needed to cause major quakes. But the third possibility was downright scary. In this interpretation, the silence along the fault

was merely an ominous pause. It could be that these two great slabs of the Earth's crust were jammed against each other and had been for a very long time—locked together by friction for hundreds of years, far longer than “all of recorded history.” If that were true, they would be building up the kind of stress and strain that only a monster earthquake could relieve.” Evidence amassed suggests that in fact, “Cascadia has generated powerful earthquakes not just once or twice, but over and over again throughout geologic time. A research team led by Chris Goldfinger at Oregon State University (OSU) used core samples from the ocean floor along the fault to establish that there have been at least 41 Cascadia events in the last ten thousand years. Nineteen of those events ripped the fault from end to end, a “full margin rupture.” Goldfinger continues, “It turns out that Cascadia is virtually identical to the offshore faults that devastated Sumatra in 2004 and Japan in 2011—almost the same length, the same width, and with the same tectonic forces at work. Cascadia's fault can and will generate the same kind of earthquake we saw in Japan: magnitude 9 or higher. It will send a train of deadly tsunami waves across the Pacific and crippling shock waves across a far wider geographic area than all the California quakes you've ever heard about. Based on historical averages, the southern end of the fault—from Cape Mendocino, California, to Newport, Oregon—has a large earthquake every 240 years. For the northern end—from mid-Oregon to mid-Vancouver Island—the average “recurrence interval” is 480 years, according to a recent Canadian study. And while the north may have only half as many jolts, they tend to be full-size disasters in which the entire fault breaks from end to end. With a time line of 41 events the science team at OSU has now calculated that the California–Oregon end of Cascadia's fault has a 37 percent chance of producing a major earthquake in the next 50 years. The odds are 10 percent that an even larger quake will strike the upper end, in a full-margin rupture, within 50 years. Given that the last big quake was 312 years ago, one might argue that a very bad day on the Cascadia Subduction Zone is ominously overdue. It appears that three centuries of silence along the fault has been entirely misleading. The monster is only sleeping.” Another article, “A Fault Runs Through It” by Bill Cannon reminds us that the Northwest is big-time earthquake country. Brian Atwater, a U.S. Geological Survey (USGS) scientist and a UW affiliate professor of geological sciences, and USGS scientist Bob Bucknam explain a new fault line. They and colleagues provide a picture of a land-heaving earthquake along the newly discovered fault that may have occurred a thousand years ago. “A strip of land about 10 miles long and four miles wide -- parts of West Seattle and Bainbridge Island -- rose from the Sound higher than 20 feet in some places, sending a giant wave rolling northward. In the same instant, old-growth forest around Lake Washington slid to a watery resting place. They estimate the fault is within a few miles of the surface and was active as recently as 1,000 to 1,100 years ago. It follows the Bainbridge Island ferry route east under Puget Sound and the route of Interstate 90 toward, and possibly beyond, the Cascade Mountains. The discovery was an alarm bell for engineers and emergency planners. This was a threat they had no idea existed: shallow earthquakes under a densely populated region. At magnitude 7 or greater, the tremors could shake the ground more than twice as fiercely as two mid-20th century earthquakes that rocked Washington. “The big problem with this new hazard is that it occurs at ground zero, where 2.5 million people live,” says Craig Weaver, who coordinates the USGS earthquake hazards program in the Northwest. “This reminds us that the Northwest is big-time earthquake country.” If, in fact, the Navy maintains this single siting decision is reviewed annually under the Chief of Naval Operations' Strategic Laydown and Dispersal plan, this would be an ideal time to make that review --- before

the final EIS is written. As citizens, we see many reasons for review of the one-site DoD policy for stationing Growlers on Whidbey Island and enough risks associated with that placement to warrant serious investigation of the above potentials and critical risks.

Coupeville, WA 98239

COMMENTS: Failing to Address the 40 Additional Growlers at NASWI in the Draft EIS. The number of jets really coming to NASWI is more like 160 - not 118 and their impacts have not been studied or even revealed in the DEIS The Draft Environmental Impact Statement (EIS) is deficient in not addressing 40 additional Growlers that are in the process of delivery beyond the 35 or 36 identified in the Proposed Action. The Draft EIS states that The Proposed Action would: • continue and expand existing Growler operations at the Naval Air Station Whidbey Island complex, which includes field carrier landing practice by Growler aircraft that occurs at Ault Field and Outlying Landing Field Coupeville • increase electronic attack capabilities by adding 35 or 36 aircraft to support an expanded U.S. Department of Defense mission for identifying, tracking, and targeting in a complex electronic warfare environment The Environmental Impact Statement evaluates the potential environmental impacts associated with the following resource areas: airspace, noise, safety, ... , as well as the cumulative impacts of the Proposed Action and other local projects. [emphasis added] The Draft also states that the total number of Growler Aircraft at Ault Field will be 117 or 118. A Department of Defense (DoD) report from 2016 states The procurement profile of the FY 2017 PB adds 7 EA-18G aircraft in FY 2016. The result of this addition will be a FY 2016 FRP contract for Lot 40 EA-18G aircraft, which increases the total Program of Record (PoR) from 150 to 157. ... These aircraft are in the process of delivery Initial aircrew training will be conducted at NAS Whidbey Island, WA. ... Limited I-Level for some EA-18G and F/A-18E/F common maintenance tasks has been established at Whidbey Island, WA. Airborne Electronic Attack (AEA) I-Level maintenance will be stood up at Whidbey Island and aboard the CVWs commencing FY18. It is clear from the DoD report that 157 Growlers will be based at NASWI at times, not 117 or 118 as described in the Draft EIS. The additional 40 Growlers are part of the same mission and are "in the process of delivery." The Draft does not acknowledge the additional 40 Growlers, describe what activity they will undertake or analyze how that activity will impact the affected environment. For example, will maintenance engine run-ups be conducted on the additional Growlers? The Draft EIS has not fulfilled its obligation to "evaluate[s] the potential environmental impacts ... as well as the cumulative impacts of the Proposed Action and other local projects." Council on Environmental Quality (CEQ) Regulation 1502.9 states (c) Agencies: (1) Shall prepare supplements to either draft or final environmental impact statements if: (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. Comments from Karen Sullivan, West Coast Action Alliance in response to Mike Schanche, at Congressman Larsen office, who told a source today (February 8th, 2017) that the planes in excess of those addressed in the DEIS will be parked for use if another plane breaks down or possibly be assigned elsewhere. He said they will not have active planes above the stated number. "The Navy has, over the past few years, taken great satisfaction in publicly stating that I and others whose facts don't precisely match theirs are "confused" or "misled." I had merely reported what Navy reps actually said and what was in the acquisition report, more than a month ago. The number 160 was confirmed multiple times. In any other setting but the Navy's, this would

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.c. Segmentation and Connected Actions
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.i. Proposed Action
- 2.n. Alternatives Considered But Eliminated

be considered as "the truth." NASWI is, according to the Navy, the consolidated home of the Growler fleet and is where they all train from. Yet now we are told they can train almost anywhere? Perhaps an ordinary citizen trying to do the math by using addition and subtraction does indeed become confused, because what Welding gave you is not in any EIS and looks more like a shell game. I suppose that if they can call someone like me, who's read and studied every one of their damned NEPA documents, "confused," then as a writer I'd say that reflects right back on their ability to be transparent and clear about their goals. But transparency is not how they roll. For example, none of the dozens of NEPA documents that evaluate impacts from pile-driving have ever added up the total number of pilings to be driven over just a few years in Puget Sound and the Strait of Juan de Fuca, at nearly 5,300, but a Navy spreadsheet does. And that's the point. Splitting impacts from 160 Growlers into probably 6 separate NEPA processes is a deliberately designed tactic to confuse the public and avoid cumulative impacts analyses. Making us feel like idiots because we can't get every detail right evidently gives someone in the Navy a great deal of satisfaction. The simple truth, as you and everyone else knows who's enduring the Navy's cheating as it destroys anyone and anything that gets in its way, is this: we are not going away. We will not stand by and let them ruin lives and property. The harder they push, the harder we do, too. This is not the Navy that I have known and respected all my life. This is a runaway monster that shows contempt for Americans who dare to ask questions about its insatiable appetite. If earning the forever enmity of a growing number of Americans as well as others around the world is considered an acceptable cost of doing their business, then they're doing a fine job of it." Additionally, In responding to an email on the same subject of 160 Growlers at NASWI on February 13th 2017 to Michael Monson, Mike Welding, from NASWI notes that "Other carrier-based aircraft will be assigned overseas in Japan, while some test aircraft will be assigned to NAS Patuxent River, in Maryland and the Naval Air Weapons Station at China Lake, CA. There will also be some training aircraft assigned to NAS Fallon, NV, as part of the Weapons School located there." Mr. Welding mentions at least 4 other facilities in his comments about where the Growlers will be training – some of these have been recommended by citizens as places for the Navy to consider as alternatives to training at OLF and over Puget Sound. COER has recommended both China Lake and NAS Fallon be considered as viable alternatives that should be considered by the DEIS instead of basing all new Growlers at NASWI. Mr. Welding affirms that they train there and seems to be contradicting the Navy's DEIS that arbitrarily says no alternatives further away than 50 miles from Oak Harbor, WA can be considered. COER continues to challenge the Navy on the TOTAL NUMBER of jets first submitted to the public in the Navy's 2005EA. That EA addressed the transition from Prowlers to Growlers, which were to be fewer in number and quieter than the Prowlers. The EA said 52 Growlers would replace 72 Prowlers. Clearly the Navy has 160 jets ordered but no honest plans to study their impact. Not on 72, 82, 118, 157, or 160. From the 2005 EA: "Replacement of the EA-6B with the EA-18G will begin in 2008 and be completed in 2013. The replacement process will result in an overall decrease in the number of Electronic Attack (VAQ) aircraft and associated personnel stationed at NAS Whidbey Island. A total of 57 EA-18G aircraft will replace the existing 72 EA-6B aircraft, resulting in a decrease of 15 VAQ aircraft stationed at NAS Whidbey Island and a decrease of approximately 1,106 personnel associated with the AEA aircraft squadrons (Tables 1-1 and 1-2)." The first Growler did not arrive on Whidbey Island until 2008 and it was not until 2013 that the impacts of the new jet were felt by the under-flight communities. It was clear that neither of the

submitted facts from the Navy were true: the jet was not quieter and there were more of them. The Navy has asserted that the community did not challenge the Navy within the 6 years – but COER has a FOIA document from the Navy that shows the first Growler did not arrive on Whidbey Island in 2008. COER took the Navy to court in early 2013 to press them for an EIS on the transition from Prowler to Growler addressing cumulative impacts of all operations at NASWI, and particularly of the Growler aircraft. This was well within the 6 years. The Navy conceded and agreed to prepare an EIS in 2013 – still within the 6 years. The Navy never raised a statute of limitations defense to our filing of the complaint and waived that defense. The Navy ignored this threshold and moved onto its 2012EA and gave themselves permission to add yet more Growlers. It was only thereafter that the Navy limited the scope of COER's demanded EIS to the addition of 36 more Growlers and are for all practical purposes omitting impacts of the first Growlers and the 82 that are now at NASWI. The Navy did this in their scoping of the EIS, AFTER they agreed to prepare an EIS. COER has always challenged that narrowing of the scope as counter to the intentions of a NEPA Environmental Impact Statement. So from 2008 to 2016, the Navy moved approximately 82 Growlers to Whidbey Island and no impacts of that huge transition have been studied. We continue to challenge the Navy's misleading information about the total number of jets and therefore their cumulative total impact. The Current DEIS now asserts that there will be 118 EA18G Growlers sited at NASWI. According to the Congressional records this number is also not valid. The real number is 160. The impacts of the transition from Prowler to Growler have never been sufficiently studied while the Navy continues to bootstrap all of its electronic warfare jets to Whidbey Island. The real number are not addressed in the DEIS. A chart from Congressman Larsen in 2014 in response to "where are all these Growlers going" shows the 2014 allocation of 135 jets. There were 15 more planes purchased and 18 more scheduled for production since his response was written. Chief of Naval operations Greenert is also quoted in Dec of 2015 in response to: Where are they going? He states in that article that the Navy had planned purchases of 153 Growlers. Only the DEIS has listed fewer than 150 Growlers to be located at NASWI. It appears that the Navy has a history of ordering jets, then as they are being delivered - do the EIS "paperwork" - not really a process, more of a required activity. It also appears that everyone but the public knew/knows that 160 Growlers will be sited at NASWI. Isn't that COUNTER to the intent of the NEPA process? The Selected Acquisition Report for Growlers – 2015: Attached is the official congressional-approved Program of Record Selected Acquisition Report (SAR). It shows a total of 150 Growlers approved by congress (135 up through 2012, 15 more since) Program Acquisition Unit cost - total costs divided by units planned: \$81.2M per Growler Total program acquisition cost: \$14.395 Bn Expended to date (FY2015): \$10.132 Bn Deliveries: Planned to date (FY2015): 113 Actual: 116 Total planned: 150 Delivery rate: 2/month Executive Summary FROM EA-18G Growler Aircraft (EA-18G) As of FY 2017 President's Budget Defense Acquisition Management Information Retrieval (DAMIR)

- The procurement profile of the FY 2017 PB adds 7 EA-18G aircraft in FY 2016. The result of this addition will be a FY 2016 FRP contract for Lot 40 EA-18G aircraft, which increases the total Program of Record (PoR) from 150 to 157. As part of the A-12 settlement, the EA-18G Program received three EA-18G airframes, Contractor Furnished Equipment (CFE), and Airborne Electronic Attack (AEA) kits from the Boeing Company. The value to the program was \$198M. These aircraft are in the process of delivery and are annotated as Lot 37A aircraft. There was not a Total Obligation Authority (TOA) increase to the program. The three Growler aircraft have been added to FY 2013 and will

be included in the PoR. FY 2016 \$198 Million A-12 In-kind Settlement does not reflect TOA. No additional resources were provided in FY 2016 to the Department of the Navy. The Assistant Secretary of the Navy, Research, Development, and Acquisition (ASN (RD&A)) acknowledged and concurred with the FY 2015 Program Deviation Report (PDR) on June 2, 2015. ASN(RD&A) approved the APB on October 15, 2015. The additional 7 EA-18G aircraft and related support in FY 2016 caused Procurement and O&S cost breaches. Additionally, an RDT&E breach occurred as a result of increased funding for Complex Emitter, Tactical Targeting Network Technology, and Distributed Targeting Processor-Networked efforts. As a result, a PDR and updated APB will be submitted. A contract modification to the Lot 38 FRP contract for the Lot 39 FRP procurement awarded on October 26, 2015. In summary: Q: How many Growlers is the Navy now planning? A: 160 Q: How many Growlers were planned to replace the Prowlers? A: 57 Q: How many Growlers are discussed in the 2017 EIS? A: 118 Reference: http://www.dod.mil/pubs/foi/Reading_Room/Selected_Acquisition_Reports/16-F-0402_DOC_51_EA-18G_DEC_2015_SAR.pdf The DEIS is inaccurately or insufficiently assessing the impact of 160 Growlers, not 118 Growlers. This is so misleading, one wonders if the operation projection totals also have any relationship to actual plans. This is not information that the public can be expected to glean from reading the Navy's DEIS, which is long on words and short on actual detailed information. RECOMMENDATION: Supplement the EIS to address the 40 additional Growlers to be stationed at NASWI and allow further opportunity for public comment before the Final EIS is prepared.

Coupeville, WA 98239

EA-18G Growler EIS Project Manager Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard Norfolk, VA 23508 Attn: Code EV21/SS First Name: [REDACTED]
 Last Name: [REDACTED] Agency/Organization: COER City/Municipality: Coupeville
 State/Province: Washington Zip/Postal Code: 98239 Comments: Growler
 Electromagnetic Warfare Training & Impacts at OLF and in Washington State NOT
 Covered in DEIS The Navy has never been transparent about the use of OLF for
 electromagnetic warfare training and little mention has ever been made of the fixed
 emitter at OLF. COER had to FOIA documents from the Navy to find out about its usage
 but the Navy still provided little more than charts. The placement, proposed placement,
 and usage of fixed and mobile emitters at various locations in Washington State (and
 elsewhere) has been treated like at least 3 different projects and kept primarily as EA's
 whenever possible. Yet it is clear that the use of this warfare training equipment by
 Growler pilots is all connected and has impacts on the civilian communities that they take
 place in and over. It is all Growler training and part of the Navy's efforts to consolidate
 and expand Growler training at NASWI. The new fixed tower emitter in Everett is
 triangulating electromagnetic emission toward the Olympic Peninsula, where they are
 proposing the new use of permitted mobile emitters on state and national forest roads.
 Electromagnetic emitters (mobile or fixed) are part of scheduled training hours for
 Growler pilots and do have singular and cumulative impacts on the region and Whidbey
 Island. These impacts should be discussed in this DEIS and especially the fixed emitter
 at OLF should be discussed. The full impacts of the OLF emitter's usage and its impacts
 on the environment, wildlife, people and the pilots have not been analyzed nor revealed
 to the public since its placement in the late 1990's. Science, safety and regulations for
 electromagnetic emissions have improved and progressed since the 1990's. Further, the
 Navy never adequately substantiated its need for non Defense Department lands, as was
 required by the 1988 Master Agreement; instead of proving that no DoD lands were
 available or suitable, it said using the Olympic Peninsula's public lands was for the
 purpose of saving \$4 to \$5 million dollars of jet fuel per year. Saving fuel is a good goal,
 but this reason does not prove that DoD lands were either unavailable or unsuitable,
 which was the primary requirement of the Master Agreement. How does the Navy justify
 training flights doing electronic warfare on non-DoD public lands for which it never
 properly justified to the public its reasons for using? On page 5-19 of the DEIS, electronic
 warfare is listed as a "relevant activity," and in the Abstract it states the proposed action
 would: "...Increase electronic attack capabilities by adding 35 or 36 aircraft to support an
 expanded U.S. Department of Defense mission for identifying, tracking, and targeting in a
 complex electronic warfare environment." So, with electronic attack being relevant to the
 DEIS, it can be assumed that a discussion on impacts from training with this suite of
 electronic attack weapons should be included. The 200-page EA Warfare Training Range
 document covers a huge area of airspace, but only 875 acres of land were specifically
 named, between Everett and Mt. Baker. The lone ground-based emitter mentioned was
 located in Coupeville, and the number of annual training events for Growler jets proposed
 back in 2009 was 275. That's what the biological opinion evaluated. Not three mobile
 emitters and one fixed tower in 14 brand-new places, not 36 low-altitude Growler jets in
 areas previously not evaluated, not 2,900 Growler training events in the Olympic National

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 1.d. Electronic Warfare
- 2.c. Compliance with the National Environmental Policy Act

Forest and another 2,100 elsewhere, for eight to 16 hours per day, 260 days per year. The stated intent of the 2014 Electronic Warfare EA was to “turn out fully trained, combat-ready electronic attack crews.” However, it also focused on the ground-based emitters and glossed over the airborne components of the training. Nowhere do any Navy NEPA documents from the last 7 years discuss the risk of exposure to chronic downward-directed radiation from weaponized forms of directed energy aboard these jets, to civilians, wildlife and habitat. The only discussion was a brief mention in the 2014 EA, in reference to radio transmitters on the mobile emitter trucks and the stationary transmitter at Pacific Beach in Everett. The Navy referenced a paper by Focke et al, and concluded that links from radiation exposure to leukemia were speculative, when in fact, that same paper stated unequivocally that there are direct links between radiation exposure and childhood leukemia. Why is any mention or discussion of risks from exposure to electromagnetic radiation from Navy jets completely missing from all discussions of potential impacts? The fixed emitter at OLF Coupeville, the fixed emitter tower being built in Everett (Pacific Beach) on Navy property, the mobile emitter trucks on the Olympic Peninsula are all part of the same proposed expansion of the EA18G Growler trainings at NASWI and at OLF with the addition of 35/36 new Growlers. All of these electromagnetic emitters are here ONLY because of the EA18G Growlers sited at NASWI. These trainings are connected and must be assessed as a cumulative impact of electromagnetic impacts on not only Central Whidbey but also the lands and sea BETWEEN the emitters from Everett to the Olympic Peninsula. An editorial published by the Everett Herald, March 19, 2015, challenged the Navy’s attempts to allay civilian concerns about the impacts of electromagnetic emitters and Growler trainings with this equipment: In addition to the annoyance and noise from increased jet flights over OLF and Ebey’s Landing National Historical Reserve, the Olympic National Park and Olympic National Forest and the Colville and Okanogan–Wenatchee national forests, there is also a lack of clarity from the Navy about the potential for harm from the electromagnetic signals used in the training. “In its own information about the proposal (for moving the Growler training from Idaho to Washington), the Navy attempts to minimize the risk from the signals, comparing them to the type of emissions from cellphones and Bluetooth devices. The emitters, when in use, would be 14 feet off the ground, directing the signals into the sky. The trucks themselves would be cordoned off in a 100-foot radius with signs reading, “Warning/Radio Frequency Hazard; Personnel Hazard Exists In This Area; Keep Moving.” But accidental direction of the electronic signals could be a problem for any person, animal or bird in their path. A Navy spokesman told the Peninsula Daily News in October that ‘if someone is in the exclusion area for more than 15 minutes, that’s a ballpark estimate for when there would be some concern for potential to injure, to receive burns.’ Clearly, this involves signals much stronger than your cellphone or Bluetooth device. Each truck’s two-person crew would be on hand to tell people not to loiter, but that puts a lot of expectation on how attentive the crews would be.”..... “The need for the Navy to train its fliers for their missions isn’t being challenged, but the potential for harm to people and wildlife calls for conditions and an environment that offer better control and safety than are available in forest lands open to the public. One suggestion for a more suitable site: How about the 327,000 secured acres of Joint Base Lewis McChord’s Yakima Training Center OLF Stationary Electromagnetic Emitter A fixed electromagnetic emitter is currently operational and located at OLFC for EA18-G Growlers practice training. The emitter at OLFC was installed in 1998 and is used on average 600 hours per year per FOIA documents obtained by COER. The DEIS is silent on it’s

environmental impacts. Document photos from a FOIA from NASWI on Electromagnetic Emitter at OLF – The Navy did not perform any studies to prove that there was no significant impact Installation & Operation of Fixed Emitter at Naval Station Everett, Pacific Beach, WA. To facilitate training of Growlers at NASWI, the Navy has proposed construction of a new permanent tower south of Building 104 (Figure above) in Everett, which is required to support a fixed emitter (MRES) at NS Everett Annex Pacific Beach. The 40-foot tower and fixed emitter would have a total height of about 66 ft. above ground level on a Navy-operated, controlled, and owned site, to which the public does not have access. The MRES is capable of generating an electromagnetic wave at frequencies ranging from 2 to 18 gigahertz (GHz). It can emit up to 64 simultaneous signals and can transmit in pulses or a continuous wave. The tower is being built tall enough so it can be pointed toward the Olympic Peninsula with little obstruction. This new tower and fixed emitter are a result of the Navy's one-site Growler stationing and training at NASWI. This new stationary emitter along with the mobile emitters will impact civilians in the greater Everett region, including the southern part of Whidbey Island. We really don't know how many people will be impacted because of lack of information from the Navy, research or any scientific studies of how often and when these devices will be used, or what their range is. Additionally, counties of Washington State to be directly impacted by expanded Growler electromagnetic warfare training, including the proposed addition of 35/36 Growlers discussed in the DEIS (and additional Growlers not included in the DEIS but ordered by the DOD): in the Okanogan and Colville National Forests beneath the assigned airspace of the Olympic Peninsula and National forest, Okanogan and Roosevelt MOAs. These areas include the following 9 Counties: Island, Clallam, Ferry, Grays Harbor, Jefferson, Okanogan, San Juan, Skagit, and Stevens. The Navy does not include these in the overall/cumulative impacts in its DEIS. Health Impacts are a Public Concern: Dr. Martin Pall, a professor emeritus of biochemistry and medical sciences with Washington State University, has written several peer-reviewed papers on the subject of how electromagnetic radiation of various levels impacts human beings, as well as international lectures on the subject. Pall refutes the claims by the Navy that "no significant impacts" will occur to wildlife or humans from their electromagnetic war games. He has provided reams of evidence, including his own scientific reports that document, in detail, the extremely dangerous impacts of even very low levels of the microwave and electromagnetic radiation that the Navy would be emitting during their war games. Pall's paper, titled "Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects," outlines the impact of electromagnetic radiation on biological organisms, and was given the honor of being posted on the "Global Medical Discovery" site as one of the top medical papers of 2013. According to Pall, a NASA study, and more than 1,000 other scientific reports and studies, the health impacts of even the Navy's lowest levels of electromagnetic radiation emissions are shocking. The NASA study lists dozens of human health impacts, and one of the tables in the report, titled, "Subjective effects on persons working in radio frequency electromagnetic fields," lists symptoms that include hypotension, exhausting influence on the central nervous system, decrease in sensitivity to smell, periodic or extreme headaches, extreme irritability, increased fatigability, and intensification of the activity of the thyroid gland. A 2013 paper published in the journal Reviews on Environmental Health, titled "Radiation from wireless technology impacts the blood, the heart and the autonomic nervous system," lists a series of 14 different pleas from multiple scientists who state the need for much more vigorous action on the health effects from

microwave EMFs. There is an abundance of peer-reviewed, published scientific studies about the harmful effects to humans of electromagnetic radiation. Dahr Jamial, an investigative reporter for Truthout, has published the following publications as listed in Appendix D as evidence of potential harm from these emissions. Dahr Jamail notes that a quick search on Google Scholar for "Electromagnetic fields risk to humans" produces over 63,000 results, most of which are published scientific studies that chronicle the deleterious impact of electromagnetic fields to the human organism. One report titled "Biological effects from electromagnetic field exposure and public exposure standards," published in the journal *Biomedicine and Pharmacotherapy* in 2008, concluded: "Health endpoints reported to be associated with ELF and/or RF include childhood leukemia, brain tumors, genotoxic effects, neurological effects and neurodegenerative diseases, immune system deregulation, allergic and inflammatory responses, breast cancer, miscarriage and some cardiovascular effects." The BioInitiative Report concluded that a reasonable suspicion of risk exists based on clear evidence of bioeffects at environmentally relevant levels, which, with prolonged exposures may reasonably be presumed to result in health impacts. Mike Welding, the Naval Air Station at Whidbey Island spokesman, recently admitted to Peninsula Daily news reporters that any antennas emitting electromagnetic energy produce radiation. "As a general answer, if someone is in the exclusion area for more than 15 minutes, that's a ballpark estimate for when there would be some concern for potential to injure, to receive burns," he said. He has made no comment about the electromagnetic emitter located at OLF. The US Air Force published the report, "Radiofrequency/Microwave Radiation Biological Effects and Safety Standards: A Review." Page 18 of the report states: "Nonthermal disruptions have been observed to occur at power densities that are much lower than are necessary to induce thermal effects. Soviet researchers have attributed alterations in the central nervous system and the cardiovascular system to the non-thermal effect of low level RF/MW radiation exposure." The report concludes, "Experimental evidence has shown that exposure to low intensity radiation can have a profound effect on biological processes." At the time that report was written, the standard for exposure was 50,000 mW/m². Today, the maximum exposure limit is 10,000 mW/m², yet even that level is more than 1 million times the allowable exposure limits published in the 2012 BioInitiative Report. Navy Admits Harmful Biological Effects: On October 4, 1971, the Naval Medical Research Institute published a research report written by Dr. Zorach Glaser. The title of the report is "Bibliography of Reported Biological Phenomena ('Effects') and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation." Given that the Navy continues to claim that their EMR warfare training exercises will have "no significant impact" on humans, it is interesting to note that their own research paper's abstract states: More than 2,000 references on the biological responses to [microwave and] radio frequency and microwave radiation, published up to June 1971, are included in the bibliography. (Three supplementary listings bring the number of citation to more than 2,300.) Particular attention has been paid to the effects on man of non-ionizing radiation at these frequencies. The Navy's paper lists well over 100 negative biological effects caused by microwave and radio frequency radiations, of which here is a partial list from their report: corneal damage, tubular degeneration of testicles, brain heating, alteration of the diameter of blood vessels, liver enlargement, altered sex ratio of births, decreased fertility, sterility, altered fetal development, decreased lactation in nursing mothers, altered penal function, death, cranial nerve disorders, seizures, convulsions, depression, insomnia, hand tremors, chest pain, thrombosis, alteration in the rate of cellular division,

anorexia, constipation, altered adrenal cortex activity, chromosome aberrations, tumors, altered orientation of animals, birds and fish, loss of hair, and sparking between dental fillings. Dr. Martin Pall, WSU emeritus faculty, concludes, "What the Navy is doing we have no idea because they don't tell us . . . but from what little they have told us, they are using a lot of pulse fields in wavelengths that are damaging to us, to biological organisms. They give us not one iota of evidence of what biological effects are produced by those fields, and don't even tell us what fields they are using. You only find empty statements of 'don't worry about these things.'" COER notes the abundance of peer-reviewed, published scientific studies about the harmful effects to humans of electromagnetic radiation and submits the following as evidence of potential harm from these emissions as researched and reported by Dahr Jamail and investigative reporter for Truthout. Dahr Jamail reports that a quick search on Google Scholar for "Electromagnetic fields risk to humans" produces over 63,000 results, most of which are published scientific studies that chronicle the deleterious impact of electromagnetic fields to the human organism. Some of Jamail's selected sites are: "Carcinogenicity of radiofrequency," "The sensitivity of children to electromagnetic fields," "Exposure to extremely low frequency electromagnetic fields and the risk of malignant diseases - an evaluation of epidemiological and experimental findings," "Extremely low frequency electromagnetic fields as effectors of cellular responses in vitro: possible immune cell activation," and "Exposure to electromagnetic fields and the risk of childhood leukemia," to name just a few. One study selected, titled "Leukemia and Occupational Exposure to Electromagnetic Fields: Review of Epidemiologic Surveys," states in its abstract: "Results for total leukemia show a modest excess risk for men in exposed occupations, with an enhanced risk elevation for acute leukemia and especially acute myelogenous leukemia." Another report titled "Biological effects from electromagnetic field exposure and public exposure standards," published in the journal *Biomedicine and Pharmacotherapy* in 2008, concluded: Health endpoints reported to be associated with ELF and/or RF include childhood leukemia, brain tumors, genotoxic effects, neurological effects and neurodegenerative diseases, immune system deregulation, allergic and inflammatory responses, breast cancer, miscarriage and some cardiovascular effects. The BioInitiative Report concluded that a reasonable suspicion of risk exists based on clear evidence of bioeffects at environmentally relevant levels, which, with prolonged exposures may reasonably be presumed to result in health impacts. Mike Welding, the Naval Air Station at Whidbey Island spokesman, recently admitted to Peninsula Daily news reporters that any antennas emitting electromagnetic energy produce radiation. "As a general answer, if someone is in the exclusion area for more than 15 minutes, that's a ballpark estimate for when there would be some concern for potential to injure, to receive burns," he said. In 1994, the US Air Force published the report, "Radiofrequency/Microwave Radiation Biological Effects and Safety Standards: A Review." Page 18 of the report states: "Nonthermal disruptions have been observed to occur at power densities that are much lower than are necessary to induce thermal effects. Soviet researchers have attributed alterations in the central nervous system and the cardiovascular system to the nonthermal effect of low level RF/MW radiation exposure." The report concludes, "Experimental evidence has shown that exposure to low intensity radiation can have a profound effect on biological processes." At the time that report was written, the standard for exposure was 50,000 milliwatts per square meter. Today, the maximum exposure limit is 10,000 milliwatts per square meter, yet even that level is more than 1 million times higher than the allowable exposure limits published in the 2012 BioInitiative Report.

Electromagnetic Radiation Impacts Mammals: This de-classified Army report on RF weapons outlines several ways that RF radiation can harm mammals. One is thermal: burning and hyperthermia (heat stroke) inducing disorientation. "In prolonged hyperthermia, with temperatures over 40° C to 41° C, the brain suffers severe damage that usually leads to death." The size of the animal and the wavelength of the radiofrequency are most important. In the Rhesus monkey a frequency of 0.225 GHz at 10 W/kg of body weight caused the body temperature to increase to 42° C within 10-15 minutes. A lower dose of 5 W/kg caused the temperature to increase to 41.5° C in less than two hours. The convulsive threshold for rats is estimated to lie between 22-35 W/gm for one second. A second method of incapacitating mammals with RF radiation is called "microwave hearing." Microwave hearing is the sensation of buzzing, ticking, hissing or knocking sounds that originate within the head from pulsed microwaves. There is no sound present. The threshold energy of the microwave auditory response in humans is a function of pulse width and frequency but also varies from individual to individual. For a frequency of 2.45 GHz, the incident energy density per pulse must equal or exceed 20 mJ/kg body weight with pulse widths between 0.5-32 microseconds. Not enough information is given about the mobile emitters to make a determination of this effect. The threshold for animals and birds is not known. The onset is immediate but only lasts as long as the exposure. In addition to disrupting hearing, there might also be an adverse psychological effect. A third method for incapacitating mammals with RF radiation is disruption of neural control. The neurons are electrically stimulated in a synchronous manner. Electronic stimulation of neural synchrony can be achieved. At just the right frequency, pulse repetition rate and energy, seizure can result. "The condition thought to be necessary to produce [this effect is] an overall [pulse] repetition rate of 15 Hz. Such a field may be developed using a radar-like, high-peak power, pulsed source...The effective range could be hundreds of meters." This would vary from individual to individual.

Conclusions: This DEIS insufficiently examines the environmental impacts of electromagnetic warfare training by EA19G Growlers that have changed and increased from the Prowler aircraft, As the Navy increases the number of Growlers at NASWI, it is logical to conclude that electromagnetic radiation impacts will also increase. The public has seen no information from the Navy on the health and safety consequences of these expansions. The public has a right to know. To determine whether a single project is improperly segmented into multiple parts, courts have applied a four-part test that asks whether "the proposed segment (1) has logical termini; (2) has substantial independent utility; (3) does not foreclose the opportunity to consider alternatives; and (4) does not irretrievably commit federal funds for closely related projects." *Save Barton Creek*, 950 F.2d at 1140 (citing *Piedmont Heights*, 637 F.2d at 439; applied in *O'Reilly v. US Army Corp of Eng*, 447 F3d 225(5th Cir. 2007)). (1) This precedent should be applied to the individual and cumulative electromagnetic emitter(s) impacts associated with the EA18G Growler trainings from emitters and aircraft. (2) The Navy has not provided "any evidence" to support their claims that electromagnetic frequencies (EMF) do not impact wildlife and humans deleteriously. Should EMF be allowed without sufficient research? (2) Growler expansion also brings increased exposure to electromagnetic radiation. (3) Science shows cause for public concern regarding electromagnetic radiation. Emitters, whether stationary or mobile, should be challenged until proof of safety is provided through analysis. (4) Continued use of the OLFCE fixed emitter should be challenged on health and safety concerns since the Navy's only and last public environmental assessment was provided in 1998 with a Navy decision of 'no significant impact' – almost

20 years ago. Science shows cause for public concern regarding electromagnetic radiation use by the Growlers and the Growler trainings. Finally, the Navy Draft EIS is deficient in numerous areas as described in the comments above and by others, and is inadequate to support a decision. Council on Environmental Quality (CEQ) Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." <https://www.law.cornell.edu/cfr/text/40/part-1502> A hard copy will also be submitted.

coupeville, WA 98239

Coastal Zone Landslides & Cliff Stability: Growler Impact Not Included in DEIS
 Landslides occur every year in Washington State. Our climate, topography, and geology create a perfect setting for landslides. Landsliding affects more than 600 miles of Puget Sound's shoreline, reflecting the pervasiveness of high, steep coastal bluffs and the widespread occurrence of geologic conditions that can give rise to slope failures when groundwater levels rise rapidly. The risks from landslides, and the level of associated damages, are exacerbated by the intense development pressure along the shoreline and the relative value of property located in or adjacent to steep, unstable slopes. Landslides along Puget Sound's steep coastal hill slopes has been described in numerous publications, going back as far as Kimball [1897], but more recently in the Coastal Atlas [Washington Department of Ecology, 1977-1980] and Thorsen [1987, 1989]. Mapping of landslides and slope stability has been carried out at the county level by many geologists, best summarized in Manson [1988, 1998]. Tubbs [1974, 1975] described landsliding in the Seattle area in work that has formed the foundation for most subsequent interpretations of Puget Lowland landslides. Following the 1996-1997 landsliding several additional studies were carried out, including: U.S. Army Corps of Engineers [1997], Baum and others [1997], Gerstel and others [1997] and Palmer [1998].

Geology of Landslides The occurrence and distribution of landslides in the Puget Sound region is directly related to the geological and geomorphological characteristics of the area. The pervasive nature of landsliding along coastal slopes reflects a combination of steep slopes formed by centuries of erosion by waves and a widespread geological setting that places permeable glacial outwash sediments in contact with underlying impermeable fine-grained clays and silts, creating a zone of elevated pore water pressures and potential instability. Puget Lowland contains considerable geologic variation, from extensive bedrock terrain to large Holocene river deltas. Most of the shoreline, however, is developed in late Pleistocene glacial and interglacial sedimentary deposits. Much of the Puget basin is blanketed with sediments deposited in association with the last advance of glaciers into the basin. At the peak of the Vashon glaciation, the Puget Lobe of the Cordilleran ice sheet extended south of Olympia and completely filled the Puget Lowland. The resulting geological units, and in particular, the relationship between the units and their resulting hydrologic behavior, directly influences the character of landsliding on the Sound.

Landslides: As landslides involve movement of mass of rock, mud's etc., down a slope, factors that promote such movement of mass provide the causes for landslides. Such causes can arise from a number of happenings. For example; (a) Increase in the mass of weak rocks, clay and other debris likely to slide; (b) Loosing of breaking of rocks and soil by wetting due to rain, weathering, erosion, deforestation, earthquake, and tremors and similar other events; (c) Increase in the tilt or slope due to seismic disturbances or construction activities, mining, quarrying etc. It is evident from the above that the causes for landslides are both natural and man-made. Tremors and similar events could logically include the low-frequency vibrational noise emitted by Growlers at low-level flight altitudes during their flight landing carrier practices (FCLP's). This noise could act as the trigger for a landslide, especially if the soil was already heavily loaded with water. While the above-mentioned causes are basically responsible for landslides, it is quite often that a triggering mechanism starts the

1.a. Thank You

16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)

8.a. Cultural Resources Area of Potential Effect

8.c. Noise and Vibration Impacts to Cultural Resources

8.e. Outlying Landing Field Coupeville and Coupeville History

8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

disaster. Conditions favorable for a landslide continue to build up and a final small cause triggers a landslide. This small cause or trigger can occur in many ways. It could be the seepage of water inside rock crevices; vibration from blasting, earthquake, or even thunder; erosion from water streams; deforestation; weakening due to digging and quarrying. It could even be the continued loading due to snow accumulation or collection of large amount of rainwater. The Ledgewood–Bonair Landslide (LB Landslide) on Whidbey Island, Island County, WA. is a small portion of a much larger landslide complex. The larger landslide, which is approximately 1.5 miles long, is prehistoric and may date back as much as 11,000 years. The LB Landslide is likely a reactivation of a small portion of the prehistoric complex. The recent Whidbey Island Landslide in Ledgewood on 3/27/2013. This slide happened in winter, as do most landslides in Western Washington. This slide also occurred during increased Navy Growler flights over Central Whidbey during 2013. Growlers had been flying the night of this slide. Deep-seated landslides are often slow moving, but can cover large areas and devastate infrastructure and housing developments. DNR geologists believe the Whidbey Island Coupeville landslide to be a deep-seated landslide. Whidbey Island has many unstable cliffs already well identified and Growler jets regularly fly over these areas of instability. Precaution, especially after long periods of rain, should be observed by the Navy by creating protocols for not flying after long periods of rain. Investigations should be conducted by the Navy for the full impact of the Growler noise model as a trigger for landslide events, which need only a moment to vibrate soil molecules apart from each other and cause a slide. There is no evidence that the Navy has conducted any of this kind of environmental scientific investigation on cliff stability/instability on Whidbey Island. This past year in 2016 a small slide occurred on Kineth Point destroying the use of approximately 30 - 50 cubic yards of glacial till material. The point to be taken here is that the coastal bluffs of Whidbey Island are comparatively fragile and in danger of being damaged or destroyed, and should be protected from abuse by any person or entity, including the Navy. Effectively, all of the coastline of Whidbey Island is owned by the Federal, State or Local Government, or by private parties. In its latest DEIS, the Navy recognizes that fact and discusses it in the context of structures at NAS Whidbey, Indian Burial Grounds, and other historic sites, but does not discuss or even mention the Coast Line and high bluffs that in essence surround much of Whidbey Island. From the Navy's own website: "The EA-18G has more low frequency content than the Prowler it is replacing. Close to the airfield, there might be a slight increase in potential for noise-induced vibration in areas where the peak sound levels exceed 110 dB." As mentioned above, based on a Navy study (Wyle Aircraft Noise Study, October 2012), the Growler produces more low-frequency noise than the Prowler. Low-frequency noise has a greater impact on areas because it travels further than high frequency noise. This low-frequency noise (LFN) has adverse impacts on historic building structures, and because this sound travels much further, it has potential to impact structures well outside of the current FCLP flight patterns of the OLFC pathways 14 and 32. This could be a cause for serious preservation concerns in the town of Coupeville, recognized for its large number of fine examples of Victorian houses. It could also impact unstable cliffs throughout Central Whidbey. The reason low-frequency sound travels further has to do with what's stopping the sound. Sound is a pressure wave vibration of molecules. Whenever you give molecules a "push" you lose some energy to heat. Because of this, sound is lost to heating of the medium it is propagating through. The attenuation of sound waves is frequency-dependent in most materials.

https://en.wikibooks.org/wiki/Engineering_Acoustics/Outdoor_Sound_Propagation This means that low frequencies are not absorbed at nearly the same rate as high frequencies, so low frequencies travel further through air. See Wikipedia for the technical details and formulas of acoustic attenuation. Another effect that affects sound propagation, especially through walls, and other relative hard surfaces is reflection. Reflection is also frequency-dependent. High frequencies are better reflected than low frequencies, which are able to pass through a barrier. All noise consists of pressure fluctuations in the air. For LFN these fluctuations occur between 20 and 160 times per second. Most everyday sounds fluctuate much faster than this (up to 16 thousand times per second), so the term "low frequency" means that the fluctuations are relatively slow compared with other types of sound. Said another way, in audiology, the measured range is restricted to the frequencies relevant to speech 125–8000 Hz (i.e., SI symbol for hertz, meaning "frequency" or specific to sound, "cycles per second"). Low-frequency sound may be loosely defined as having frequencies below this range. Sounds in this frequency range would typically be heard as a low rumble. This is similar to the sound of thunder mentioned before as a possible trigger of landslides. Sometimes there is also a sensation of vibration or pressure on the ears. The scientific way of writing the frequency range is 20Hz to 160Hz. According to Norman Lederman, MS, Director of Research & Development, Oval Window Audio, the commonly used A-weighted decibel metric, is scientifically inaccurate; the C-weighted metric should instead be used. Low frequency noise pollution is an intrusive and unhealthy by-product of aviation. In addition, the current acceptance of A-weighted noise measurements largely understates the degree that low frequency noise pollution impacts the environment. For example, using A-weighting ... a low frequency noise of 50 Hz, which vibrates homes and is felt in the body, is under measured by 30 dB as compared to 1.3 dB in measurements taken with C-weighting. Overall measurements are under measured by 7-8 dB A weighting as compared to C-weighting... "Strong low-frequency components produced by aircraft may rattle doors, windows, and other contents of houses. These secondary physical sound sources may be much more annoying than the original primary low frequency component the low-frequency range of 15-400 Hz. It may then under predict perceived loudness by 7 to 8 dBA, relative to a 1,000 Hz target noise (Kjellberg & Goldstein, 1985). " And more recently a study of the impact of lowfrequency sound on historic structures focused on a soundscape regime at the low end of the frequency spectrum (e.g., 10–25 Hz), which is inaudible to humans: "[N]onindigenous sound energy may cause noiseinduced vibrations in structures. Such low frequency components may be of sufficient magnitude to pose damage risk potential to historic structures and cultural resources. Examples include Anasazi cliff and cave dwellings, and pueblo structures of vega type roof construction. Both are susceptible to noise induced vibration from lowfrequency sound pressures that excite resonant frequencies in these structures. The initial damage mechanism is usually fatigue cracking. Many mechanisms are subtle, temporally multi-phased, and not initially evident to the naked eye. This paper reviews the types of sources posing the greatest potential threat, their lowfrequency spectral characteristics, typical structural responses, and the damage risk mechanisms involved." It is logical to conclude that there is a cumulative effect of frequent Growler flights, especially at levels below 600 feet, as is common with FCLP operations at both NAS Whidbey and OLF, upon the relatively fragile bluffs of Whidbey Island, and that it is gross negligence for the Navy to continue to ignore the potential for danger of contributing to more and more landslides. Who can say with scientific certainty that the large landslide that occurred at Ledgewood was NOT in

part due to Growler-generated vibrations and sound waves? The DEIS, prepared by the Navy, does not discuss, scientifically, with the assistance of credible geologists and others with landslide expertise, the present and future impact of low-frequency vibrations and concussive aspects of sound waves generated and distributed by any EA-18G flights. Neither does it discuss the likelihood that up to 36,100 flights at low levels over the relatively fragile coastline of Whidbey Island as contemplated by the No Action Alternative or by Scenario A, B, or C of Alternative 1, 2, or 3 in the DEIS, might or could or definitely will have an adverse impact on the coastline of Whidbey Island. Certainly this is a potentially significant environment impact that has been left out of the DEIS. While the DEIS does contain an acknowledgement that architectural resources "within NAS Whidbey" and its immediate surroundings may be impacted by noise and vibration from the operation of Growler aircraft (DEIS, pages 4-193-195), it quickly concludes that damage would NOT be expected because sound levels do not reach a weighted 130 dB level. There is no attempt to provide credible documentation as to whether there is the likelihood of a cumulative factor in weighing the possibility of a noise or sound induced landslide, or whether a lower threshold than 130 dB would or could not trigger a destructive landslide on Whidbey Island, especially where there exists and has existed long before the arrival of the Navy on Whidbey Island fractures and fissures from prior times. Once there is a landslide, there is no possibility of a repair. The Coastline of Whidbey Island is unique. As such, it should be guarded and protected, not ignored. Most of the houses built on Whidbey's bluffs were built with a government-issued building permit and were completed and inhabited long before the arrival of Growlers with their low-frequency noise generating engines. It is time for the Navy to engage in meaningful study of this issue, instead of just say there will be no significant impact. That's not good enough. If it is the Navy's position that they would prefer to destroy the coastline of Whidbey Island, then maybe it is time for the Navy to simply buy miles of shoreline properties and raze all structures. It may well be an abuse of power and yet another form of taking for the Navy to continue to engage in Growler activities that may well destroy privately-owned and publically owned waterfront lands of Whidbey. Especially considering that there are many reasonable alternatives to conducting FCLP operations at OLFC. Island County's Comprehensive Plan supports Ebey's Reserve in its Goals and Policies. Washington State's Growth Management Act outlines thirteen goals that communities must plan by; Goal 13 is to "identify and encourage the preservation of lands, sites, and structures, that have historical or archaeological significance." Few communities however, have thoroughly addressed historic preservation in their Comprehensive Plans. Given the abundance of Island County's historic resources, historic preservation is a high priority within the community and several sections of the new Comprehensive Plan, including the preservation of Ebey's Reserve. Certainly the cliffs and coastline must be included -- as the Ebey's Reserve cliffs are the iconic representatives of the Reserve itself.

5.3 EBHEY'S LANDING HISTORIC RESERVE

National Reserves are geographic areas containing nationally significant resources in which federal, state and/or local agencies, along with the private sector, work cooperatively to manage, protect and interpret the resources. Ebey's Landing National Historical Reserve (Reserve) was established by an act of Congress in 1978 in order "to preserve and protect a rural community which provides an unbroken historic record from nineteenth century exploration and settlement of Puget Sound up to the present time." (Public Law 95-625, November 10, 1978). The Reserve, is one of the only remaining area in the Puget Sound region where a broad spectrum of Northwest history is clearly visible

on the land and protected within a landscape that is lived in and actively farmed. Most of the land remains in private ownership, while retaining its historic, cultural, and rural character. The Reserve is nationally significant; when it was established, it represented a new approach to preserving land and heritage resources. This new approach recognized that local government, including Island County (the government and its residents) has always been a key partner in the Reserve. The Reserve's distinct landscape, rural character and heritage resources are economically important within our agricultural, recreation and tourism industries, socially important within our community, and worthy of proactive Preservation. The Reserve's boundaries reflect this history and are the same as those of the Central Whidbey Island Historic District established in 1973, which were based on the settlement patterns resulting from the Public Lands Survey Act of 1850, also known as the Donation Land Claim Act. The legislation points to the fact that this is a community that has evolved from early exploration to the present and consists of descendants of original settlers as well as new residents. As such, the Reserve cannot be interpreted from one specific point in time. In addition, most of the land is privately owned, with the rest a combination of local, state, and federal ownership; creating a unique set of circumstances. The NPS has purchased little land within the Reserve, but has actively acquired scenic easements on farms and important open spaces. The concept of the Reserve was a community effort and participating in land protection is voluntary on the part of private landowners. This has been a key to the Reserve's success in the community and requires fragile relationships to sustain itself. The impetus to protect central Whidbey began from local citizens' initiative to protect Ebey's Prairie from inappropriate development and is well documented in the Reserve's administrative history. The concept of a national historical reserve was viewed as a way to preserve open space and its environs with a minimum disturbance to private landowners—to provide initial federal support without threatening local autonomy. Goal 1. Actively participate as a partner in Ebey's Landing National Historical Reserve in order to "preserve and protect a rural community which provides an unbroken historical record from 19th century exploration and settlement in Puget Sound to the present time" (Public Law 95-625, November 10, 1978). Goal 2. To identify Island County's archaeological resources, and to protect and preserve the cultural, historical, social, educational, and scientific value of these resources in a manner that respects their cultural significance. Island County and the citizen's of Island County have a long-term investment and commitment in the Reserve and have deemed it a priority in the goals and policies of the new Island County Comprehensive Plan. The expansion of the Navy's Growler jet noise into the Reserve's soundscape has considerable impact on the County's ability to achieve the protection and pro-active preservation goals published in its Comprehensive Plan. The low-level jet noise degrades and negatively impacts the rural character, a sustainable and healthy environment, and the economically important heritage resources within our agricultural, recreation and tourism industries -- so important to the community and to the thousands of residents and tourists who visit the Reserve annually. It is logical to conclude that there is a cumulative effect of frequent Growler flights, especially at levels below 600 feet, as is common with FCLP operations at both NAS Whidbey and OLFC, upon the relatively fragile bluffs of Whidbey Island, and that it is gross negligence for the Navy to continue to ignore the potential for danger of contributing to more and more landslides. Who can say with scientific certainty that the large landslide that occurred at Ledgewood was NOT in part due to Growler-generated vibrations and sound waves? The DEIS, prepared by the Navy, does not discuss, scientifically, with the

assistance of credible geologists and others with landslide expertise, the present and future impact of low-frequency vibrations and concussive aspects of sound waves generated and distributed by any EA-18G flights. Neither does it discuss the likelihood that up to 36,100 flights at low levels over the relatively fragile coastline of Whidbey Island as contemplated by the No Action Alternative or by Scenario A, B, or C of Alternative 1, 2, or 3 in the DEIS, might or could or definitely will have an adverse impact on the coastline of Whidbey Island. Certainly this is a potentially significant environment impact that has been left out of the DEIS. While the DEIS does contain an acknowledgement that architectural resources "within NAS Whidbey" and its immediate surroundings may be impacted by noise and vibration from the operation of Growler aircraft (DEIS, pages 4-193-195), it quickly concludes that damage would NOT be expected because sound levels do not reach a weighted 130 dB level. There is no attempt to provide credible documentation as to whether there is the likelihood of a cumulative factor in weighing the possibility of a noise or sound induced landslide, or whether a lower threshold than 130 dB would or could not trigger a destructive landslide on Whidbey Island, especially where there exists and has existed long before the arrival of the Navy on Whidbey Island fractures and fissures from prior times. Once there is a landslide, there is no possibility of a repair. The Coastline of Whidbey Island is unique. As such, it should be guarded and protected, not ignored. Most of the houses built on Whidbey's bluffs were built with a government-issued building permit and were completed and inhabited long before the arrival of Growlers with their low-frequency noise generating engines. It is time for the Navy to engage in meaningful study of this issue, instead of just say there will be no significant impact. That's not good enough. If it is the Navy's position that they would prefer to destroy the coastline of Whidbey Island, then maybe it is time for the Navy to simply buy miles of shoreline properties and raze all structures. It may well be an abuse of power and yet another form of taking for the Navy to continue to engage in Growler activities that may well destroy privately-owned and publically owned waterfront lands of Whidbey. Especially considering that there are many reasonable alternatives to conducting FCLP operations at OLF. Finally, Washington's Growth Management Act, along with other state and local regulations affecting building practices and development, provide a framework for guiding and regulating land use and construction in slide-prone areas. These measures often do not deal well with existing, older development in unstable areas, but with solid technical guidance and with strong local commitment to implementing effective policies, future losses can be reduced significantly. Recommendations for improving how Washington State manages landslide hazards. Several key steps include:

- Improved identification and mapping of landslide hazards, making use of good quality geologic information, high-resolution topographic mapping, and systematic inventories of both past and future landslide activity.
- More effective regulation of land use and building in landslide-prone areas, particularly in those relatively rural jurisdictions where large unstable areas are just beginning to undergo intensive development and where careful planning now may greatly reduce future risks and damages.
- Developing initiatives at the state level aimed at collecting crucial geologic information, providing technical guidance and support to local governments, and directing resources to local jurisdictions to establish in-house geotechnical expertise, to carry out focused studies on problem areas, and to develop improved ordinances and locally-specific guidance and educational materials.
- Greater education of property owners and the development community, along with local officials, regarding both the nature and location of landslide risks and the wide variety of methods available to avoid

or to mitigate those risks. (This must include the Navy if they intend to increase operations to over 36,000 over Central Whidbey. Thank you.

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COMMENTS:

Coastal Zone Landslides & Cliff Stability: Growler Impact Not Included in DEIS

Landslides occur every year in Washington State. Our climate, topography, and geology create a perfect setting for landslides.

Landsliding affects more than 600 miles of Puget Sound's shoreline, reflecting the pervasiveness of high, steep coastal bluffs and the widespread occurrence of geologic conditions that can give rise to slope failures when groundwater levels rise rapidly.

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Landslides along Puget Sound's steep coastal hillslopes has been described in numerous publications, going back as far as Kimball [1897], but more recently in the Coastal Atlas [Washington Department of Ecology, 1977-1980] and Thorsen [1987, 1989]. Mapping of landslides and slope stability has been carried out at the county level by many geologists, best summarized in Manson [1988, 1998]. Tubbs [1974, 1975] described landsliding in the Seattle area in work that has formed the foundation for most subsequent interpretations of Puget Lowland landslides. Following the 1996-1997 landsliding several additional studies were carried out, including: U.S. Army Corps of Engineers [1997], Baum and others [1997], Gerstel and others [1997] and Palmer [1998].

Geology of Landslides

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16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)

4.a. General Noise Modeling

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

8.c. Noise and Vibration Impacts to Cultural Resources

8.d. Island County Cultural Resources

8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

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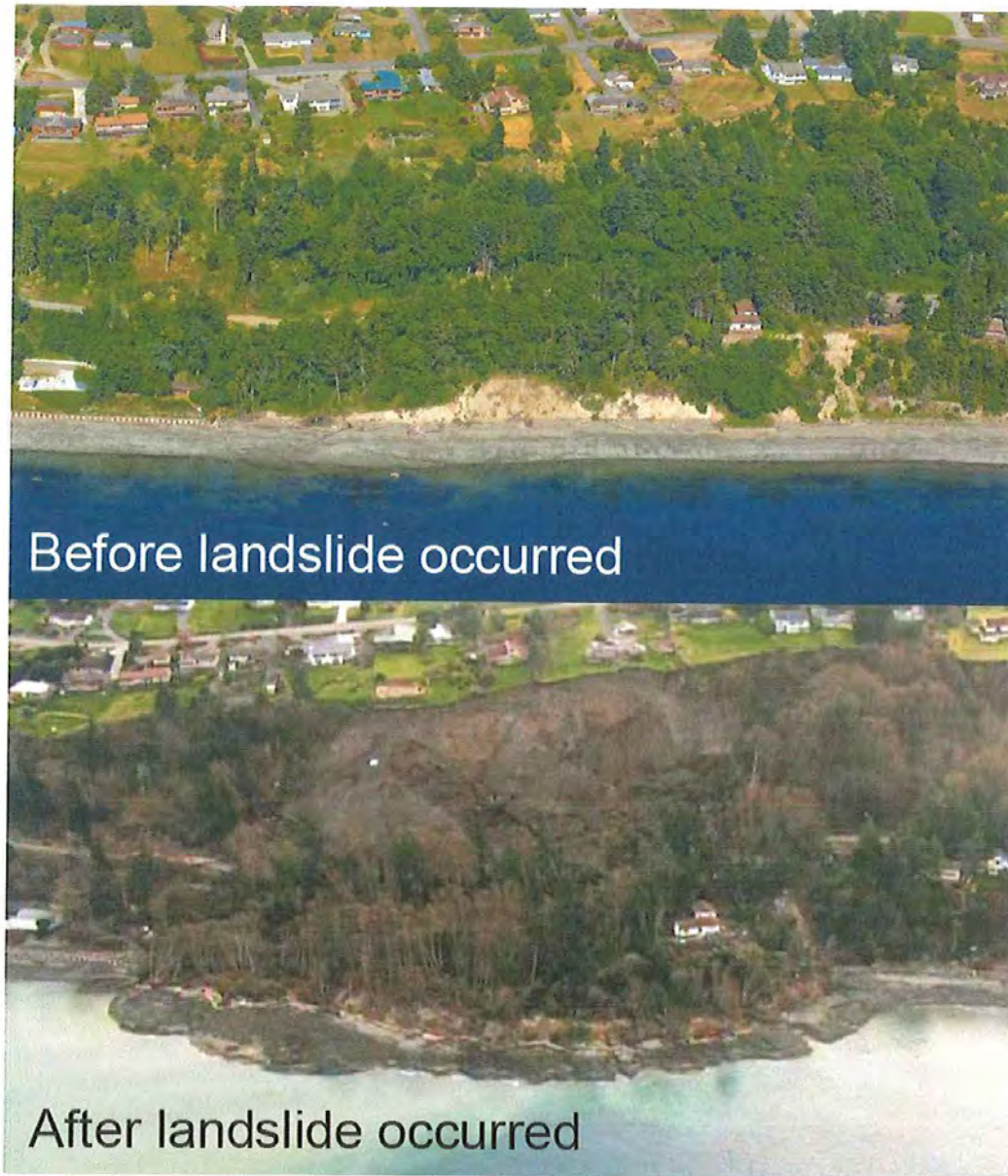
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While the above-mentioned causes are basically responsible for landslides, it is quite often that a triggering mechanism starts the disaster. Conditions favorable for a landslide continue to build up and a final small cause triggers a landslide. This small cause or trigger can occur in many ways. It could be the seepage of water inside rock crevices; vibration from blasting, earthquake, or even thunder; erosion from water streams; deforestation; weakening due to digging and quarrying. It could even be the continued loading due to snow accumulation or collection of large amount of rainwater.



The photo above is of the Whidbey Island Landslide in Ledgewood on 3/27/2013. This slide happened in winter, as do most landslides in Western Washington. This slide also occurred during increased Navy Growler flights over Central Whidbey during 2013. Growlers had been flying the night of this slide.

The Ledgewood–Bonair Landslide (LB Landslide) on Whidbey Island, Island County, WA, is a small portion of a much larger landslide complex. The larger landslide, which is approximately 1.5 miles long, is prehistoric and may date back as much as 11,000 years. The LB Landslide is likely a reactivation of a small portion of the prehistoric complex.

Deep-seated landslides are often slow moving, but can cover large areas and devastate infrastructure and housing developments. **DNR geologists believe the Whidbey Island Coupeville landslide to be a deep-seated landslide.**

Whidbey Island has many unstable cliffs already well identified and Growler jets regularly fly over these areas of instability. Precaution, especially after long periods of rain, should be observed by the Navy by creating protocols for not flying after long periods of rain.

Investigations should be conducted by the Navy for the full impact of the Growler noise model as a trigger for landslide events, which need only a moment to vibrate soil molecules apart from each other and cause a slide. There is no evidence that the Navy has conducted any of this kind of environmental scientific investigation on cliff stability/instability on Whidbey Island.

This past year in 2016 a small slide occurred on Kineth Point destroying the use of approximately 30 - 50 cubic yards of glacial till material. The point to be taken here is that the coastal bluffs of Whidbey Island are comparatively fragile and in danger of being damaged or destroyed, and should be protected from abuse by any person or entity, including the Navy. Effectively, all of the coastline of Whidbey Island is owned by the Federal, State or Local Government, or by private parties.

In its latest DEIS, the Navy recognizes that fact and discusses it in the context of structures at NAS Whidbey, Indian Burial Grounds, and other historic sites, but does not discuss or even mention the Coast Line and high bluffs that in essence surround much of Whidbey Island.

From the Navy's own website: "The EA-18G has more low frequency content than the Prowler it is replacing. Close to the airfield, there might be a slight increase in potential for noise-induced vibration in areas where the peak sound levels exceed 110 dB."

As mentioned above, based on a Navy study (Wyle Aircraft Noise Study, October 2012), the Growler produces more low-frequency noise than the Prowler. Low-frequency noise has a greater impact on areas because it travels further than high frequency noise.

This low-frequency noise (LFN) has adverse impacts on historic building structures, and because this sound travels much further, it has potential to impact structures well outside of the current FCLP flight patterns of the OLFC pathways 14 and 32. This could be a cause for serious preservation concerns in the town of Coupeville, recognized for its large number of fine examples of Victorian houses. It could also impact unstable cliffs throughout Central Whidbey.

The reason low-frequency sound travels further has to do with what's stopping the sound. Sound is a pressure wave vibration of molecules. Whenever you give molecules a "push" you lose some energy

to heat. Because of this, sound is lost to heating of the medium it is propagating through. The attenuation of sound waves is frequency-dependent in most materials.

https://en.wikibooks.org/wiki/Engineering_Acoustics/Outdoor_Sound_Propagation

This means that low frequencies are not absorbed at nearly the same rate as high frequencies, so low frequencies travel further through air. See [Wikipedia for the technical details and formulas](#) of acoustic attenuation.

Another effect that affects sound propagation, especially through walls, and other relative hard surfaces is reflection. Reflection is also frequency-dependent. High frequencies are better reflected than low frequencies, which are able to pass through a barrier.

All noise consists of pressure fluctuations in the air. For LFN these fluctuations occur between 20 and 160 times per second. Most everyday sounds fluctuate much faster than this (up to 16 thousand times per second), so the term "low frequency" means that the fluctuations are relatively slow compared with other types of sound. Said another way, in audiology, the measured range is restricted to the frequencies relevant to speech 125–8000 Hz (i.e., SI symbol for hertz, meaning "frequency" or specific to sound, "cycles per second"). Low-frequency sound may be loosely defined as having frequencies below this range.

Sounds in this frequency range would typically be heard as a low rumble. This is similar to the sound of thunder mentioned before as a possible trigger of landslides. Sometimes there is also a sensation of vibration or pressure on the ears. The scientific way of writing the frequency range is 20Hz to 160Hz.

According to Norman Lederman, MS, Director of Research & Development, Oval Window Audio¹, the commonly used A-weighted decibel metric, is scientifically inaccurate; the C-weighted metric should instead be used.

Low frequency noise pollution is an intrusive and unhealthy by-product of aviation. In addition, the current acceptance of A-weighted noise measurements largely understates the degree that low frequency noise pollution impacts the environment. For example, using A-weighting ... a low frequency noise of 50 Hz, which vibrates homes and is felt in the body, is under measured by 30 dB as compared to 1.3 dB in measurements taken with C-weighting. Overall measurements are under measured by 7-8 dB A weighting as compared to C-weighting...

'Strong low-frequency components produced by aircraft may rattle doors, windows, and other contents of houses. These secondary physical sound sources may be much more annoying than the original primary low frequency component the low-frequency range of 15-400 Hz. It may then under predict perceived loudness by 7 to 8 dBA, relative to a 1,000 Hz target noise (Kjellberg & Goldstein, 1985). "

¹ Norman, Nederland, CO., Aviation Low Frequency Noise of April 13, 2001

And more recently a study² of the impact of low-frequency sound on historic structures focused on a soundscape regime at the low end of the frequency spectrum (e.g., 10–25 Hz), which is inaudible to humans:

“[N]onindigenous sound energy may cause noise-induced vibrations in structures. Such low frequency components may be of sufficient magnitude to pose damage risk potential to historic structures and cultural resources. Examples include Anasazi cliff and cave dwellings, and pueblo structures of vega type roof construction. Both are susceptible to noise induced vibration from low-frequency sound pressures that excite resonant frequencies in these structures. The initial damage mechanism is usually fatigue cracking. Many mechanisms are subtle, temporally multi-phased, and not initially evident to the naked eye. This paper reviews the types of sources posing the greatest potential threat, their low-frequency spectral characteristics, typical structural responses, and the damage risk mechanisms involved.”

It is logical to conclude that there is a cumulative effect of frequent Growler flights, especially at levels below 600 feet, as is common with FCLP operations at both NAS Whidbey and OLF, upon the relatively fragile bluffs of Whidbey Island, and that it is gross negligence for the Navy to continue to ignore the potential for danger of contributing to more and more landslides. Who can say with scientific certainty that the large landslide that occurred at Ledgewood was NOT in part due to Growler-generated vibrations and sound waves?

The DEIS, prepared by the Navy, does not discuss, scientifically, with the assistance of credible geologists and others with landslide expertise, the present and future impact of low-frequency vibrations and concussive aspects of sound waves generated and distributed by any EA-18G flights. Neither does it discuss the likelihood that up to 36,100 flights at low levels over the relatively fragile coastline of Whidbey Island as contemplated by the No Action Alternative or by Scenario A, B, or C of Alternative 1, 2, or 3 in the DEIS, might or could or definitely will have an adverse impact on the coastline of Whidbey Island. Certainly this is a potentially significant environment impact that has been left out of the DEIS

While the DEIS does contain an acknowledgement that architectural resources “within NAS Whidbey” and its immediate surroundings may be impacted by noise and vibration from the operation of Growler aircraft (DEIS, pages 4-193-195), it quickly concludes that damage would NOT be expected because sound levels do not reach a weighted 130 dB level. There is no attempt to provide credible documentation as to whether there is the likelihood of a cumulative factor in weighing the possibility of a noise or sound induced landslide, or whether a lower threshold than 130 dB would or could not trigger a destructive landslide on Whidbey Island, especially where there exists and has existed long before the arrival of the Navy on Whidbey Island fractures and fissures from prior times.

² Louis C. Sutherland and Richard D. Horonjeff; Impact of low-frequency sound on historic structures 2005.

Once there is a landslide, there is no possibility of a repair. The Coastline of Whidbey Island is unique. As such, it should be guarded and protected, not ignored. Most of the houses built on Whidbey's bluffs were built with a government-issued building permit and were completed and inhabited long before the arrival of Growlers with their low-frequency noise generating engines.

It is time for the Navy to engage in meaningful study of this issue, instead of just say there will be no significant impact. That's not good enough. If it is the Navy's position that they would prefer to destroy the coastline of Whidbey Island, then maybe it is time for the Navy to simply buy miles of shoreline properties and raze all structures. It may well be an abuse of power and yet another form of taking for the Navy to continue to engage in Growler activities that may well destroy privately-owned and publically owned waterfront lands of Whidbey. Especially considering that there are many reasonable alternatives to conducting FCLP operations at OLFC.

Island County's Comprehensive Plan supports Ebey's Reserve in its Goals and Policies.

Washington State's Growth Management Act outlines thirteen goals that communities must plan by; Goal 13 is to "identify and encourage the preservation of lands, sites, and structures, that have historical or archaeological significance." Few communities however, have thoroughly addressed historic preservation in their Comprehensive Plans. Given the abundance of Island County's historic resources, historic preservation is a high priority within the community and several sections of the new Comprehensive Plan, including the preservation of Ebey's Reserve. Certainly the cliffs and coastline must be included -- as the Ebey's Reserve cliffs are the iconic representatives of the Reserve itself.

5.3 EBHEY'S LANDING HISTORIC RESERVE

National Reserves are geographic areas containing nationally significant resources in which federal, state and/or local agencies, along with the private sector, work cooperatively to manage, protect and interpret the resources.

Ebey's Landing National Historical Reserve (Reserve) was established by an act of Congress in 1978 in order "to preserve and protect a rural community which provides an unbroken historic record from nineteenth century exploration and settlement of Puget Sound up to the present time." (Public Law 95-625, November 10, 1978). The Reserve, is one of the only remaining area in the Puget Sound region where a broad spectrum of Northwest history is clearly visible on the land and protected within a landscape that is lived in and actively farmed. Most of the land remains in private ownership, while retaining its historic, cultural, and rural character.

The Reserve is nationally significant; when it was established, it represented a new approach to preserving land and heritage resources. This new approach recognized that local government, including Island County (the government and its residents) has always been a key partner in the Reserve.

The Reserve's distinct landscape, rural character and heritage resources are economically important within our agricultural, recreation and tourism industries, socially important within our community, and worthy of proactive Preservation.

The Reserve's boundaries reflect this history and are the same as those of the Central Whidbey Island Historic District established in 1973, which were based on the settlement patterns resulting from the Public Lands Survey Act of 1850, also known as the Donation Land Claim Act. The legislation points to the fact that this is a community that has evolved from early exploration to the present and consists of descendants of original settlers as well as new residents. As such, the Reserve cannot be interpreted from one specific point in time. In addition, most of the land is privately owned, with the rest a combination of local, state, and federal ownership; creating a unique set of circumstances. The NPS has purchased little land within the Reserve, but has actively acquired scenic easements on farms and important open spaces. The concept of the Reserve was a community effort and participating in land protection is voluntary on the part of private landowners. This has been a key to the Reserve's success in the community and requires fragile relationships to sustain itself.

The impetus to protect central Whidbey began from local citizens' initiative to protect Ebey's Prairie from inappropriate development and is well documented in the Reserve's administrative history. The concept of a national historical reserve was viewed as a way to preserve open space and its environs with a minimum disturbance to private landowners—to provide initial federal support without threatening local autonomy.

Goal 1. Actively participate as a partner in Ebey's Landing National Historical Reserve in order to "preserve and protect a rural community which provides an unbroken historical record from 19th century exploration and settlement in Puget Sound to the present time" (Public Law 95-625, November 10, 1978).

Goal 2. To identify Island County's archaeological resources, and to protect and preserve the cultural, historical, social, educational, and scientific value of these resources in a manner that respects their cultural significance.

Island County and the citizen's of Island County have a long-term investment and commitment in the Reserve and have deemed it a priority in the goals and policies of the new Island County Comprehensive Plan. The expansion of the Navy's Growler jet noise into the Reserve's soundscape has considerable impact on the County's ability to achieve the protection and pro-active preservation goals published in its Comprehensive Plan. The low-level jet noise degrades and negatively impacts the rural character, a sustainable and healthy environment, and the economically important heritage resources within our agricultural, recreation and tourism industries -- so important to the community and to the thousands of residents and tourists who visit the Reserve annually.

It is logical to conclude that there is a cumulative effect of frequent Growler flights, especially at levels below 600 feet, as is common with FCLP operations at both NAS Whidbey and OLFC, upon the relatively fragile bluffs of Whidbey Island, and that it is gross negligence for the Navy to continue to ignore the potential for danger of contributing to more and more landslides. Who can say with scientific certainty that the large landslide that occurred at Ledgewood was NOT in part due to Growler-generated vibrations and sound waves?

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Once there is a landslide, there is no possibility of a repair. The Coastline of Whidbey Island is unique. As such, it should be guarded and protected, not ignored. Most of the houses built on Whidbey's bluffs were built with a government-issued building permit and were completed and inhabited long before the arrival of Growlers with their low-frequency noise generating engines.

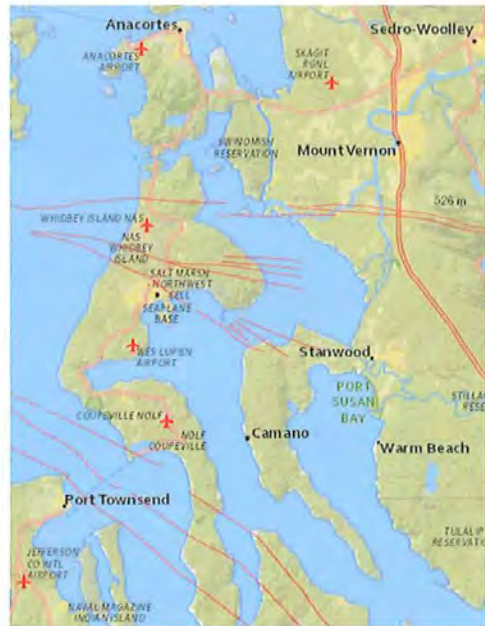
It is time for the Navy to engage in meaningful study of this issue, instead of just say there will be no significant impact. That's not good enough. If it is the Navy's position that they would prefer to destroy the coastline of Whidbey Island, then maybe it is time for the Navy to simply buy miles of shoreline properties and raze all structures. It may well be an abuse of power and yet another form of taking for the Navy to continue to engage in Growler activities that may well destroy privately-owned and publically owned waterfront lands of Whidbey. Especially considering that there are many reasonable alternatives to conducting FCLP operations at OLFC.

Finally, **Washington's Growth Management Act**, along with other state and local regulations affecting building practices and development, provide a framework for guiding and regulating land use and construction in slide-prone areas. These measures often do not deal well with existing, older development in unstable areas, but with solid technical guidance and with strong local commitment to implementing effective policies, future losses can be reduced significantly.

Recommendations for improving how Washington State manages landslide hazards. Several key steps include:

- Improved identification and mapping of landslide hazards, making use of good quality geologic information, high-resolution topographic mapping, and systematic inventories of both past and future landslide activity.
- More effective regulation of land use and building in landslide-prone areas, particularly in those relatively rural jurisdictions where large unstable areas are just beginning to undergo intensive development and where careful planning now may greatly reduce future risks and damages.
- Developing initiatives at the state level aimed at collecting crucial geologic information, providing technical guidance and support to local governments, and directing resources to local jurisdictions to establish in-house geotechnical expertise, to carry out focused studies on problem areas, and to develop improved ordinances and locally-specific guidance and educational materials.
- Greater education of property owners and the development community, along with local officials, regarding both the nature and location of landslide risks and the wide variety of methods available to avoid or to mitigate those risks. **(This must include the Navy if they intend to increase operations to over 36,000 over Central Whidbey.)**

Maps Showing North Whidbey Island Earthquake Faults and No Faults in the Boardman Oregon Area



U.S. Geological Survey Maps

The map above shows NWSTF Boardman and the area surrounding it. There are no faults nearby.

The map to the left shows several faults that run through north Whidbey Island near NAS Whidbey as well as faults near OLF Coupeville.

The map below shows a gold line that traces the Utsalady Point fault. Geologists believe that this fault was active twice within the last 2,200 years, that the earthquakes were magnitude 6.7 or greater, and may have produced tsunamis.

Four tsunami deposits have been found in the Swantown Marsh on Whidbey Island, all of which occurred between 2200 and 1100 years ago, coinciding with the earlier of the two earthquakes on the Utsalady Point fault.

Geologists consider the Puget Lowland to be a complex, tectonically active region.*



<http://earthquake.usgs.gov/earthquakes/eventpage/uw61251016#map>

* http://cascadiageo.org/documentation/literature/cascadia_papers/johnson_etal_204_utsalady_puget_lowland.pdf

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COMMENTS:

The Risks of Single-Siting EA18G Growlers at NASWI

On a visit to Washington D.C. and to the Pentagon by COER Board members in March 2014, Deputy Assistant Secretary Schregardus was asked about the Navy's one-site Growler policy. He was totally silent on the issue and did not answer our question. So, it is unclear why the Navy has concentrated its EW jet aircraft in one geographic location.

Single siting of any military function is a violation of the Technical Joint Cross Service Group (TJCSG) guidelines. TJCSG was formed in the wake of the Base Realignment and Closure Act of 1990 (BRAC) to make recommendations to optimize defense structure for cost and strategy. One of the TJCSG's two guiding principles was "Maintain competition of ideas by retaining at least two geographically separated sites, each of which would have similar combination of technologies and functions. This will also provide continuity of operations in the event of unexpected disruption (page 5)."

The Navy currently is in the position of holding the entire US military electronic warfare jet aviation asset of 82 Growlers in one vulnerable location. Per its 2016 Draft Environmental Impact Statement (DEIS), the Navy plans to add 35-36 more aircraft to NAS Whidbey, bringing the total number of Growlers to 118.

In the same DEIS, the Navy maintains this single siting decision is reviewed annually under the Chief of Naval Operations' Strategic Laydown and Dispersal plan, "...and is consistent with

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.e. Risk of Terrorist Attack
- 14.d. Bridges and Ferries
- 15.a. Infrastructure
- 16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)
- 2.a. Purpose and Need
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations

Navy aviation policy to maximize efficiency of operations by co-locating operational squadrons with support functions, training ranges, and airfields. (pages 2-13)” The reasons cited for the concentration of Growlers are operational synergy, proximity to training regions and airspace and efficient use of current infrastructure. Upon review of the references in the DEIS however, there is no citation of the Strategic Laydown and Dispersal Plan and no verification of the Navy’s claim of review. The Navy’s 2012 Environmental Assessment for the Prowler to Growler transition references the 2008 version of the plan as a rationale to homeport the expeditionary squadrons at Whidbey (pages 1-5). Unfortunately, neither the 2008 nor 2011 versions of the Strategic Laydown and Dispersal Plan are available publicly. Operational review of this single siting decision therefore cannot be verified.

The Navy shows no signs of changing or mitigating the siting of Growlers on Whidbey Island even after its proposal in the current DEIS. Per the Selected Acquisition Report from the Department of Defense, the Navy plans to procure another 42 Growlers, bringing the total number of Growlers to 160 aircraft, nearly double the current fleet size. Less the 7 aircraft forward deployed to Japan, leaves 153 aircraft to be stationed at NAS Whidbey Island. This total number is not apparent in the DEIS and source documents had to be found outside of the DEIS.

This means that 96% of the entire US fleet of electronic warfare aircraft is based on a coastal island served by a bridge and two ferries, in a post-9/11 world where terrorist threats exist...and in one of the most seismic-prone areas in the continental United States.

Whidbey Island – Idyllic and Extremely Vulnerable

Whidbey Island, located at the northern part of Puget Sound is accessible from the North by the Deception Pass Bridge. The bridge, over 180 feet from the water, was built in 1935 by the Civilian Conservation Corps, and is on the National Register of Historic Places. The two-lane bridge encompasses two spans and is a total of 1,487 feet long, with an average daily traffic of between 17,000-20,000 vehicles. As Whidbey Island is served by an EPA designated sole-source aquifer, the Deception Pass Bridge also brings in a 24-inch water line that serves NAS Whidbey and the city of Oak Harbor. The Deception Pass Bridge lies on State Highway 20 and joins Whidbey Island to Fidalgo Island, its neighbor to the North. Fidalgo Island is then connected to the mainland by another bridge near LaConner, Washington. It is the only land-based access to Whidbey Island.

The only remaining way to access Whidbey Island is by its two ferry routes – from Port Townsend on the Peninsula to Coupeville in Central Whidbey, and from Mukilteo on the mainland to Clinton on South Whidbey. Outside these two ferry routes and the Deception Pass Bridge, there are no other ways for vehicles to access the Island.

These limited forms of access can serve as a choke point to limit egress from the Island in an emergency or prevent access of needed commodities or first responders. The 2007 Hazard Identification and Vulnerability Assessment from Island County confirms that Whidbey Island is “...vulnerable to several types of transportation emergencies including blocked bridges and interrupted ferry service”. This make Whidbey Island vulnerable to potential terrorist attacks.

A US Naval Institute (USNI) article describes that single-siting all EW assets in the Pacific Northwest makes it difficult to provide proper cross-training, as “over half of the Army, Marine Corps, SOF and tactical Air Force units are in the eastern U.S. Additionally, DoD has a sizable investment in East Coast ranges that continue to be under-utilized for EW training.” Siting new expeditionary Growlers on the East Coast would establish a geographic balance that is “consistent with long-term Navy policy.” Col. Whitten, in this article, recommends the Pentagon take a look at regional benefits and site new Growlers at Marine Corps Air Station Cherry Point, and not NAS Whidbey Island.

“Ironically, the increase in aircraft loading at NAS Whidbey Island has created an environmental impact even as the draw down in EA-6Bs at Marine Corps Air Station Cherry Point, NC, and delays in the F-35B deliveries are causing serious economic concerns. One would think North Carolina officials would see now is the time to put aside fears that questioning the EA-6B drawdown would somehow be viewed as threatening the F-35B. In fact, they should be making the case to homeport the Navy expeditionary EA-18Gs at MCAS Cherry Point.”

New Growlers Need a Second Site – East Coast Options

Single siting the entire electronic warfare jet arsenal on the West Coast, with one service, on an island served by a vulnerable bridge and ferries is an major operational security risk. This geographic location reduces operational readiness in a warfare strategy that right now has only one active aircraft with all services dependent upon it.

The delivery of 36 new Growler aircraft (plus 42 more on order) provides the Navy with a prime opportunity to site its EW assets at a more operationally beneficial location. This would not only reduce the environmental impact at NAS Whidbey (whose outlying field does not meet current standards for the aircraft), but would enhance operational security and readiness, and provide another community the economic benefit of a modest group of vital aircraft. MCAS Cherry Point, North Carolina is a viable option as it has EW infrastructure from its time hosting the E/A-6B Prowler. There are also other options like Naval Air Station Kingsville, Texas, which has a low population density, updated outlying field, proximity to the East Coast and ready access to the Gulf Coast.

Creative solutions can and must be found to safeguard the Growler, which is a vital asset to US military defense. Loss of jet electronic warfare capability would paralyze all US (and Coalition) airborne missions. Redundancy is key in protecting this vital resource and is practiced with every other jet aircraft the Navy owns. Finding another base for new Growlers will be costly, but not nearly as costly as losing their fleet and entire infrastructure to a terrorist attack.

Earthquake & Tsunami Risk



Many articles have been written in the past few years, including one that generated a lot of comments in the *New Yorker* magazine about the 'big one' coming that would destroy whatever is west of I-5 in Washington State. Experts agree that it's not a matter of if, but when the Pacific Northwest is rocked by an enormous earthquake.

The "Cascadia Subduction Zone" is about the size of Maine. It's a geological copycat of the zone that ruptured in Japan. Experts believe 90 percent of the damage and 99 percent of the deaths in Japan were caused by the Tsunami.

"The consequences of Cascadia will be more than a city, they will be across a region that could potentially affect 10 million people," said DNR geologist Tim Walsh in a 2012 article by Michelle Esteban. Walsh says....

"a big quake will trigger landslides across the region, sheering homes right off their hillside perches.

Even the initial quake itself will feel like an eternity, nothing like the 2001 Nisqually quake that rocked Seattle. And that's most dangerous for tall buildings, long bridges and the above-ground pipelines that won't be able to survive the prolonged tremors."

Now imagine Deception Pass Bridge, which also carries the water pipeline from the Skagit River to Oak Harbor. The bridge and water pipeline will likely fall or be unsafe after an earthquake and it will likely be months before assistance can be provided.

Ault Field at NASWI in Oak Harbor is at Elevation AMSL – 47 ft/14m, and vulnerable to both earthquake and tsunami destruction. A tsunami could carve thru the Strait of Juan De Fuca, flooding everything from the Pacific to Bellingham, including rivers that connect to the ocean.

Isn't the risk potential of an earthquake that scientists agree is coming – worth considering when siting all of the Navy's EA18G Growler jets in harms way?

The loss could be devastating and extremely costly. If each jet costs about \$84M and only 2 can be made in a month in Missouri – this would seem to qualify as a major security risk, and speaks to the gravity of placing the entire fleet of EA18G Growlers in the path of a predicted major

earthquake and tsunami event. In modeling of this event, Ault field will be inundated by water. When minutes and seconds count, will there be time to save these jets from destruction?

From an article by Chris Goldfinger, Oregon State University, that speaks to the Cascadian subduction zone and its capacity for generating giant earthquakes:

"The Cascadia subduction zone is a crack in the Earth's crust, roughly 60 miles offshore and running 800 miles from northern Vancouver Island to Northern California. This fault is part of the infamous [Pacific Ring of Fire](#), the impact zone where several massive tectonic plates collide. Here, a slab of the Pacific Ocean floor called the Juan de Fuca plate slides eastward and downward, "[subducting](#)" underneath the continental plate of North America.

When any two plates grind against each and get stuck, enormous stress builds up until the rocks fracture and the fault rips apart in a giant earthquake. Two other segments of the Ring of Fire ruptured this way—Chile in 1960 at magnitude 9.5, the largest quake ever recorded on Earth, and Alaska's horrible Good Friday earthquake of 1964, at 9.2 the strongest jolt ever to hit the continent of North America.

Cascadia, however, is classified as the quietest subduction zone in the world. Along the Cascadia segment, geologists could find no evidence of major quakes in "all of recorded history"—the 140 years since white settlers arrived in the Pacific Northwest and began keeping records. For reasons unknown, it appeared to be a special case. The system was thought to be aseismic—essentially quake free and harmless.

By the 1970s several competing theories emerged to explain Cascadia's silence. One possibility was that the Juan de Fuca plate had shifted direction, spun slightly by movement of the two larger plates on either side of it. This would reduce the rate of eastward motion underneath North America and thus reduce the buildup of earthquake stress. Another possibility was that the angle of the down-going eastbound plate was too shallow to build up the kind of friction needed to cause major quakes.

But the third possibility was downright scary. In this interpretation, the silence along the fault was merely an ominous pause. It could be that these two great slabs of the Earth's crust were jammed against each other and had been for a very long time—locked together by friction for hundreds of years, far longer than "all of recorded history." If that were true, they would be building up the kind of stress and strain that only a monster earthquake could relieve."

Evidence amassed suggests that in fact, "Cascadia has generated powerful earthquakes not just once or twice, but over and over again throughout geologic time. A research team led by [Chris Goldfinger](#) at Oregon State University (OSU) used core samples from the ocean floor along the fault to establish that there have been at least 41 Cascadia events in the last ten

thousand years. Nineteen of those events ripped the fault from end to end, a “full margin rupture.”

Goldfinger continues,

“It turns out that Cascadia is virtually identical to the offshore faults that devastated Sumatra in 2004 and Japan in 2011—almost the same length, the same width, and with the same tectonic forces at work. Cascadia’s fault can and will generate the same kind of earthquake we saw in Japan: magnitude 9 or higher. It will send a train of deadly tsunami waves across the Pacific and crippling shock waves across a far wider geographic area than all the California quakes you’ve ever heard about.

Based on historical averages, the southern end of the fault—from Cape Mendocino, California, to Newport, Oregon—has a large earthquake every 240 years. For the northern end—from mid-Oregon to mid-Vancouver Island—the average “recurrence interval” is 480 years, according to a recent Canadian study. And while the north may have only half as many jolts, they tend to be full-size disasters in which the entire fault breaks from end to end.

With a time line of 41 events the science team at OSU has now calculated that the California–Oregon end of Cascadia’s fault has a 37 percent chance of producing a major earthquake in the next 50 years. The odds are 10 percent that an even larger quake will strike the upper end, in a full-margin rupture, within 50 years. Given that the last big quake was 312 years ago, one might argue that a very bad day on the Cascadia Subduction Zone is ominously overdue. It appears that three centuries of silence along the fault has been entirely misleading. The monster is only sleeping.”

Another article, “A Fault Runs Through It” by Bill Cannon reminds us that the Northwest is big-time earthquake country.

[Brian Atwater](#), a U.S. Geological Survey (USGS) scientist and a UW affiliate professor of geological sciences, and USGS scientist Bob Bucknam explain a new fault line. They and colleagues provide a picture of a land-heaving earthquake along the newly discovered fault that may have occurred a thousand years ago.

“A strip of land about 10 miles long and four miles wide -- parts of West Seattle and Bainbridge Island -- rose from the Sound higher than 20 feet in some places, sending a giant wave rolling northward. In the same instant, old-growth forest around Lake Washington slid to a watery resting place.

They estimate the fault is within a few miles of the surface and was active as recently as 1,000 to 1,100 years ago. It follows the Bainbridge Island ferry route east under Puget Sound and the route of Interstate 90 toward, and possibly beyond, the Cascade Mountains.

The discovery was an alarm bell for engineers and emergency planners. This was a threat they had no idea existed: shallow earthquakes under a densely populated region. At magnitude 7 or greater, the tremors could shake the ground more than twice as fiercely as two mid-20th century earthquakes that rocked Washington.

"The big problem with this new hazard is that it occurs at ground zero, where 2.5 million people live," says Craig Weaver, who coordinates the USGS earthquake hazards program in the Northwest. "This reminds us that the Northwest is big-time earthquake country."

If, in fact, the Navy maintains this single siting decision is reviewed annually under the Chief of Naval Operations' Strategic Laydown and Dispersal plan, this would be an ideal time to make that review --- before the final EIS is written. As citizens, we see many reasons for review of the one-site DoD policy for stationing Growlers on Whidbey Island and enough risks associated with that placement to warrant serious investigation by military administrators.

EA-18G Growler EIS Project Manager
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard
Norfolk, VA 23508
Attn: Code EV21/SS

First Name: [REDACTED]
 Last Name: [REDACTED]
 Agency/Organization: COER
 City/Municipality: Coupeville
 State/Province: Washington
 Zip/Postal Code: 98239

COMMENTS:

Failing to Address the 40 Additional Growlers at NASWI in the Draft EIS

The Draft Environmental Impact Statement (EIS) is deficient in not addressing 40 additional Growlers that are in the process of delivery beyond the 35 or 36 identified in the Proposed Action.

The Draft EIS states that The Proposed Action would:

- continue and expand existing Growler operations at the Naval Air Station Whidbey Island complex, which includes field carrier landing practice by Growler aircraft that occurs at Ault Field and Outlying Landing Field Coupeville
- increase electronic attack capabilities by adding 35 or 36 aircraft to support an expanded U.S. Department of Defense mission for identifying, tracking, and targeting in a complex electronic warfare environment

The Environmental Impact Statement evaluates the potential environmental impacts associated with the following resource areas: airspace, noise, safety, ... , *as well as the cumulative impacts of the Proposed Action and other local projects. [emphasis added]*¹

The Draft also states that the total number of Growler Aircraft at Ault Field will be 117 or 118.²

A Department of Defense (DoD) report from 2016 states

¹ Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex Volume 1, pg. Abstract-1

² *ibid*, Table 2.3-1

The procurement profile of the FY 2017 PB adds 7 EA-18G aircraft in FY 2016. The result of this addition will be a FY 2016 FRP contract for Lot 40 EA-18G aircraft, which increases the total Program of Record (PoR) from 150 to 157. ... These aircraft are in the process of delivery ...³

Initial aircrew training will be conducted at NAS Whidbey Island, WA. ... Limited I-Level for some EA-18G and F/A-18E/F common maintenance tasks has been established at Whidbey Island, WA. Airborne Electronic Attack (AEA) I-Level maintenance will be stood up at Whidbey Island and aboard the CVWs commencing FY18⁴

It is clear from the DoD report that 157 Growlers will be based at NASWI at times, not 117 or 118 as described in the Draft EIS. The additional 40 Growlers are part of the same mission and are "in the process of delivery."

The Draft does not acknowledge the additional 40 Growlers, describe what activity they will undertake or analyze how that activity will impact the affected environment. For example, will maintenance engine run-ups be conducted on the additional Growlers?

The Draft EIS has not fulfilled its obligation to "evaluate[s] the potential environmental impacts ... as well as the cumulative impacts of the Proposed Action and other local projects." Council on Environmental Quality (CEQ) Regulation 1502.9 states

(c) Agencies: (1) Shall prepare supplements to either draft or final environmental impact statements if: (i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or (ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.

Comments from Karen Sullivan, West Coast Action Alliance in response to Mike Schanche, at Congressman Larsen office, who told a source today (February 8th, 2017) that the planes in excess of those addressed in the DEIS will be parked for use if another plane breaks down or possibly be assigned elsewhere. He said they will not have active planes above the stated number.

"The Navy has, over the past few years, taken great satisfaction in publicly stating that I and others whose facts don't precisely match theirs are "confused" or "misled." I had merely reported what Navy reps actually said and what was in the acquisition report, more than a month ago. The number 160 was confirmed multiple times. In any other setting but the Navy's, this would be considered as "the truth."

³ Selected Acquisition Report (SAR), RCS: DD-A&T(Q&A) 823-378, EA-18G Growler Aircraft (EA-18G), As of FY 2017 President's Budget, March 17, 2016, pg. 7. <https://goo.gl/1QtY4K>

⁴ *ibid*, pg. 37

NASWI is, according to the Navy, the consolidated home of the Growler fleet and is where they all train from. Yet now we are told they can train almost anywhere?

Perhaps an ordinary citizen trying to do the math by using addition and subtraction does indeed become confused, because what Welding gave you is not in any EIS and looks more like a shell game. I suppose that if they can call someone like me, who's read and studied every one of their damned NEPA documents, "confused," then as a writer I'd say that reflects right back on their ability to be transparent and clear about their goals. But transparency is not how they roll. For example, none of the dozens of NEPA documents that evaluate impacts from pile-driving have ever added up the total number of pilings to be driven over just a few years in Puget Sound and the Strait of Juan de Fuca, at nearly 5,300, but a Navy spreadsheet does.

And that's the point. Splitting impacts from 160 Growlers into probably 6 separate NEPA processes is a deliberately designed tactic to confuse the public and avoid cumulative impacts analyses. Making us feel like idiots because we can't get every detail right evidently gives someone in the Navy a great deal of satisfaction.

The simple truth, as you and everyone else knows who's enduring the Navy's cheating as it destroys anyone and anything that gets in its way, is this: we are not going away. We will not stand by and let them ruin lives and property. The harder they push, the harder we do, too.

This is not the Navy that I have known and respected all my life. This is a runaway monster that shows contempt for Americans who dare to ask questions about its insatiable appetite. If earning the forever enmity of a growing number of Americans as well as others around the world is considered an acceptable cost of doing their business, then they're doing a fine job of it."

Additionally, In responding to an email on the same subject of 160 Growlers at NASWI on February 13th 2017 to Michael Monson, Mike Welding, from NASWI notes that

"Other carrier-based aircraft will be assigned overseas in Japan, while some test aircraft will be assigned to NAS Patuxent River, in Maryland and the Naval Air Weapons Station at China Lake, CA. There will also be some training aircraft assigned to NAS Fallon, NV, as part of the Weapons School located there."

Mr. Welding mentions at least 4 other facilities in his comments about where the

Growlers will be training – some of these have been recommended by citizens as places for the Navy to consider as alternatives to training at OLF and over Puget Sound. COER has recommended both China Lake and NAS Fallon be considered as viable alternatives that should be considered by the DEIS instead of basing all new Growlers at NASWI. Mr. Welding affirms that they train there and seems to be contradicting the Navy's DEIS that arbitrarily says no alternatives further away than 50 miles from Oak Harbor, WA can be considered.

COER continues to challenge the Navy on the TOTAL NUMBER of jets first submitted to the public in the Navy's 2005EA. That EA addressed the transition from Prowlers to Growlers, which were to be fewer in number and quieter than the Prowlers. The EA said 52 Growlers would replace 72 Prowlers. Clearly the Navy has 160 jets ordered but no honest plans to study their impact. Not on 72, 82, 118, or 160.

From the 2005 EA:

- ❖ "Replacement of the EA-6B with the EA-18G will begin in 2008 and be completed in 2013. The replacement process will result in an overall decrease in the number of Electronic Attack (VAQ) aircraft and associated personnel stationed at NAS Whidbey Island. A total of 57 EA-18G aircraft will replace the existing 72 EA-6B aircraft, resulting in a decrease of 15 VAQ aircraft stationed at NAS Whidbey Island and a decrease of approximately 1,106 personnel associated with the AEA aircraft squadrons (Tables 1-1 and 1-2)."

The first Growler did not arrive on Whidbey Island until 2008 and it was not until 2013 that the impacts of the new jet were felt by the under-flight communities. It was clear that neither of the submitted facts from the Navy were true: the jet was not quieter and there were more of them. The Navy has asserted that the community did not challenge the Navy within the 6 years – but COER has a FOIA document from the Navy that shows the first Growler did not arrive on Whidbey Island in 2008.

COER took the Navy to court in early 2013 to press them for an EIS on the transition from Prowler to Growler addressing cumulative impacts of all operations at NASWI, and particularly of the Growler aircraft. This was well within the 6 years. The Navy conceded and agreed to prepare an EIS in 2013 – still within the 6 years. The Navy never raised a statute of limitations defense to our filing of the complaint and waived that defense. The Navy ignored this threshold and moved onto its 2012EA and gave themselves permission to add yet more Growlers.

It was only thereafter that the Navy limited the scope of COER's demanded EIS to the addition of 36 more Growlers and are for all practical purposes omitting impacts of the first Growlers and the 82 that are now at NASWI. The Navy did this in their scoping of the EIS, AFTER they agreed to prepare an EIS. COER has always challenged that narrowing of the scope as counter to the intentions of a NEPA Environmental Impact Statement. So from 2008 to 20016, the Navy moved approximately 82 Growlers to

Whidbey Island and no impacts of that huge transition have been studied. We continue to challenge the Navy's misleading information about the total number of jets and therefor their cumulative total impact.

The Current DEIS now asserts that there will be 118 EA18G Growlers sited at NASWI. According to the Congressional records this number is also not valid. The real number is 160. The impacts of the transition from Prowler to Growler have never been sufficiently studied while the Navy continues to bootstrap all of its electronic warfare jets to Whidbey Island. The real number are not addressed in the DEIS.

This chart below is from Congressman Larsen in 2014 is in response to "where are all these Growlers going?" There were 15 more planes purchased and 18 more scheduled for production since his response was written.

The table below shows the current locations and status of all Growlers as of October 15, 2014:

Number of Aircraft		Location	Description
135	94	82 NASWI	Actively operating at NASWI
		12 NASWI	Inactive at NASWI, to be used in case an aircraft becomes inoperable
	5	Naval Air Facility Atsugi	Forward deployed to Japan
	36	Naval Air Systems Command (NAVAIR) headquartered in Maryland; awaiting delivery; not yet built	For research, development, and testing of various technologies, as we discussed at the meeting.

The 22 Growlers in the Navy's unfunded request this year are outside the scope of the POR. If Congress votes to buy any of these aircraft the POR would increase by that number.

Chief of Naval operations Greenert is also quoted in Dec of 2015 in response to: *Where are they going?* He states in that article that the Navy had planned purchases of 153 Growlers. Only the DEIS has listed fewer than 150 Growlers to be located at NASWI.

It appears that the Navy has a history of ordering jets, then as they are being delivered - do the EIS "paperwork" - not really a process, more of a required activity. It also appears that everyone but the public knew/knows that 160 Growlers will be sited at NASWI. Isn't that COUNTER to the intent of the NEPA process?

The Selected Acquisition Report for Growlers – 2015:

Attached is the official congressional-approved Program of Record Selected Acquisition Report (SAR). It shows a total of 150 Growlers approved by congress (135 up through 2012, 15 more since)

Program Acquisition Unit cost - total costs divided by units planned: \$81.2M per Growler

Total program acquisition cost: \$14.395 Bn

Expended to date (FY2015): \$10.132 Bn

Deliveries:

Planned to date (FY2015): 113

Actual: 116

Total planned: 150

Delivery rate: 2/month

Executive Summary FROM EA-18G Growler Aircraft (EA-18G)

As of FY 2017 President's Budget

Defense Acquisition Management

Information Retrieval

(DAMIR)

- ❖ The procurement profile of the FY 2017 PB adds 7 EA-18G aircraft in FY 2016. The result of this addition will be a FY 2016 FRP contract for Lot 40 EA-18G aircraft, which increases the total Program of Record (PoR) from 150 to 157. As part of the A-12 settlement, the EA-18G Program received three EA-18G airframes, Contractor Furnished Equipment (CFE), and Airborne Electronic Attack (AEA) kits from the Boeing Company. The value to the program was \$198M. These aircraft are in the process of delivery and are annotated as Lot 37A aircraft. There was not a Total Obligation Authority (TOA) increase to the program. The three Growler aircraft have been added to FY 2013 and will be included in the PoR. FY 2016 \$198 Million A-12 In-kind Settlement does not reflect TOA. No additional resources were provided in FY 2016 to the Department of the Navy. The Assistant Secretary of the Navy, Research, Development, and Acquisition (ASN (RD&A)) acknowledged and concurred with the FY 2015 Program Deviation Report (PDR) on June 2, 2015. ASN(RD&A) approved the APB on October 15, 2015. The additional 7 EA-18G aircraft and related support in FY 2016 caused Procurement and O&S cost breaches. Additionally, an RDT&E breach occurred as a result of increased funding for Complex Emitter, Tactical Targeting Network Technology, and Distributed Targeting Processor-Networked efforts. As a result, a PDR and updated APB will be submitted. A contract modification to the Lot 38 FRP contract for the Lot 39 FRP procurement awarded on October 26, 2015.

In summary:

Q: How many Growlers is the Navy now planning?

A: 160

Q: How many Growlers were planned to replace the Prowlers?

A: 57

Q: How many Growlers are discussed in the 2017 EIS? A: 118

Reference: http://www.dod.mil/pubs/foi/Reading_Room/Selected_Acquisition_Reports/16-F-0402_DOC_51_EA-18G_DEC_2015_SAR.pdf

The DEIS is inaccurately or insufficiently assessing the impact of 160 Growlers, not 118 Growlers. This is so misleading, one wonders if the operation projection totals also have

any relationship to actual plans. This is not information that the public can be expected to glean from reading the Navy's DEIS, which is long on words and short on actual detailed information.

RECOMMENDATION: Supplement the EIS to address the 40 additional Growlers to be stationed at NASWI and allow further opportunity for public comment before the Final EIS is prepared.

14 February 2017

EA-18G Growler EIS Project Manager
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard
 Norfolk, VA 23508
 Attn: Code EV21/SS

First Name: [REDACTED]

Last Name [REDACTED]

Agency/Organization: COER

City/Municipality: Coupeville

State/Province: Washington

Zip/Postal Code: 98239

Would you like to join the mailing list for future updates? Yes

Comments:

Growler Electromagnetic Warfare Training & Impacts at OLF and in Washington State NOT Covered in DEIS

The Navy has never been transparent about the use of OLF for electromagnetic warfare training and little mention has ever been made of the fixed emitter at OLF. COER had to FOIA documents from the Navy to find out about its usage but the Navy still provided little more than charts.

The placement, proposed placement, and usage of fixed and mobile emitters at various locations in Washington State (and elsewhere) has been treated like at least 3 different projects and kept primarily as EA's whenever possible. Yet it is clear that the use of this warfare training equipment by Growler pilots is all connected and has impacts on the civilian communities that they take place in and over. It is all Growler training and part of the Navy's efforts to consolidate and expand Growler training at NASWI. The new fixed tower emitter in Everett is triangulating electromagnetic emission toward the Olympic Peninsula, where they are proposing the new use of permitted mobile emitters on state and national forest roads. Electromagnetic emitters (mobile or fixed) are part of scheduled training hours for Growler pilots and do have singular and cumulative impacts on the region and Whidbey Island.

These impacts should be discussed in this DEIS and especially the fixed emitter at OLF should be discussed. The full impacts of the OLF emitter's usage and it's impacts on the environment, wildlife, people and the pilots have not been analyzed nor revealed to the public since its placement in the late 1990's. Science, safety and regulations for electromagnetic emissions have improved and progressed since the 1990's.

Further, the Navy never adequately substantiated its need for non Defense Department lands, as was required by the 1988 Master Agreement; instead of proving that no DoD lands were available or suitable, it said using the Olympic Peninsula's public lands was for the purpose of saving \$4 to \$5 million dollars of jet fuel per year. Saving fuel is a good goal, but this reason does not prove that DoD lands were either unavailable or unsuitable, which was the primary requirement of the Master Agreement.

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.c. Compliance with the National Environmental Policy Act

How does the Navy justify training flights doing electronic warfare on non-DoD public lands for which it never properly justified to the public its reasons for using?

On page 5-19 of the DEIS, electronic warfare is listed as a “relevant activity,” and in the Abstract it states the proposed action would:

“...Increase electronic attack capabilities by adding 35 or 36 aircraft to support an expanded U.S. Department of Defense mission for identifying, tracking, and targeting in a complex electronic warfare environment.”

So, with electronic attack being relevant to the DEIS, it can be assumed that a discussion on impacts from training with this suite of electronic attack weapons should be included.

The 200-page EA Warfare Training Range document covers a huge area of airspace, but only 875 acres of land were specifically named, between Everett and Mt. Baker. The lone ground-based emitter mentioned was located in Coupeville, and the number of annual training events for Growler jets proposed back in 2009 was 275. That's what the biological opinion evaluated. Not three mobile emitters and one fixed tower in 14 brand-new places, not 36 low-altitude Growler jets in areas previously not evaluated, not 2,900 Growler training events in the Olympic National Forest and another 2,100 elsewhere, for eight to 16 hours per day, 260 days per year.

The stated intent of the 2014 Electronic Warfare EA was to “turn out fully trained, combat-ready electronic attack crews.” However, it also focused on the ground-based emitters and glossed over the airborne components of the training.

Nowhere do any Navy NEPA documents from the last 7 years discuss the risk of exposure to chronic downward-directed radiation from weaponized forms of directed energy aboard these jets, to civilians, wildlife and habitat.

The only discussion was a brief mention in the 2014 EA, in reference to radio transmitters on the mobile emitter trucks and the stationary transmitter at Pacific Beach in Everett. The Navy referenced a paper by Focke et al, and concluded that links from radiation exposure to leukemia were speculative, when in fact, that same paper stated unequivocally that there are direct links between radiation exposure and childhood leukemia. **Why is any mention or discussion of risks from exposure to electromagnetic radiation from Navy jets completely missing from all discussions of potential impacts?**

The fixed emitter at OLF Coupeville, the fixed emitter tower being built in Everett (Pacific Beach) on Navy property, the mobile emitter trucks on the Olympic Peninsula are all part of the same proposed expansion of the EA18G Growler trainings at NASWI and at OLF with the addition of 35/36 new Growlers. All of these electromagnetic emitters are here ONLY because of the EA18G Growlers sited at NASWI. These trainings are connected and must be assessed as a cumulative impact of electromagnetic impacts on not only Central Whidbey but also the lands and sea BETWEEN the emitters from Everett to the Olympic Peninsula.

An editorial published by the Everett Herald, March 19, 2015, challenged the Navy's attempts to allay civilian concerns about the impacts of electromagnetic emitters and Growler trainings with this equipment:

In addition to the annoyance and noise from increased jet flights over OLF and Ebey's Landing National Historical Reserve, the Olympic National Park and Olympic National Forest and the Colville and Okanogan–Wenatchee national forests, there is also a lack of clarity from the Navy about the potential for harm from the electromagnetic signals used in the training.

"In its [own information about the proposal](#) (for moving the Growler training from Idaho to Washington), the Navy attempts to minimize the risk from the signals, [comparing them to the type of emissions from cellphones and Bluetooth devices](#). The emitters, when in use, would be 14 feet off the ground, directing the signals into the sky. The trucks themselves would be cordoned off in a 100-foot radius with signs reading, "Warning/Radio Frequency Hazard; Personnel Hazard Exists In This Area; Keep Moving." But accidental direction of the electronic signals could be a problem for any person, animal or bird in their path. [A Navy spokesman told the Peninsula Daily News](#) in October that 'if someone is in the exclusion area for more than 15 minutes, that's a ballpark estimate for when there would be some concern for potential to injure, to receive burns.'

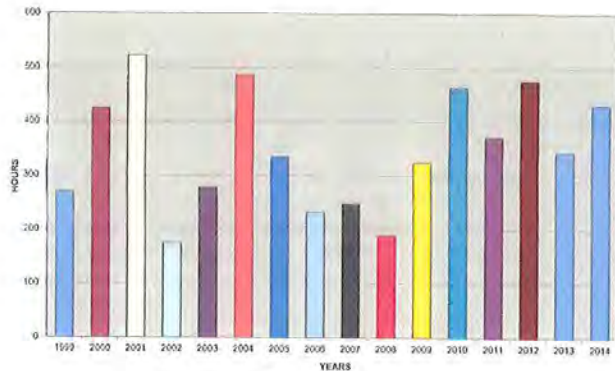
Clearly, this involves signals much stronger than your cellphone or Bluetooth device. Each truck's two-person crew would be on hand to tell people not to loiter, but that puts a lot of expectation on how attentive the crews would be."..... "The need for the Navy to train its fliers for their missions isn't being challenged, but the potential for harm to people and wildlife calls for conditions and an environment that offer better control and safety than are available in forest lands open to the public. One suggestion for a more suitable site: How about the 327,000 secured acres of Joint Base Lewis McChord's Yakima Training Center

OLF Stationary Electromagnetic Emitter

A fixed electromagnetic emitter is currently operational and located at OLF for EA18-G Growlers practice training. The emitter at OLF was installed in 1998 and is used on average 600 hours per year. The DEIS is silent on it's environmental impacts.



YEARLY



Yearly record of Fixed Emitter use at OLF

OPERATIONS OF AN ELECTRONIC COMBAT TRAINING FACILITY AT OUTLYING
FIELD COUPEVILLE, NAVAL AIR STATION WHIDBEY ISLAND, ISLAND
COUNTY, WASHINGTON

Pursuant to Council on Environmental Quality Regulations (40 CFR
Parts 1500-1508) implementing procedural provisions of the
National Environmental Policy Act, the Department of the Navy
gives notice that an Environmental Assessment (EA) has been
prepared and an Environmental Impact Statement is not required
for the construction and operation of an electronic combat
training (ECT) facility at Outlying Field (OLF) Coupeville, Naval
Air Station, Whidbey Island (NASWI), Island County, Washington

The proposed action is to construct and operate an ECT facility
capable of providing needed electronic combat training in
established Military Operation Areas for aircrews stationed at
NASWI. The proposed ECT facility would be located in the
southwestern portion of OLF Coupeville and would consist of a
radome resting on top of a single-story, 50-foot square building.
The radome would house an electronic device called "ground threat
signal generator" or Device AN/PSQ-T22. The total height of the
structure would be about 45 feet above ground level. The
proposed facility would also have an aircraft beacon, a parking
area, and a security zone within a chain link fence. The proposed
action is needed to complement the existing ECT facility at
Seaplane Base, NASWI in supporting current and follow-on EA-6B
hardware/software improvements and maximizing in-flight aircrew
training in the Pacific Northwest.

Document photos from a FOIA from NASWI on Electromagnetic Emitter at OLF -



OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, D.C. 20350-2000

IN REPLY REFER TO

From: Chief of Naval Operations
To: Commanding Officer, Naval Air Station Whidbey Island

Subj: FINDING OF NO SIGNIFICANT IMPACT FOR THE CONSTRUCTION AND
OPERATIONS OF AN ELECTRONIC COMBAT TRAINING FACILITY AT
OUTLYING FIELD COUPEVILLE, NAVAL AIR STATION WHIDBEY
ISLAND, ISLAND COUNTY, WASHINGTON

Ref: (a) CINCPACFLT ltr 5090 Ser N46541/2433 of 23 APRIL 1997
(b) OPNAVINST 5090.1B
(c) Advisory Council on Historic Preservation ltr of
13 June 1997

Encl: (1) Notice of Availability of Environmental Assessment
and Finding of No Significant Impact
(2) Finding of No Significant Impact

The Navy did not perform any studies to prove that there was no significant impact

Installation & Operation of Fixed Emitter at Naval Station Everett, Pacific Beach, WA



To facilitate training of Growlers at NASWI, the Navy has proposed construction of a new permanent tower south of Building 104 (Figure above) in Everett, which is required to support a fixed emitter (MRES) at NS Everett Annex Pacific Beach. The 40-foot tower and fixed emitter would have a total height of about 66 ft. above ground level on a Navy-operated, controlled, and owned site, to which the public does not have access. The MRES is capable of generating an electromagnetic wave at frequencies ranging from 2 to 18 gigahertz (GHz). It can emit up to 64 simultaneous signals and can transmit in pulses or a continuous wave. The tower is being built tall enough so it can be pointed toward the Olympic Peninsula with little obstruction.

This new tower and fixed emitter are a result of the Navy's one-site Growler stationing and training at NASWI. This new stationary emitter along with the mobile emitters will impact civilians in the greater Everett region, including the southern part of Whidbey Island.

We really don't know how many people will be impacted because of lack of information from the Navy, research or any scientific studies of how often and when these devices will be used, or what their range is.

Additionally, counties of Washington State to be directly impacted by expanded Growler electromagnetic warfare training, including the proposed addition of 35/36 Growlers discussed in the DEIS (and additional Growlers not included in the DEIS but ordered by the DOD): in the Okanogan and Colville National Forests beneath the assigned airspace of the Olympic Peninsula and National forest, Okanogan and Roosevelt MOAs. These areas include the following 9 Counties: Island, Clallam, Ferry, Grays Harbor, Jefferson, Okanogan, San Juan, Skagit, and Stevens. The Navy does not include these in the overall/cumulative impacts in its DEIS.

Health Impacts are a Public Concern:

Dr. Martin Pall, a professor emeritus of biochemistry and medical sciences with Washington State University, has written several peer-reviewed papers on the subject of how electromagnetic radiation of various levels impacts human beings, as well as [international lectures](#) on the subject.

Pall refutes the claims by the Navy that "no significant impacts" will occur to wildlife or humans from their electromagnetic war games. He has provided reams of evidence, including his own scientific reports that document, in detail, the extremely dangerous impacts of even very low levels of the microwave and electromagnetic radiation that the Navy would be emitting during their war games.

Pall's paper, titled "[Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects](#)," outlines the impact of electromagnetic radiation on biological organisms, and was given the honor of being posted on the "Global Medical Discovery" site as one of the top medical papers of 2013.

According to Pall, a NASA study, and more than 1,000 other scientific reports and studies, the health impacts of even the Navy's lowest levels of electromagnetic radiation emissions are shocking. The NASA study lists dozens of human health impacts, and one of the tables in the report, titled, "Subjective effects on persons working in radio frequency electromagnetic fields," lists symptoms that include hypotension, exhausting influence on the central nervous system, decrease in sensitivity to smell, periodic or extreme headaches, extreme irritability, increased fatigability, and intensification of the activity of the thyroid gland.

A [2013 paper](#) published in the journal *Reviews on Environmental Health*, titled "Radiation from wireless technology impacts the blood, the heart and the autonomic nervous system," lists a series of 14 different pleas from multiple scientists who state the need for much more vigorous action on the health effects from microwave EMFs.

There is an abundance of peer-reviewed, published scientific studies about the harmful effects to humans of electromagnetic radiation. Dahr Jamial, an investigative reporter for Truthout, has published the following publications as listed in Appendix D as evidence of potential harm from these emissions. Dahr Jamail notes that a quick search on Google Scholar for "Electromagnetic fields risk to humans" produces over 63,000 results, most of which are published scientific studies that chronicle the deleterious impact of electromagnetic fields to the human organism.

One report titled "Biological effects from electromagnetic field exposure and public exposure standards," published in the journal *Biomedicine and Pharmacotherapy* in 2008, concluded:

"Health endpoints reported to be associated with ELF and/or RF include childhood leukemia, brain tumors, genotoxic effects, neurological effects and neurodegenerative diseases, immune system deregulation, allergic and inflammatory responses, breast cancer, miscarriage and some cardiovascular effects."

The BioInitiative Report concluded that a reasonable suspicion of risk exists based on clear Evidence of bioeffects at environmentally relevant levels, which, with prolonged exposures may reasonably be presumed to result in health impacts.

Mike Welding, the Naval Air Station at Whidbey Island spokesman, recently admitted to Peninsula Daily news reporters that any antennas emitting electromagnetic energy produce radiation. "As a general answer, if someone is in the exclusion area for more than 15 minutes, that's a ballpark estimate for when there would be some concern for potential to injure, to receive burns," he said. He has made no comment about the electromagnetic emitter located at OLFC.

The US Air Force published the report, "Radiofrequency/Microwave Radiation Biological Effects and Safety Standards: A Review." Page 18 of the report states: "Nonthermal disruptions have been observed to occur at power densities that are much lower than are necessary to induce thermal effects. Soviet researchers have attributed alterations in the central nervous system and the cardiovascular system to the non-thermal effect of low level RF/MW radiation exposure." The report concludes, "Experimental evidence has shown that exposure to low intensity radiation can have a profound effect on biological processes." At the time that report was written, the standard for exposure was 50,000 mW/m². Today, the maximum exposure limit is 10,000 mW/m², yet even that level is more than 1 million times the allowable exposure limits published in the 2012 BioInitiative Report.

Navy Admits Harmful Biological Effects:

On October 4, 1971, the Naval Medical Research Institute published a research report written by Dr. Zorach Glaser. The title of the report is "Bibliography of Reported Biological Phenomena ('Effects') and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation."

Given that the Navy continues to claim that their EMR warfare training exercises will have "no significant impact" on humans, it is interesting to note that their own research paper's abstract states:

More than 2,000 references on the biological responses to [microwave and] radio frequency and microwave radiation, published up to June 1971, are included in the bibliography. (Three supplementary listings bring the number of citation to more than 2,300.) Particular attention has been paid to the effects on man of non-ionizing radiation at these frequencies.

The Navy's paper lists well over 100 negative biological effects caused by microwave and radio frequency radiations, of which here is a partial list from their report:

corneal damage, tubular degeneration of testicles, brain heating, alteration of the diameter of blood vessels, liver enlargement, altered sex ratio of births, decreased fertility, sterility, altered fetal development, decreased lactation in nursing mothers, altered penal function, death, cranial nerve disorders, seizures, convulsions, depression, insomnia, hand tremors, chest pain,

thrombosis, alteration in the rate of cellular division, anorexia, constipation, altered adrenal cortex activity, chromosome aberrations, tumors, altered orientation of animals, birds and fish, loss of hair, and sparking between dental fillings.

Dr. Martin Pall, WSU emeritus faculty, concludes,

"What the Navy is doing we have no idea because they don't tell us . . . but from what little they have told us, they are using a lot of pulse fields in wavelengths that are damaging to us, to biological organisms. They give us not one iota of evidence of what biological effects are produced by those fields, and don't even tell us what fields they are using. You only find empty statements of 'don't worry about these things.'"

COER notes the abundance of peer-reviewed, published scientific studies about the harmful effects to humans of electromagnetic radiation and submits the following as evidence of potential harm from these emissions as researched and reported by Dahr Jamail and investigative reporter for Truthout. Dahr Jamail reports that a quick search on Google Scholar for "Electromagnetic fields risk to humans" produces over 63,000 results, most of which are published scientific studies that chronicle the deleterious impact of electromagnetic fields to the human organism.

Some of Jamail's selected sites are: "Carcinogenicity of radiofrequency," "The sensitivity of children to electromagnetic fields," "Exposure to extremely low frequency electromagnetic fields and the risk of malignant diseases - an evaluation of epidemiological and experimental findings," "Extremely low frequency electromagnetic fields as effectors of cellular responses in vitro: possible immune cell activation," and "Exposure to electromagnetic fields and the risk of childhood leukemia," to name just a few.

One study selected, titled "[Leukemia and Occupational Exposure to Electromagnetic Fields: Review of Epidemiologic Surveys](#)," states in its abstract: "Results for total leukemia show a modest excess risk for men in exposed occupations, with an enhanced risk elevation for acute leukemia and especially acute myelogenous leukemia."

Another report titled "[Biological effects from electromagnetic field exposure and public exposure standards](#)," published in the journal Biomedicine and Pharmacotherapy in 2008, concluded: Health endpoints reported to be associated with ELF and/or RF include childhood leukemia, brain tumors, genotoxic effects, neurological effects and neurodegenerative diseases, immune system deregulation, allergic and inflammatory responses, breast cancer, miscarriage and some cardiovascular effects. The BioInitiative Report concluded that a reasonable suspicion of risk exists based on clear evidence of bioeffects at environmentally relevant levels, which,

with prolonged exposures may reasonably be presumed to result in health impacts.

Mike Welding, the Naval Air Station at Whidbey Island spokesman, recently admitted to Peninsula Daily news reporters that any antennas emitting electromagnetic energy produce radiation. "As a general answer, if someone is in the exclusion area for more than 15 minutes, that's a ballpark estimate for when there would be some concern for potential to injure, to receive burns," he said.

in 1994, the US Air Force published the report, "[Radiofrequency/Microwave Radiation Biological Effects and Safety Standards: A Review](#)." Page 18 of the report states: "Nonthermal disruptions have been observed to occur at power densities that are much lower than are necessary to induce thermal effects. Soviet researchers have attributed alterations in the central nervous system and the cardiovascular system to the nonthermal effect of low level RF/MW radiation exposure."

The report concludes, "Experimental evidence has shown that *exposure to low intensity radiation can have a profound effect on biological processes*." At the time that report was written, the standard for exposure was 50,000 milliwatts per square meter. Today, the maximum exposure limit is 10,000 milliwatts per square meter, yet even that level is more than 1 million times higher than the allowable exposure limits published in the [2012 BioInitiative Report](#).

Electromagnetic Radiation Impacts Mammals:

This [de-classified Army report](#) on RF weapons outlines several ways that RF radiation can harm mammals. One is thermal: burning and hyperthermia (heat stroke) inducing disorientation. "In prolonged hyperthermia, with temperatures over 40° C to 41° C, the brain suffers severe damage that usually leads to death." The size of the animal and the wavelength of the radiofrequency are most important. In the Rhesus monkey a frequency of 0.225 GHz at 10 W/kg of body weight caused the body temperature to increase to 42° C within 10-15 minutes. A lower dose of 5 W/kg caused the temperature to increase to 41.5° C in less than two hours. The convulsive threshold for rats is estimated to lie between 22-35 W/gm for one second.

A second method of incapacitating mammals with RF radiation is called "microwave hearing." Microwave hearing is the sensation of buzzing, ticking, hissing or knocking sounds that originate within the head from pulsed microwaves. There is no sound present. The threshold energy of the microwave auditory response in humans is a function of pulse width and frequency but also varies from individual to individual. For a frequency of 2.45 GHz, the incident energy density per pulse must equal or exceed 20 mJ/kg body weight with pulse widths between 0.5-32

microseconds. Not enough information is given about the mobile emitters to make a determination of this effect. The threshold for animals and birds is not known. The onset is immediate but only lasts as long as the exposure. In addition to disrupting hearing, there might also be an adverse psychological effect.

A third method for incapacitating mammals with RF radiation is disruption of neural control. The neurons are electrically stimulated in a synchronous manner. Electronic stimulation of neural synchrony can be achieved. At just the right frequency, pulse repetition rate and energy, seizure can result. "The condition thought to be necessary to produce [this effect is] an overall [pulse] repetition rate of 15 Hz. Such a field may be developed using a radar-like, high-peak power, pulsed source...The effective range could be hundreds of meters." This would vary from individual to individual.

Conclusions:

This DEIS insufficiently examines the environmental impacts of electromagnetic warfare training by EA19G Growlers that have changed and increased from the Prowler aircraft, As the Navy increases the number of Growlers at NASWI, it is logical to conclude that electromagnetic radiation impacts will also increase. The public has seen no information from the Navy on the health and safety consequences of these expansions. The public has a right to know.

To determine whether a single project is improperly segmented into multiple parts, courts have applied a four-part test that asks whether "the proposed segment (1) has logical termini; (2) has substantial independent utility; (3) does not foreclose the opportunity to consider alternatives; and (4) does not irretrievably commit federal funds for closely related projects." *Save Barton Creek*, 950 F.2d at 1140 (citing *Piedmont Heights*, 637 F.2d at 439; applied in *O'Reilly v. US Army Corp of Eng*, 447 F3d 225(5th Cir. 2007)).

(1) This precedent should be applied to the individual and cumulative electromagnetic emitter(s) impacts associated with the EA18G Growler trainings from emitters and aircraft.

(2) The Navy has not provided "any evidence" to support their claims that electromagnetic frequencies (EMF) do not impact wildlife and humans deleteriously. Should EMF be allowed without sufficient research?

(2) Growler expansion also brings increased exposure to electromagnetic radiation.

(3) Science shows cause for public concern regarding electromagnetic radiation. Emitters, whether stationary or mobile, should be challenged until proof of safety is provided through analysis.

(4) Continued use of the OLFC fixed emitter should be challenged on health and safety concerns since the Navy's only and last public environmental assessment was provided in 1998 with a

Navy decision of 'no significant impact' – almost 20 years ago. Science shows cause for public concern regarding electromagnetic radiation use by the Growlers and the Growler trainings.

Finally, the Navy Draft EIS is deficient in numerous areas as described in the comments above and by others, and is inadequate to support a decision. Council on Environmental Quality (CEQ) Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion."

<https://www.law.cornell.edu/cfr/text/40/part-1502>

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COMMENTS:

DEIS FAILURE TO ADDRESS WATER RESOURCE/GROUNDWATER ISSUES & RISK 2/1/2017

The National Environmental Policy Act, as implemented by Council on Environmental Quality Regulations, requires that Environmental Impact Statements evaluate the potential environmental impacts on identified resource areas. Those resource areas include *water resources*. As stated in the DEIS, water resources includes *groundwater*. It is described as, "water that flows or seeps downward and saturates soil or rock, supplying springs and wells. Groundwater is typically found in aquifers with high-porosity soil where water can be stored between soil particles and within soil pore spaces.[if !supportFootnotes][1][endif] Such is the groundwater beneath the areas of the proposed project areas at Ault Feld and the OLF. This water resource is used for both water consumption and agricultural irrigation.

In May 2016, the U.S. Environmental Protection Agency (EPA) issued lifetime health advisory levels for two PFAS, specifically perfluorooctane sulfonate, PFOS, and perfluorooctanoic acid, PFOA, at 70 parts per trillion, individually and combined. In March, the Navy provided the Ebey's Landing National Historical Reserve with a request/notification that the Navy wanted to drill wells at OLF. In August, 2016, the Navy held a meeting on August 18th of the Installation Restoration Program Restoration Advisory Board. During the meeting it was reported that the EPA made it clear to the Navy that the Navy was responsible for the plume of contamination at NASWI advancing 400 feet per year because of Joint & Several Liability. During this presentation, emerging contaminates, (PFAS's) were discussed. On November 10th, about 100 homeowners in a 1-mile radius of OLF received a letter from the Navy that their wells might be

- 1.a. Thank You
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 11.a. Groundwater
- 11.b. Floodplains and Wetlands
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.a. Socioeconomic Study Area
- 12.d. Population Impacts
- 17.a. Hazardous Materials and Waste Impacts
- 2.c. Compliance with the National Environmental Policy Act
- 2.n. Alternatives Considered But Eliminated
- 3.c. Military Training Routes
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

contaminated and they should have their well water tested. This was the same week the Navy released its DEIS to the public. In the DEIS, water issues are dismissed as not relevant to the Growler DEIS process. Clearly from the timeline, the Navy was planning for an investigation of PFAS's at OLF and Alt Fields for probable contamination. The timeline demonstrates they did not want citizens weighing in on this issue. We believe there is a direct connection between Growlers and the increase of Growlers and FCLP's at OLF to connect Growlers to the ground water contamination issue and probably risk of future crashes and use of more toxic chemicals.

Naval Air Station Whidbey Island already has its hands full with a designated superfund site that will have less EPA over-site in the coming years. The EPA has recently announced that no superfund sites will receive funding in 2017.

WA5170090059	Naval Air Station, Whidbey Island (Ault)	Ault Field groundwater is contaminated by VOCs including TCE and TCA . Soils and sediments are contaminated by PCBs , heavy metals , pesticides , PAHs and dioxins . ¹³²¹	09/18/1985	02/21/1990	09/25/1997	--
WA6170090058	Naval Air Station, Whidbey Island (Seaplane)	Soil in areas of the seaplane base was contaminated by heavy metals including lead and arsenic , pesticides and PAHs . Contaminated soil has been removed; possible remaining groundwater, surface water and sediment contamination is not thought to pose a risk to human health or the environment. ¹³³¹	09/18/1985	02/21/1990	06/29/1995	-- 09/21/1995

The DIES falsely concludes, in a single paragraph of its Executive Summary, that the proposed action would have no significant impact on Water Resources. The only water resource in Central Whidbey is the ground water that supplies fresh water to most of the people and businesses of Central Whidbey and beyond. There are no surface water resources – no creek, rivers or streams in Central Whidbey. The Navy's narrow conclusion is based only the assessment of the potential impacts from "construction activities."

The DEIS fails to address the potential impacts from the *operations* associated with the Growlers. Those operations include takes-offs, landings, and Field Carrier Landing Practice (FCLP). Included in these operations are *planned responses to accidents* and *preparedness training for those accidents*, both of which can involve the releases of toxic chemicals to groundwater. Equipment such as fire trucks are a regular part of FCLP procedures and are present during all Navy flight training at OLF.

Although the DEIS touches on the use of best management practices (BMP) to mitigate "spills" associated with "construction activities", it does *not* address mitigations of spills or releases

associated with *operational activities*. Releases of contaminants, including PFASs, are known to have adverse impacts far beyond areas of construction and operational activities.

Perfluorooctanesulfonic acid (PFOS)
 Perfluorooctanoic acid (PFOA)
 Perfluorohexanesulfonic acid (PFHxS)
 Perfluoroheptanoic acid (PFHpA)
 Perfluorononanoic acid (PFNA)
 Perfluorobutanesulfonic acid (PFBS)

Further, these chemicals are in the fire-retardant foam carried on Navy fire trucks that would extinguish aircraft fires, should they occur.



Because groundwater travels through aquifers, or is drawn from aquifers for transport to other areas, contamination can have significant adverse impacts far beyond the point of contamination. The USEPA has designated the Whidbey Island aquifer system as a sole-source aquifer: it is the only supply of potable water for at least half of the island's residents. There is no viable alternative source of drinking water for those using groundwater, and the aquifer boundaries have been defined (URS, 1995).

The City of Oak Harbor relies on three municipal wells that draw from the aquifer for 25% of its drinking water. Residents near Ault Field who are not located in the Oak Harbor water district use private wells that draw from the aquifer. The Town of Coupeville relies on water drawn from the aquifer for 100% of its drinking water, as do more than one-hundred private well owners in the area of OLF. The potential for serious impacts to groundwater by Growler operations proposed in the DEIS are evidenced by the adverse impacts that have already occurred. Additional risks are unwarranted and will be expensive for the Navy to mitigate.

The groundwater beneath Ault Field and the OLF are contaminated with the Navy's toxic chemicals.

List of the chemicals of concern:

Identified chemicals of concern have migrated off-site where they have contaminated public and private drinking water supplies. The severity of those impacts is such that private well owners living near Ault Field and the OLF have been provided bottled water by the Navy and advised by both the Navy and regulatory agencies not to drink or cook with the water from their wells. The Town of Coupeville has been forced to curtail the use of its primary drinking water well and rely more heavily on wells that, if not already contaminated, are in danger of contamination. The Town's water system now provides approximately 800 in-town customers and over 250 out-of-town customers with water containing the Navy's toxic chemicals. This

includes the Island County hospital, the County offices and jail, restaurants and business in the state's 2nd oldest town of Coupeville, and three schools.

The adverse impacts from the Navy's pollution did not result from "construction activities." They resulted from activities associated with jet training operations at both sites, and this includes the current cumulative impacts of more Growlers (and more P8's. at Ault field).

The proposed increases in numbers of EA-18G operations under all of the proposed action alternatives will increase the risks of additional impacts. Those risks have yet to be assessed and are ignored in the DEIS. No jets should be allowed at OLF until the fire-retardant contamination is removed from the ground water that has been contaminated by the Navy.

Source of Contamination

The source of PFAS contamination at Ault Field and OLF is a PFAS-containing fire suppressant known as Aqueous Film-Forming Foam (AFFF). Data on PFC drinking water contamination are collected under the EPA's Unregulated Contaminant Monitoring Rule (UCMR) shows 664 fire-or-crash-training sites, identified by the Department of Defense, where AFFF was used, often for decades.

The Navy's investigation of PFAS contamination at Ault Field is centered on fire training and other areas where AFFF was known to have been used or may have been used. Based on Island County real estate records, 177 parcels are located down gradient of the identified sites, of which 66 are documented as served by private wells. It is unknown whether the remaining parcels are served by private wells.^{[if !supportFootnotes][2][endif]}

The Navy's PFAS investigation at OLF was extended to off-site areas after PFAS chemicals were found in an OLF drinking water well. Based on Island County records, there are approximately 350 properties and over 100 private wells located within a mile of a single point at the OLF where PFAS contamination was discovered. As of January 30, 2017, the Navy still claimed to have no record of the use of AFFF at OLF. Those claims are contradicted by eyewitness accounts. The Navy held an 'Open House' public meeting in the community to explain its off-site investigation plans but made no effort to obtain information from the community about the use, storage, or disposal of AFFF at the OLF. The Navy's on-site investigation plan for the OLF identifies the location of the on-site contaminated well as a "source" and further states, "Additional suspected source areas include the runway and storage buildings located east of the runway."^{[if !supportFootnotes][3][endif]}

PUBLIC AND PRIVATE WATER WELLS NEAR OLF



Continued Threat to Drinking Water Resources

The Navy has made it made clear its intention to continue its use of AFFF, even though alternatives are available. Contrary to representations being made to the public, AFFF is still being used at the Ault Field fire training school as stated in the Navy's January 17 on-site investigation plans. Should there be an accident at the OLF, Navy firefighters will apply AFFF and further jeopardize drinking water supplies for hundreds of families. The threat posed to the Town of Coupeville's main drinking water supply-well, which serves over one thousand homes, is located adjacent to the OLF runway. Because PFCs are unregulated, the law doesn't require their cleanup — and the costs of getting them out of the environment aren't covered by the Superfund program, so if the water is contaminated further by a crash, should the town or homeowner have to pay for the Growler crash risk? Certainly one single source aquifer is of equal or greater value than increased FCLP's at a non-conforming site that has a variety of other Navy alternatives that could be utilized for Growler FCLP training (currently - OLF has not been used from November, 2016 through February, 2017 due to drilling equipment at the field).

The Navy's proposed increases in Growler operations will increase the potential for an accident and contamination of drinking water supplies for all of Central Whidbey, including three schools, the County hospital, the County offices and the restaurants and businesses of Coupeville, as well as, all residents of Coupeville.

Additionally, the geology of Smith Prairie makes it one of the worst locations for an airfield that might suffer contamination. OLF is located on top of where two glaciers met and left sand and

gravel down to 250 feet. Unlike most of Whidbey Island that has clay between surface soils and the aquifer – there is no clay between the surface and the aquifer. Contamination will not only go straight down into the aquifer but it will travel there very quickly. Central Whidbey's water supply depends upon the wells around OLF. Contamination is not a risk the town or community should take on, since Growlers have other choices for FCLP training.

Contaminating Whidbey Island's single source aquifer is not worth the Safety Risk of a Growler Crash

From the DEIS, page 4-261: "... While it is generally difficult to project future safety/mishap rates for any aircraft, the Growler has a well-documented and established safety record as a reliable aircraft."

This quote is the extent of effort expended on an accident risk analysis in the DEIS! Yet a thorough risk analysis (while "difficult to project") must accompany every credible EIS. An EIS must include treating a "maximum foreseeable" (different from worst-case) accident, its probability of happening, its potential adverse consequences and its means and costs of remediation. The magnitude of a risk must be calculated from its probability and its consequences; comparisons of risks for each alternative proposed should be done. Stating "reliable aircraft" and "well-documented safety record" in the DEIS in no way acknowledges or documents the very real potential for a catastrophic flight incident at OLF.

The DEIS writers somehow found it convenient to withhold important statistics (like the 22 crashes since 2000 of the EA-18G and its closely related F/A-18 E,F aircraft) from the DEIS. It also omitted several aggravating factors at OLF that are conducive to catastrophic accidents, capable of endangering the civilian populace, the environment, local properties and the pilots themselves. The EIS accident risk analysis for all four action alternatives must include obvious risk factors. Some of these are facility shortcomings, unique Whidbey atmospheric challenges, scheduling compromises, contributors to pilot error like night flying, and the very significant and pernicious Growler technical problem, the hypoxia conundrum (on steady rise in the last eleven years) that continues to dog the Growler, its flyers and its engineers.

Furthermore, an EIS must include with its accident probabilities the potential harms and disruptions resulting from accidents of various levels of complexity and intensity. Since risk is defined as level of consequences multiplied by probability of occurrence, the more flight operations projected the more probability of crashes and the more risk. Omitting a risk analysis falsely engenders a tone of unrealistic optimism that challenges credibility. This DEIS puts forth options to multiply flight operations sixfold (amplifying the probability of crashes *at least* sixfold) yet robotically and blithely pronounces the same "no significant impact" mantra for the far lesser operation hours. Mathematical realism is abandoned: Dramatically amplifying flight operations will severely escalate the probability of a significant deadly, destructive "impact."

This response considers in detail the following DEIS-omitted factors that are amplifiers of, and results of, accident risk. (See further detail below on each of the bulleted items):

Compromises on facilities:

- A runway 35% shorter than Navy-required Growler runway-length.
- 1/40 or 2.3% of regular Navy-required open acreage surrounding the runway.
- Residences, Island County's Transportation fuel-depot, businesses, county facilities, a highway and a city are under runway approach paths and many are within what should be uninhabited accident-risk zones at runway ends.

Atmospheric conditions:

- Frequent wind shifts, creating dangerous tail-winds for allowed FCLPs. (Tailwinds are avoided for carrier landings.) Some civilian spectators have witnessed FCLPs with tailwinds exceeding strict tailwind-speed regulations.
- Amplified risks from Whidbey's extensive bird life potentially interfering with low-level flight ops over water and near forest and hedge areas.
- Frequent fog, rain events, and wind shifts that could force "edgy" "flight on" calls for desperately needed, time-sensitive training flight allocations. This is occasioned by the crowded calendar forced by a 6-fold amplification of flight op numbers. (Projections in the DEIS would require half the days of the year—183 days—for required flights.[Calculation below [1]] This means decreasing the safety envelope around shifting atmospheric conditions to the bare minimum to fit flights into a demanding schedule.
- A vast "density altitude" difference between OLF (d.a. 337) and typical dry Middle East sortie locations (Persian Gulf d.a. 2182). While not endangering pilots in OLF training, it endangers them in a war theater: it increases their risk of hitting a Persian Gulf carrier deck too hard or not soon enough by misjudging the lift of air that is vastly different from that in their OLF training.

Pilots and planes – circumstances contributing to risk:

- Night flights with tired pilots (tiredness welcomed for realistic practice).
- The troubling increase in the number of breathing and pressurization problems in FA-18G and its close relatives the FA-18E/F; the pilots rate the Growler's tendency toward hypoxia their most pressing problem. The Congressional Armed Service Committee has even suggested that the Growler fleet be grounded until the problem is identified in the ventilation system.
- Pilots are trainees learning new, dangerous maneuvers, automatically increasing accident risk above routine flights done by seasoned pilots.
- The Growlers are part of a family of similar planes that have a significant accident rate (despite the "well-documented and established safety record" stated in the DEIS). This rate becomes part of the accident probability for OLF.

Effects of catastrophic accidents on the Whidbey Island Community

- An EIS must state the risk of accidents AND their secondary consequences. Dispersal into the water table of the fire-fighting Type B foam with health-endangering, toxic ingredients is one of these. Training and accidents have already injected PFOS chemicals into the Whidbey water table, rendering some vital citizen wells unusable, and endangering the Coupeville water supply (toxins present but barely below a dangerous level). These banned toxins are still being stored for emergency use on Whidbey; increased flight ops will amplify risk of their usage and thus endanger the water table that is directly under the OLF.
- Because FCLP practice is taking place in a crowded occupied residential and business area, results of a crash are multifold and amplified beyond those of a crash in an open desert area. Economic, health and infrastructure damage becomes a major part of the risk equation: consequences times probability = risk, meaning that even risk probabilities that might be tolerated in an uninhabited desert setting become intolerable within a civilian-populated setting.

Conclusions and Implications of all the risky conditions at the OLF:

The Navy, while showing considerable insensitivity to citizen complaints, finds itself adjusting flights, limiting schedules, and receiving constant noise complaints, all because it is training on a small footprint passed down through decades of use and growing to be a very populated region.

This constitutes a huge, noisy, toxic, dangerous foot trying to fit into a small shoe—a foot the Navy is proposing to grow six times larger, making the headaches of scheduling, logistics, administration and angry public interface six times (or more) larger as well. Over all this activity looms the perpetual “sword of Damocles”: a catastrophic deadly accident that could, besides creating civilian deaths, damage buildings, the environment and tourism, while shattering the public's diminishing patience and faith vis a vis local Navy ops. There is a likelihood that one crash would precipitate intense resistance toward allowing any more operations at OLF, and indeed perhaps at Ault Field (whose noisy and polluting operations are challenging for Oak Harbor residents) necessitating a hasty transfer to FCLPs to another location.

The DEIS must face and honestly evaluate accident risk - not leave it out or pronounce it negligible. This is either a head-in-the-sand or a cover-up approach on behalf of the writers. To summarize the argument: the elevated risk is not just to citizens and their property, not just to airmen, but to the Navy's whole training operation as well. The large accident risk, caused by the perilous, inappropriately cramped operation of training flights, threatens the island and the Navy with the prospect of a sudden catastrophic event that enrages the public and forces the Navy to rapidly find an alternate practice location should that inevitable event happen.

Up to now, the Navy has not had the will to thoroughly vet several feasible off-Whidbey training areas for stationing all additional Growlers or indeed all the controversial Growler training. (Significantly, some alternate areas have already been used for overflow FCLPs during an 8-month moratorium in 2013.) COER lacks the ability to thoroughly assess the viability of these or other options. Only the Navy has that capability, yet it has inexplicably chosen not engage in this

exercise. We therefore proceed with the hope that the Navy—and the national, state, and local politicians who have some sway over the Navy—begin this process in earnest. NEPA requires the Navy to assess its own properties and facilities before it encroaches on public and private lands.

With a realistic assessment of substantial crash risk placed into the EIS, it follows that the time is right now to begin a transition of anticipated increased Growler training to an alternate facility. It would prevent increasing the already elevated catastrophic risk associated with currently compromised flight op conditions. Ultimately, *all* FCLPs could be moved from OLF, eliminating the accident risk from Coupeville area. And it would be a win-win: improved Whidbey public relations, reduced catastrophic risk for residents (and pilots), and vastly easier planning and administration of the estimated 175 days of needed flight times for the 35-36 Growler option. The latter would be due to far more predictable atmospheric conditions as well as less negative social, political and infrastructure conditions. And a bonus: density altitude ratings far more akin to those flown in typical current battle zones adding more safety to EA18G Growler carrier landings.

II. Further information and discussion of all the accident-risk factors outlined above:

- The World War II OLF runway is 5,200 feet long; regulations from which it has been exempted (by a permanent waiver issued by the Navy!) require that it be ideally 7000 feet, and this additional length is a good margin for trainees. Now most WWII runways were deactivated years ago so the antiquated runway depth is thinner than regulation, and thinner than that needed by the heavier Growler, courting the possibility that a mishap could crack it, more so as it is weakened by flexing under the proposed DEIS six-times-intensified use. (Rough landings are to be expected for FCLP trainees.) The “make-do” of the facility has not gone unnoticed by the Navy. In 1987, a Navy planning document (Navy document 101) reviewed and reported the status of the OLFC for future use. It cites the depth of the concrete and below-standard length of the OLF landing strip as insufficient for new jets and increased use. Cracking could catch a wheel, disorient the plane, collapse landing gear, etc., resulting in a crash or dangerous re-direction toward structures or the highway residences. There is a highway (with average 9000 vehicles a day) just a few seconds ahead of the fighter's landing spot. The nearby highway danger is further amplified by the fact that often crowds of parked cars and gawkers accumulate to watch the FCLPs and these people could be struck directly or indirectly during an FCLP failure. There are also amplified car-accident risks in that takeoffs and landings and orienting just a few hundred feet above the drivers can be distracting and startling.
- During a somewhat recent attempt (2010) to set up an outlying field in eastern North Carolina, the Navy sought, among a number of alternative locations, about 30,000 acres of relatively undeveloped land to provide civilian safety and to prevent “unreasonable encroachment.” This is an admission that the Navy considers 30,000 acres a baseline need for an OLF. [2] At only 700 acres OLFC falls 29,300 acres short of such a standard, (i.e., having just 1/40 or 2.3% of the desired clear acreage). To see how unsuited OLF

and its operations are to this standard, a 30,000 acre circle would be 3.8 miles in all directions from OLF's center. This circle would include the majority of the town of Coupeville, as well as numerous residences, parks, and facilities east and west of OLF. In fact, the east-west reach of such a circle would go beyond Whidbey's shores well into the waters of Puget Sound.

Yet mysteriously the Navy is year-by-year, decade-by-decade enjoying permission (granted by itself) to go full bore with increased operations (remarkably, a now-proposed six-fold increase of these operations) declaring an improbable "no significant impact" in the DEIS, seemingly finding no apparent need for an accident risk analysis.

Even in 1987 there was worry by the Navy about the civilian encroachment and dangers but lack of will on the part of the Navy and Coupeville administrators let a move to a safer location languish.^[3] Exacerbating the problem is that the County, with the Navy's tacit indulgence over the years, has not discouraged development in accident-prone zones. Required clear Accident Protection Zones (APZs) at the ends of the OLFC runway don't exist in any realistic sense, amplifying danger and consequences from "a catastrophe already waiting to happen." (More detail in [4].) The APZs are not clear because the County has not respected in its zoning the Navy's stipulation of no residences (zero) within a [high] Noise Zone 2 area, (which is arguably also more accident-prone due to near-roof-top trajectories). We now have the reality of over 600 residential homes and businesses in very real harm's way. In 2016 it is useless to argue whose negligence, Navy or County, has allowed these to be placed there, with no comment, dating several years ago. Furthermore, the low-level FCLP touch-and-goes mean that these loud planes fly over neighborhoods at altitudes well under 500 feet, in some areas as low as 200-300 feet. This is commonly frowned upon by the FAA as dangerous, so the conditions around OLF require the Navy to strongly bend (and break) reasonable safety margins once again in order to function at all in this tight Whidbey footprint. The Navy puts civilian and Navy personnel and aircraft at risk

- **Challenging, potentially dangerous atmospheric conditions:** Pilots land and take off often with a tailwind (discouraged for actual carrier landings that should be into the wind, but a common problem at OLF due to the chosen direction of flights using the pre-FCLP-positioned runway). There are also frequent wind events, fog, and major rain events (less frequent in many US war theaters but a fixture at OLF). Mike Welding (T CIV NAS Whidbey Island, N01P) puts it this way: *"For Field Carrier Landing Practice (FCLP) operations at OLF... the pattern the pilots fly are intended to simulate as closely as possible, the approach and landing on an aircraft carrier. Aircraft carriers always have wind flowing over the deck as they sail at speeds that can approach 30 knots. At OLF, if the winds are out of the south, the best approach is from the north.*

In fact, winds at OLFC are predominantly out of the south (7-8 months of the year) causing frequent cancellations of scheduled FCLPs from fall through spring when those winds commonly exceed 5 knots. So, approach and takeoff should be from the north and into the wind. That means Path 14 should be used, but the Navy has indicated, and the Growler-use record has shown, that Path 14 is inadequate and rarely used, so FCLPs

have to be fit into Path 32 on days when the southerly tailwinds are under 5 knots, even though in actual situations jets never land with the wind. Instead, jets landing on carriers come in against a 20 to 35 knot headwind, not a 5-knot tailwind. Even during the summer, when winds are generally negligible, FCLPs are rarely into any headwind.

Hence, wind conditions at OLFC simply are generally the opposite of the carrier landing conditions Mike Welding, Navy Communications staff, describes as real conditions pilots experience with carriers. Although the Navy theoretically restricts FCLPs at OLF to tailwinds of less than 5 knots, Growlers have been observed by civilians on a number of occasions practicing with tailwinds of up to 10 knots and on one occasion, about a 15-knot tailwind, a patently “stretching the limits” maneuver, reported by a Navy pilot. Additionally, these atmospheric cause endless scheduling headaches, present more danger for training flights, and their inconvenient, hard-to-predict nature could cause a dangerous stretching of the acceptable window of safety for flights. All such risk-elevators must be evaluated in the DEIS to comply with NEPS guidelines.

More about tailwinds: If a malfunction were to necessitate a full-stop landing, the ground roll would be significantly longer with a tailwind (1.5% per knot). Because the OLFC landing strip is only 5200 feet long, an aircraft needing to land could continue off the end of the runway. Directly ahead approximately a 1/4 of the runway length is Whidbey Island’s Transit Fuel Depot, and then one more runway length further is the township of populated Coupeville. Loss of control in attempting to land could result in loss of aircraft crew and civilian residences or buildings in the crash zone of the runway. The other runway direction has the community of Admiral’s Cove a runway length away as well. At a high approach speed of 160 to 180 knots (303 ft/sec), an out-of-control jet could easily reach the above-ground Fuel Depot at the Transit Center (also many facilities and residences) in 17 seconds and, if flying low or with pilot ejection, the town of Coupeville in 34 seconds.

More on the Density Altitude problem: It is also worth mentioning that the Navy ignores the vast “**density altitude**” difference between OLF (d.a. 337) and typical Middle East sortie locations (Persian Gulf d.a.2182). Because aircraft behave according to density altitude rather than actual altitude, landing or taking off during high-density altitude conditions heavily influences approach speed, lift, and engine power output, changing length of landing roll and takeoff roll. This means fighters run the risk of hitting a Persian Gulf carrier deck too hard or missing it by flying too high with a pilot trained with the “feel,” despite instrumentation, of the wrong air conditions. On May 29, 2016, for instance, a Growler landing aboard the carrier John C. Stennis in the South China Sea engaged the carrier arresting gear while still in flight.^[5] Result: millions in damage. Yakima training area, for instance, a proposed OLF alternative, has far greater clear area and, while 1400 feet above sea level, has a density altitude of 2963 (around that of the South China Sea). Could training there have prevented the costly Stennis accident? The EIS needs to evaluate such factors, caused by Coupeville OLF training, impinging on pilots' safety in the areas carriers traverse and battle.

A note on the huge accident-risk reduction of an alternate field like Yakima (or others in CA, NV): Risk considerations in an EIS must consider alternative actions that reduce risk.

As an alternative, the Yakima training field (or others in CA, NV), for example, has near zero lethal civilian accident risk, infrastructure accident risk, civilian health risk from Growler noise, or groundwater pollution risk (no aquifer running underneath it like at Coupeville). And such a field's bonus: while higher than sea level, it supports the plane's weight much more typically of the Navy's current war theaters than the OLF, thus adding to the safety of pilots flying missions in the Middle East. Previous vetting of alternatives has overlooked many of these risk-lowering benefits (since, after all, risk was not even evaluated in the DEIS) and it appears that distance from Ault Field is one of Yakima's down-sides due to fuel limitations of the fighters.

The Navy's DEIS puts a 50 mile cap on locating an OLF site but the Growler has a distance range of 1,275 nautical miles <http://planes.axleageeks.com/l/135/Boeing-EA-18G-Growler>; so, allowing 15 miles per circuit of OLFC and 10 circuits equals 150 miles + 25 miles both to and from Ault Field, is 200 miles and well short of 1275. Further, recall from above that the new Growler OLF proposed by the Navy in eastern North Carolina for pilots based in Oceana was 100 miles to the south, or about 10 times the distance between OLF Coupeville and Ault Field. This may or may not be more expensive, but nowhere equivalent to the expense to health and safety born by Coupeville residents from potential crashes and contaminated water.

- **Birdstrikes are a risk:** It is well known that birdstrike risk is vastly increased with low flight. The Navy has shown concern for this accident risk by cutting down hedges and some trees and bushes surrounding OLF to discourage the small animals hunted by hawks. It has also sometimes employed a type of radar to watch for flocks of birds. All of these measures are of limited effectiveness and bird strikes must be included in an EIS. An example is that on January 15, 2008 an EA-6B Prowler was seen on radar heading straight toward a flock of black-bellied plovers and was diverted in time.

According to the reputable Bird Strike Committee (BSC.ORG):

- Over 5,000 bird strikes were reported by the U.S. Air Force in 2006. (The EIS should show the researched number of birdstrikes for the Navy that is no doubt proportionately comparable for Navy flight operations and has a proportionate probability at OLF).

- Waterfowl (31%), gulls (26%), and raptors (17%) represented 74% of the reported bird strikes causing damage to USA civil aircraft, 1990-2006. (The OLF, not with civil but military aircraft, has all three of these bird families in abundance on its approach lanes, even more so on its #14 racetrack path over the water. This means that a birdstrike's effect could develop just as a plane is orienting to the airfield; other strikes on both approaches can come from low flying hawks stalking small ground animals when the plane is at its lowest touch-and-go altitude.)

- **Hypoxia problems increase the risk probability.** According to the *Navy Times* 5/8/16: *"Nothing scares Hornet pilots more than losing oxygen — and it happens all the time."* This article details the hypoxia (low oxygen) problem in the Growlers, which pilots have identified as their *top concern*.

"Naval Air Systems Command is scrambling to implement fixes, but the brass has underplayed the severity and frequency of the danger since it emerged in a February 2016 congressional hearing, according to interviews with pilots and official reports."

"These show a troubling *rise* in the number of breathing and pressurization problems, and that Navy and Marine F/A-18 Hornet and EA-18G Growler aviators view the problematic On-Board Oxygen Generation System as the fleet's most pressing safety issue by far (10 times over). Despite these issues, aviation bosses have not grounded the fleet, a common response to aircraft safety issues."

Rebecca Kheel - 02/04/16 in *The Hill* says that Air and Land Forces Subcommittee chairman Rep. Michael Turner (R-Ohio) asserts that the "symptoms related to depressurization, tissue hypoxia and contaminant intoxication overlap."

Despite five years of watching the F-18 oxygen systems closely, however, the Navy still doesn't know *why* the air supply is failing, Manazir admitted. "It's like chasing a ghost," he said. "We can't figure out, because the monitoring devices that do this are not on the airplane," whether a given incident results from too little oxygen, too much oxygen, excessive carbon monoxide, or some kind of toxin leaking into the air.

He is concerned that in 2006 the 100,000 flight hour rate of hypoxia incidents was 3.66 in 2006, 5.5 in 2010-11, and then mushroomed to 43.6 in 2014-15. And Meghan Myers in the May 8, 2016 *Navy Times* affirms tht 2016 shows no progress in abating this problem, with 2016 on track to top these numbers.

Alarminglly, Turner says "the cause of most physiological episodes is not readily apparent during flight," and "reconstruction of the flight event is difficult with potential causal factors not always readily apparent during post-flight debrief and examination." Given all the other compounding risk factors mentioned here for OLF operations, hypoxia-induced, background mind-dulling can leave airmen without the awareness edge to cope with the heightened safety challenges at the airfield.

It is not possible to ignore the hypoxia problem in an EIS. It is perhaps a background contributor to several of the 22 Growler and F/A-18E/F crashes since 2002 and certainly a factor in hundreds of "incidents" since 2006, but may have been downplayed or misunderstood (See. Turner quote above), in many accident descriptions in that they only create a background cause of pilot error through causing misjudgment, disorientation, fatigue, and distraction.

- **Accident statistics generate a risk probability:** The accident risk evaluation must include probability predictions related to the statistics of crashes. It is challenging to choose which statistical factors best predict the likelihood of Growler accidents. One impressive statistic is that in the last 25 years the ratio of F-18 crashes to Prowler crashes is 13:1. The F-18 is a faster and more powerful airframe and more can go wrong in flight.^[6] But not all F-18s are alike; there was a considerable re-design for the F-18E/Fs that the Growlers are a copy of but with electronic equipment. Some may argue

that redesign made them more crash safe. If we look at accidents for just these: crash records can be spotty on information but a good estimate is 22 crashes of these F-18s since 2002 of which 10 were midair collisions in training and 12 were a random mix of pilot error and mechanical failures that occurred in the air as well as during takeoffs and landings, often with ejections.[7] A ratio of crashes per the number of flight ops done with those models would help illuminate the crash risk at OLF. Midair collisions are less likely in FCLP training than in battle simulations but the other 12 crashes of these type had circumstances that could happen at or around OLF during FCLPs. It is a daunting task to gather enough data to consider the accident risk in relation to hours of flight training operations, but this is exactly what the writers of the EIS must consider to evaluate crash-risk at OLF. Computing even the primitive statistic of .84 crashes/year worldwide of this aircraft type tells us there is not a near-zero probability of a crash at OLF, given the crash-accentuating factors there. Of course, careful examination of the circumstances of each crash would help refine the probability estimates for OLF. Yes, the OLF has only suffered one catastrophic crash, but many circumstances present in the other accidents are even more pronounced in OLF's conditions and will be vastly amplified following the 6-fold increase in the number of flight ops predicted in the DEIS.

Another approach to crash-probability would be to look at all accidents since 2000 of fighters of all models flying in non-paired-combat-simulation training. Yet another would be to look at all accidents of fighters of all types flying FCLP training. These computations and data are beyond this writer's time and resources to gather but this information should be researched and used by the EIS writers.

Yet another way to get a grip on accident risk: The All-Navy Class A Mishap Rate over the past ten years is 1.27 mishaps per 100,000 hours flown. What percent of these crashes can be ascertained? At the flight-op rates projected in the DEIS, this translates to 3-4 "mishaps" over the next 10 years, at least one of which could be crash disasters. Again using the proportion of "mishaps" that are crash disasters throughout the Navy could provide yet another estimate of probability of actual crashes.

Finally, this statistic needs to be factored in: already there have been 24,000 operations at OLF with one accident and an on-ground incident recently involving a pressure problem while preparing for takeoff. This translates to about 3 "mishaps" per 35,000 flight operations per year.

It is the Navy's obligation to choose the best estimation technique, of which all of the above are examples, for crash disaster probabilities, then present it in detail in the DEIS.

Note on elevated probabilities: It is important to keep in mind that the probabilities, regardless of which of these ways they are estimated above, are elevated by a) some of the unique atmospheric and scheduling challenges of OLF discussed above and b) by the sixfold increase of operations presented as a preferred alternative. A sixfold increase in operations can easily create a higher-than-six-fold increase in crash potential due to the complicated interaction of factors like tight scheduling, support staff fatigue, more crowded airspace, cutting the safety window too closely for weather events, etc. In other words, it is not "if there is a crash disaster at OLF" but "when," and the EIS, all about "impacts," is legally required to

describe the damage to life and property, and the disruption that follows, for the worst reasonably probable accident.

PFOS well contamination connection: There is an important causal connection between crash probability and the probability of water-table contamination by PFOS chemicals. Plane incidents cause PFOS to be applied on the ground in large quantities. Any threatening plane *mishap* may prompt the use of toxic PFOS foam (still stored at OLF and /Ault Field) to prevent a fire. Because a water table feeding the Coupeville water supply is right underneath the OLF, the probability of PFOS contamination of the water table by its use on the field (or in the civilian vicinity) should also be calculated. (PFOS chemicals have already entered the water table from past activity so the probability is not zero.) This must be done by multiplying the probability of a fire threatening mishap at OLF by the probability that PFOS chemicals sprayed on the field will penetrate to the water table and contaminate it. This is a definite topic for the DEIS that was left out entirely.

The Navy Draft EIS is deficient in numerous areas as described in the comments above and by others, and is inadequate to support a decision. Council on Environmental Quality (CEQ) Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." <https://www.law.cornell.edu/cfr/text/40/part-1502>

FOOTNOTES

[1] A calculation of the need for a whopping, schedule-crowding 183 training days per year, i.e., 1/2 year. This calculation is for the projected 6-fold increase of flight operations proposed in the DEIS.

Growler Squadrons currently have five Growlers each and the DEIS proposes adding either two or three Growlers to each VAQ squadron; meaning a squadron would then deploy with seven or eight planes. A pilot typically requires, on average, 150 "bounces" (a simulated carrier landing) to become proficient at one of the most challenging tasks in aviation. For a squadron of 8 planes, this totals 1200 bounces and is counted as 2400 Flight Operations in the DEIS. The DEIS further explains that a typical FCLP lasts 45 minutes with three to five aircraft participating the training.

Using an average of four planes per exercise, 45 minutes would permit 8-10 FCLP loops per session, or a total of 32 to 40 FCLP landings and takeoffs. If there are few minutes between sessions, one could assume a session occupies an hour, therefore, the number of sessions required to train a squadron equals the number of hours of FCLP required. This totals about 24 hours for a 5-jet squadron and 37.5 hours for an 8-jet squadron. At three training sessions per day, each day has 96 bounces.

The training scenario outlined above would occur for 8-10 days over a two-week period to prepare all pilots in a five-jet squadron for deployment. Alternative 1A in the DEIS would generate 183 days of training using the scenario described above, approximately two weeks of training followed by two weeks of no activity, on average, in order to accommodate the larger squadrons.

[2] "For purposes of analysis, an estimated 25,000 to 30,000-acre area is being considered for each site location alternative."

<http://web.archive.org/web/20090712085059/http://www.olfeis.com/about.aspx>

[3] A 1987 report recommended alternatives to OLF be investigated by the Navy because of the encroachment issue. Instead, to putatively “resolve” the encroachment matter and iterative need to get around issuing temporary waivers, Navy administrators dubiously issued a permanent waiver for OLF.

[4] The Navy’s 2005 Air Installation Compatible Use Zones (AICUZ) analysis concludes that the area surrounding OLF is “largely rural.” That is a contrived mischaracterization. The AICUZ stipulates that within the 65-dB noise contour (Noise Zone 2) there should be no residences and only very restrictive other uses. (Remember, this zone 2 noise contour is a higher accident risk in that jets are close overhead and are undergoing the delicate adjustments of takeoff and landing.) Yet within that noise contour (+accident risk-zone) are over 1000 residences, a heavily used County recycle center, an Olympic-sized outdoor swimming pool at Admirals Cove, a new federally funded transit facility with above ground fuel storage tanks, Island County’s Rhododendron Park for youth soccer and softball events, a newly constructed animal shelter, and a heavily used dog park. And last but not least, there was a very nice but economically failing motel that has just recently been sadly purchased as a residence for homeless youngsters, and it lies directly adjacent to the dangerous takeoff area, one of the loudest (most accident risk) portions of the racetrack (110-120 dBA).

[5] <http://www.military.com/daily-news/2016/06/01/navy-growler-damaged-during-carrier-landing-in-south-china-sea.html>

[6] <http://citizensofebeysreserve.com/blog/growler-jets-36-times-more-likely-to-crash-than-prowler-jets/>

[7] [https://en.wikipedia.org/wiki/List_of_accidents_and_incidents_involving_military_aircraft_\(2000-09\)](https://en.wikipedia.org/wiki/List_of_accidents_and_incidents_involving_military_aircraft_(2000-09))

[https://en.wikipedia.org/wiki/List_of_accidents_and_incidents_involving_military_aircraft_\(2010%E2%80%93present\)](https://en.wikipedia.org/wiki/List_of_accidents_and_incidents_involving_military_aircraft_(2010%E2%80%93present))

[if !supportFootnotes]

[endif]

[if !supportFootnotes][1][endif] NAS Whidbey Island Complex Growler DEIS, Volume 1 November 2016

[if !supportFootnotes][2][endif] Investigation of Perfluorinated Compounds in Drinking Water, Sampling and Analysis Plan, Naval Air Station Whidbey Island, Oak Harbor, Washington, January 2017

[if !supportFootnotes][3][endif] SAMPLING AND ANALYSIS PLAN SITE INSPECTION FOR PERFLUORINATED COMPOUNDS IN GROUNDWATER, OUTLYING LAND FIELD COUEVILLE, NAS WHIDBEY ISLAND, COUEVILLE, WASHINGTON, JANUARY 2017, Page 30¹

Coupeville, WA 98239

SAFETY RISK OF COMPOSITE MATERIALS USED IN EA18G- GROWLERS MUST BE ASSESSED PRIOR TO ADDING MORE JETS. See: AFRL-SA-WP-SR-2015-0011 Composit Material Hazard Assessment Crash Sites, updated 2015 by Major Christopher Edwards, Captain Timothy Batten, and Major Jon Black This report should be considered in the DEIS as it pertains to Growlers and possible crash risks at OLFC and the surrounding areas. Health risks seem to be high and crash protocols followed closely. A recent crash of a F/A-18D jet crashed in San Diego on approach to Miramar, killed 3 on the ground (the pilot ejected and is fine). A lot of the news reports noted that ~20 homes were evacuated due to 'toxic chemicals'. What sort of chemicals would you be worried about? From the angry toxicologist: "December 2008: "Beyond the physical hazards (things under pressure like hydraulics, O2 canisters,...etc), there's all kinds of stuff to worry about like fuel, oils, hydraulic fluids, beryllium, lithium, chromium, mercury, and possibly radioactive compounds. But the biggest hazard is simply the burning of Advanced Composite Materials (ACM). According to the military, aircraft can contain anywhere from about 175-33,000 lbs of ACM. Upon burning, a lot of these Advanced Composite Materials release lots of carbon monoxide (obviously), nitrous oxides, sulfur dioxide, and hydrogen cyanide. An air craft explosion could produce these chemicals above levels that would kill you in short order as long as the temp was above 300 deg F. The F-18 has a lot of Graphite-epoxy ACM. The Clean-up crew would have to think about all the exotic chemicals abounding but would not have to worry so much about the CO/NO/SO/CN issues. They would, however, have to worry about all the respirable fibers that may be floating around due to the ACM. Particularly troubling are the boron-epoxies since they are able to penetrate protection to some degree. These fibers cause long-lasting harm if inhaled in sufficient amounts." Also, Composit Materials and Fire Threats should be addressed since these materials are so flammable. The DEIS should address these issues prior to bringing more jets to OLFC, as crash risk potential rises with more jets and operations.

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 17.a. Hazardous Materials and Waste Impacts
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Portland, OR 97223

We regularly visit Coupeville and had planned to spend more time in this beautiful, historic city with our five young children, and possibly relocate to Coupeville permanently. We have owned a home in downtown for ten years, on [REDACTED] Street, and have considered moving there permanently. At a minimum we are regular visitors, and potentially permanent residents. We certainly appreciate the role of our US Navy, and understand the need for training and readiness. Our biggest concern is for the impact on what has already been deemed a Historic Preserve and how the increased presence of jets at such low altitudes will impact the overall well-being of a historic preserve. Further, the potential frequency of flights could have substantial impacts on the livability on the residents, driving down home prices (reduced property taxes), reduced visitors (decreased sales taxes, lodging taxes), and negative impacts on the festivals that regularly occur in the area. Finally, as a father of five young kids who are entering elementary school, if the jet noise disrupts class instruction at the local schools, I would no longer consider enrolling my kids in the public schools, and would refrain from moving to Coupeville entirely. It would be a deal killer. With the option to fly out of the other fields at the NAS, I ask that the Navy kindly consider optimizing the resources on the base rather than the outlying field adjacent to the historic reserve. Thank you for the opportunity to submit our concerns. [REDACTED]

1.a. Thank You
12.h. Tourism
12.j. Property Values
12.n. Quality of Life
2.n. Alternatives Considered But Eliminated
4.o. Classroom Learning Interference
8.f. Cultural Landscape and Impacts to Ebey's Landing National
Historical Reserve



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name [REDACTED]

2. Organization/Affiliation citizen of Whidbey Island

3. Address [REDACTED] Langley WA 98260

4. E-mail _____

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

The impact of noise seems minimized. As an example, Deception Pass State Park — one of the most popular parks in the state, an important wildlife habitat, a draw to the area that provides state and local economic benefits. This is not mentioned! Holding a conversation or observing bird life in the park is impossible already when the Growlers are flying. Camping, visitors find, is much less pleasant than expected. A beautiful area is essentially

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 19.g. Cumulative Impacts of Noise
- 7.i. Deception Pass State Park and Other State Parks

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

lost to the Growlers.
Being acclimated to the current noise level does not make it harmless. Figures that refer only to the increase in noise are an insult to the visitors & residents alike.

The EIS needs to cover all areas and reflect the total - previous and proposed - impact.

For more information, please visit the project website at whidbeyeis.com

Please print
Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name _____

2. Last Name _____

3. Organization/Affiliation _____

4. City, State, ZIP Lopez Island WA, 98261

5. E-mail _____

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.

Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).

2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.

Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.

3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.

Action: Redo the noise simulation using the more recent Advanced Acoustic Model.

4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.

Action: Noise levels should only be averaged over active flying days.

5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.

Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."

6. The Draft includes some independent noise measurements and ignores others.

Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”




Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:
EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name 
2. Last Name 
3. Organization/Affiliation _____
4. City, State, ZIP Lopez Island, WA 98261
5. E-mail 

- 6. Please check here if you would NOT like to be on the mailing list

- 7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

Port Townsend, WA 98368

To: EA-18G EIS Project Manager Naval Facilities Engineering Command (NAVFAC) Atlantic – Attn: Code EV21/SS 6506 Hampton Blvd. Norfolk, VA 23508 Dear Sir/Madam, Thank you for extending the comment period to February 24, 2017, as having four major public processes open over the holidays made it difficult to read, comprehend, and prepare comments in a timely way. Below are my comments. 1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its “study area” is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects. 2. Impacts to cultural and historic sites are not adequately considered. The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx). The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as “normally unacceptable” and above 75 as being “unacceptable.” (<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/>) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). 3. Piecemealing projects to avoid analyzing cumulative effects is illegal. The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions. Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. The number of Growler flights at Outlying Field (OLF) Coupeville alone went from 3,200 per year to a proposed 35,100 in 2017. That’s more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are “no significant impacts.” The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) “...does not allow an approach that would permit dividing a project into multiple ‘actions,’ each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.” The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.c. Segmentation and Connected Actions
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.f. Endangered Species Impact Analysis Adequacy
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property
- 19.a. Scope of Cumulative Analysis
- 19.b. Revised Cumulative Impacts Analysis
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 19.h. Cumulative Impacts on Biological Resources
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.e. Public Involvement Process
- 2.h. Next Steps
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.d. Arrivals and Departures
- 4.a. General Noise Modeling
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.i. Other Noise Metrics Not Currently in Analysis
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 8.a. Cultural Resources Area of Potential Effect
- 8.c. Noise and Vibration Impacts to Cultural Resources
- 8.j. City of Port Townsend Cultural Resources

justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability. 4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water. 5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is "turning out fully trained, combat-ready Electronic Attack crews." 6. The current comment period on a Draft EIS should not be the last chance the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts. 7. There are no alternatives proposed in this DEIS that would reduce noise. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (<https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities. 8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative. 9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010 with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities

contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula. 10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas. 11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense. 12. Commercial airport noise standards should not apply to military jets because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest buzz with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public. 13. The Navy's noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers. 14. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally

indefensible.

(<https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>) 15. The Navy describes its activities using the term “event,” but does not define it. Therefore, the time, duration, and number of jets in a single “event” remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public’s ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them. 16. New information that was not disclosed in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service’s draft permit, viewable at:

<https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with “...opening day and associated opening weekend of Washington State’s Big Game Hunting Season for use of rifle/guns.” While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control. 17. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: “Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL.” This guidance further states, “Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.” If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed. 18. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled “Representative Sound Levels for Growler Aircraft in Level Flight,” on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets. 19. No mitigation for schools: The DEIS states that in the case of local schools, no mitigation measures for any of the 3

proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to not allow a comment period on the Final EIS would be unlawful. 20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period. 21. Crash potential is higher: With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable. 22. Contamination of drinking water in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant. 23. Navy knew about contamination in advance: It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of "identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam]." Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: "Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e)." The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word "perfluoroalkyl" or "PFAS" is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals. (<https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf>) 24. No mention of contaminated soil is found in the DEIS: It confines its

discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water.

25. Impacts to wildlife have been piecemealed: Because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy's study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual "events," which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process. Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

26. Pages of boilerplate language do not constitute analysis of impacts to wildlife: Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is "greatest during flight operations." However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is "highly unlikely," largely because "no suitable habitat is present." This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly likely that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area.

27. Old research cited but new research not: In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (<http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract>) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds," (<http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html>) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the best available science. This DEIS fails that test. Thank you for considering these comments. Sincerely, [REDACTED] Port Townsend, WA



Public Meeting Comment Form

Thank you for attending the public meeting on the Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) Provide written comments at today's public meeting; (2) Speak with the stenographer, who will record your comments; (3) Submit your comments on the project website at www.whidbeyeis.com; or (4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name [REDACTED]

2. Organization/Affiliation _____

3. Address [REDACTED] [REDACTED] Port Townsend cut

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

We must consider the impact on the health of all the inhabitants of this area from static and electromagnetic impacts. There are numerous studies linking increased rates of cancer, leukemia, and other health issues to increased electromagnetic exposure. Plus the financial cost - this money could be used for constructing net destruction. Simulators technology has long been used in both commercial & military training - we don't need to destroy the health of people and the environment to do train our troops. ~~please use the power of the military to protect the troops with the ongoing war on terrorism.~~

Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 19.d. Electronic Warfare
- 2.n. Alternatives Considered But Eliminated

1.a. Thank You

Freeland, WA 98249

I chose to live on Whidbey Island for its peaceful beauty. Adding Grouse flights over the Island will greatly negatively affect both the peace and beauty of this place. I urge you to reconsider this course of action.

1.a. Thank You

Freeland, WA 98249

I chose to live on Whidbey Island for its peaceful beauty. Adding Growler flights over the Island will greatly negatively affect both the peace and beauty of this place. I urge you to reconsider this course of action.



Public Meeting Comment Form

1.a. Thank You
12.j. Property Values

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

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1. Name [REDACTED]

2. Organization/Affiliation Retired

3. Address [REDACTED] Couperville 98839

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

I live in the Pheasant farm community (50 homes)
I'm concerned about the increase in flights at
Outlying field. Now flights go directly over our homes
If the number of flights were to increase from
6000 to 35000 it would be unbearable noise wise.
Property values would plummet. Quality of life would
diminish.

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Coupeville, WA 98239

- 1.a. Thank You
- 5.a. Accident Potential Zones

My home is within three miles from the Clear and accident potential zones. We have been here 20years and we Are in our mid seventies. What does this Section 4.3 mean for us?

1.a. Thank You

Oak Harbor, WA 98277

I believe the training at Coupeville is critical to our aircrews proficiency when operating around the ship. I believe the military presence in Whidbey is essential to our economy by providing jobs and safety for Oak Harbor and surrounding areas. Go Navy!



Public Meeting Comment Form

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- 1. Name [REDACTED]
- 2. Organization/Affiliation Fidalgo Island Resident
- 3. Address [REDACTED]
- 4. E-mail [REDACTED]
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

I was shocked to see how much increased noise we and our orcas and dolphins will be submitted to. Is there any way to dampen the sound? Surely you can do something. Quality of life for us, and protection of our marine mammals should be high on your list of priorities. Put your engineers to work on a way to dampen the horrifying noise you will be creating. We will all be eternally grateful if you work on this issue.

Please print • Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 12.n. Quality of Life
- 4.t. Noise Mitigation

Lopez Island, WA 98261

Ever since the introduction of the EA-18G to to Airfield Operations at NAS Whidbey Island, I've had to live with the intolerable noise they make. THEY ARE LOUD! They are especially loud when they come in level from their base on Whidbey, and then when they get to the center of the island, they hit the throttle and do a quick climb at full bore. That little trick literally shakes by house. I've submitted complaints about that via email, but to no avail. The unabated noise attack by these EA-18G Growlers is deafening and dangerous. Their training operations need to be moved to facilities more appropriate for their effects on surrounding population.

1.a. Thank You

2.n. Alternatives Considered But Eliminated

3.g. Field Carrier Landing Practice Evolutions and High Tempo

Anacortes, WA 98221

This is the most egregiously WRONG exercise of police state authority I have seen. Are you going to pay to have my house sound proofed? The environmental preliminary study is a joke. Everything is ok. No it is not. Why do I have to be subjected to noise levels that cause my heart to skip a beat, every time one of these airplanes decides to fly directly over my home on 7th and M street in Old Town Anacortes. If landing on an aircraft carrier requires such precision perhaps the pilots can be trained to fly over unpopulated areas of Puget Sound and they can terrorize the Orcas that are endangered and near extinction no doubt due to the noise pollution and terror that the USN has decided is appropriate. Why not locate this base on Attu where there would be no conflicts. Ships routinely go by there and could easily resupply you with all of your needs. Shut down the base and go away. Donald Trump intends to reign in the out of control military spending so get used to it. If we ever have an actual war again then open the base, start the draft and get busy, what you are doing now is a waste of money and is just a training school for commercial airline pilots. Do it in the desert or in Guam or anyplace but here! Continuous war is not what life or liberty is about. Respectfully, [REDACTED] American Patriot US Taxpayer

1.a. Thank You

2.n. Alternatives Considered But Eliminated

Anacortes, WA 98221

The draft environmental statement is one sided and biased to be almost useless. The existing noise pollution has caused me to consider selling my house in Anacortes and finding place where Navy airplanes to not buzz populated areas for no apparent reason. It is a form of terrorism when you fly over populated areas.

- 1.a. Thank You
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act

- 1.a. Thank You
- 3.a. Aircraft Operations

Anacortes, WA 98221

Absolutely opposed to all navy flights over Fidalgo Island. There is so much open water over this area and the airplanes that are doing training flights are very maneuverable it would be very easy to keep the flight paths away from populated areas. It makes no sense from a public relations perspective to fly over residents houses. Furthermore during several military police actions done by the US Government routinely loud jets are flown over enemy cities to intimidate and cause fear in civilians of those enemy countries. This is what it is like for US taxpayers when you fly over our houses. Please have some respect for the people who pay your wages and benefits. Respectfully, [REDACTED]
[REDACTED] Anacortes, WA 98221

Seattle, WA 98119

1.a. Thank You
2.I. No Action Alternative
7.d. Recreation and Wilderness Analysis and Study Area

Already the Navy overflights above Olympic Park and its beaches causes nasty noise. My wife and I were disturbed for an hour last summer by repeated flights near the beaches. The new Navy/USFS plan to increase search activities over the west side of Olympic NF will greatly increase noise. Addition of 36 more jets will only make it worse. We want the NO Action Alternative.

Coupeville, WA 98239

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP). When OLF was first developed, Whidbey Island was a very rural area with a small full time population. Since we bought our property in 1987 the number of permanent residents in our development alone has increased from about 12 to about 65 full time residents. That kind of growth is typical on Central Whidbey. Rather than moving additional practice flights to OLF and threatening the health and economy of our region, the Navy should be looking for alternate sites to conduct flight carrier land practice.

21 February 2017

1.a. Thank You
12.f. Economic Hardship and Impacts
12.h. Tourism

EA-18G Growler EIS Project Manager
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard
Norfolk, VA 23508
Attn: Code EV21/SS


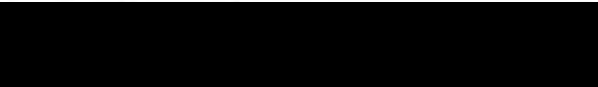
The Coupeville Arts Center dba Pacific NorthWest Art School, a not for profit, has been offering exceptional visual arts education for thirty years now. Our students come from all over the world, from every state in the United States and abroad. One of the reasons our 500 plus students and 50 person faculty come here each year is the quiet rural landscape and the spectacular scenery at every turn. Another attraction is the historic significance of Coupeville.

Our photographers and painters frequent Central Whidbey and most specifically, Ebey's Landing National Historic Reserve in search of inspiration and the basis for their artwork. If flights were to increase as projected in scenario A of the EIS this would be catastrophic to our students and in turn our local economy. We often hear "there is no place like this anywhere else".

These 500 plus students and 50 faculty members (coming from Portugal, Israel, Australia, the Netherlands, Canada and the United States) pour \$300,000 into our local economy in the form of transportation, lodging, dining and retail spending. This is in addition to the tuition they pay for their workshops. This translates to 1800 room nights and \$5500 meals plus Whidbey Sea Tac Shuttle bookings and retail spending. This I believe is significant to our local economy. Coupeville is a community of approximately 2,000 residents. So to put it into perspective, the population of Coupeville swells by 25% a year due to the art school.

We have a national and international reputation and pride ourselves on offering not only great instruction, but a unique and one of a kind experience. We would not be able to offer this if flights were to increase. I truly am not sure if we would be able to continue to operate as we do.

We are requesting a reduction rather than an increase in flights and a reduction in the use of OLF as a primary training ground for the Growler due to economic, quality of life and aesthetic concerns.



Member, Board of Directors
Pacific Northwest Art School

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name _____

2. Last Name _____

3. Organization/Affiliation Citizen/Landowner

4. City, State, ZIP _____

5. E-mail _____

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.a. Regional Land Use and Community Character
- 7.h. San Juan Islands National Monument

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

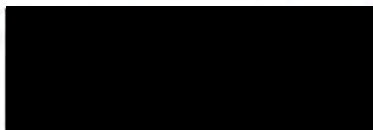
- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion."

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

I look forward to reviewing the analysis and data requested in these comments.

I live full-time in the San Juan Islands, known for their tranquility. We worked hard to ban jet ski use. More jets overhead would have the same disruptive effect, destroying the peace and quiet we treasure here.





Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. *The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.*

1. Name [REDACTED]

2. Organization/Affiliation _____

3. Address [REDACTED]

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

*First, I object to the open house format of this meeting. The navy should be brave enough to host a public meeting/hearing so that the community can hear all questions answers and concerns.
Second, I do not support increased flights at all - the no action alternative, or better yet a REDUCTION in activity.*

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 2.e. Public Involvement Process
- 2.I. No Action Alternative

Freeland, WA 98249

The facts show that increasing the Growler programs will also increase the damaging environmental and health consequences that are already a huge problem for the people of Whidbey Island, the Olympic Peninsula and San Juan areas. Why when there are safer areas for the Navy to practice in do you want to continue to harm and ignore the facts. Just the toxic effects from exhaust, over populated areas should be enough to stop this unnecessary proposal. The noise levels are intensely harmful. People's homes and schools should be protected not sacrificed to war games. The research showing great harm is there. Become the Navy that cares, not the Navy that ignores and harms the citizens who you are supposed to protect.

1.a. Thank You

4.o. Classroom Learning Interference

4.r. Nonauditory Health Effects

6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)

Greenbank, WA 98253

There must be alternatives to basing Growlers at NASWI, but I don't see that that scenario has been evaluated in the DEIS. The National Environmental Policy Act has mandatory requirements to fully analyze off-Whidbey training options for conducting touch and go practice. Also, no measurements of noise were taken in communities – only computer modeling that averaged periods of noise with long periods of silence. That modeling does not accurately reflect the noise that will be affecting the citizens of Coupeville and surrounding areas. The DEIS also does not address the effect of noise on birds and other wildlife. I see no documentation of scientific studies that demonstrate that birds and wildlife are not and will not be adversely affected. The 1,500 page DEIS (as opposed to the NEPA recommended 300 pages) is unreadable and short on data and facts. It has not sufficiently addressed the problems.

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.k. Range of Alternatives
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Greenbank, WA 98253

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- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

8 December 2016

1.a. Thank You

EA-18G Growler EIS Project Manager
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard
Norfolk, Virginia 23508

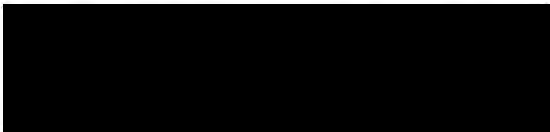
Attn: Code EV21/SS

I'm writing today, as I hear the sound of Growlers overhead. I'm not writing to complain, quite the opposite. I'm writing to thank those pilots, in the sky above, for their exhausting training regimen and dedication to the defense of our country.

I live on Lopez Island, Washington and do indeed enjoy the tranquil lifestyle. However, I am not naive enough to believe that I am either entitled to this lifestyle or that it comes without cost. I am blessed to have been born in America and consider my citizenship a privilege. I also realize that all of the freedoms and privileges I enjoy would not have been possible without the guaranteed protection of our United States military.

Yesterday, 7 December 2016, I attended the Open House Public Meeting and spoke with four very fine Naval Officers (two Growler pilots). They were courteous, well prepared and articulate. You were well represented here on Lopez. I do wish to apologize, however, for those Lopezians who badgered your personnel and were close-minded about the Growler mission and the real need for it.

I tried to speak with the Executive Officer, but he was extremely busy conversing with other meeting attendees. I wanted to (and I hope you will) convey to him and to all of the pilots and support personnel, my appreciation for their dedicated service on behalf of all American citizens.



Veteran - USAF: 1969-1973

Greenbank, WA 98253

I am against continuing and expanding EA-18G "Growler" operations at the Naval Air Station on Whidbey Island. There must be alternatives to basing Growlers at NASWI, but I don't see that that scenario has been evaluated in your DEIS. The National Environmental Policy Act has mandatory requirements to fully analyze off-Whidbey training options for conducting touch and go practice. Also, no measurements of noise were taken in communities – only computer modeling that averaged periods of noise with long periods of silence. That modeling does not accurately reflect the noise that will be affecting the citizens of Coupeville and surrounding areas. It is definitely NOT ACCEPTABLE that increased Growler operations will cause "between 4-5 disruptions per hour" in Coupeville schools. What parent would want to enroll their children in schools under those conditions? None that I know of. The DEIS also does not address the effect of noise on birds and other wildlife. I see no documentation of scientific studies that demonstrate that birds and wildlife are not and will not be adversely affected. I do not currently live in an area where I hear the jet noise, but I am appalled by your DEIS and plans to expand. You will destroy the town of Coupeville. You have already disrupted the lives of many people living on Whidbey and damaged the tranquility of Deception Pass State Park, the crown jewel of our state park system, with your operations. Your 1,500 page DEIS (as opposed to the NEPA recommended 300 pages) is unreadable and short on data and facts. You have not sufficiently addressed the problems.

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.k. Range of Alternatives
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.o. Classroom Learning Interference
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Coupeville, WA 98239

I am responding to the proposed increase in EA-18G training activities as outlined in the Draft Whidbey Environmental Impact Statement. My major four concerns are the following: 1. Increase from 6,100 to 35,100 operations/year at OLF Coupeville (EIS Preferred Alternative) I want the final EIS to include geographic alternatives to increasing EA-18G training entirely at Ault Field and OLF Coupeville. Please include both environmental and economic data for all possible alternatives. 2. Real Rather Than Modeled Decibels (draft EIS levels inconsistent with Federal NPS study) I want the final EIS to be re-written using actual rather than modeled data, to more accurately predict economic and environmental impact of increased EA-18G training on local communities. 3. Water Quality Assurance (Environmental Hazards not included in draft EIS) I want assurances included in the final EIS that all water contaminants at Ault Field and OLF Coupeville are below EPA thresholds (including perflourooctane sulfonate and perflourooctanoic acid below 70 ppt) prior to any increase in EA-18G numbers. 4. Accident Potential Understood; Residents Compensated (EIS Incomplete) I want the final EIS to propose an Accident Potential Zone around the OLF, with adequate compensation to Local Governments for all necessary downzoning prior to any operational increases at OLF Coupeville. I look forward to a final document which addresses my points, and any additional input from citizens "significantly impacted" (to quote the draft EIS) by the proposed changes. Sincerely, [REDACTED]

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 2.k. Range of Alternatives
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 5.a. Accident Potential Zones

Coupeville, WA 98239

I am responding to the proposed increase in EA-18G training activities as outlined in the Draft Whidbey Environmental Impact Statement. My major four concerns are the following: 1. Increase from 6,100 to 35,100 operations/year at OLF Coupeville (EIS Preferred Alternative) I want the final EIS to include geographic alternatives to increasing EA-18G training entirely at Ault Field and OLF Coupeville. Please include both environmental and economic data for all possible alternatives. 2. Real Rather Than Modeled Decibels (draft EIS levels inconsistent with Federal NPS study) I want the final EIS to be re-written using actual rather than modeled data, to more accurately predict economic and environmental impact of increased EA-18G training on local communities. 3. Water Quality Assurance (Environmental Hazards not included in draft EIS) I want assurances included in the final EIS that all water contaminants at Ault Field and OLF Coupeville are below EPA thresholds (including perflourooctane sulfonate and perfluorooctanoic acid below 70 ppt) prior to any increase in EA-18G numbers. 4. Accident Potential Understood; Residents Compensated (EIS Incomplete) I want the final EIS to propose an Accident Potential Zone around the OLF, with adequate compensation to Local Governments for all necessary downzoning prior to any operational increases at OLF Coupeville. I look forward to a final document which addresses my points, and any additional input from citizens "significantly impacted" (to quote the draft EIS) by the proposed changes. Sincerely, [REDACTED]

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 2.k. Range of Alternatives
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 5.a. Accident Potential Zones

- 1.a. Thank You
- 2.k. Range of Alternatives

Coupeville, WA 98239

TO: EA-18G EIS Project Manager SUB: 621 "Alternatives" Comments during Public Scoping not yet Addressed in Draft EIS I am responding to the required Draft Whidbey Environmental Impact Statement to allow increased EA-18G training activities. I have read through the document and appreciate the volume of data presented to comply with all federal EIS requirements. The Draft, however, needs completion and I have an area of concern, as follows: The Draft EIS identifies 9 scenarios which are thoroughly analyzed for public health, economic, environmental, and other concerns. All 9 scenarios rely on 100% of Operations being conducted at Ault Field and OLF Coupeville. Using your own data (NASWI Complex Growler EIS, Volume 1 p1-19) you received 621 Public Comments during the Public Scoping (2013-2015) requesting analysis of Alternatives to 100% of Operations being conducted solely at Ault Filed and OLF Coupeville. This was the fourth highest area of concern (after 1785 comments for "Noise," 914 comments for "Human Health," and 806 comments for "Socioeconomic") of the 24 topics identified during the two public scoping efforts. Although the Draft EIS identifies and then dismisses 11 Alternatives to Operations being conducted solely at Ault Field and OLF Coupeville none of the 11 are thoroughly analyzed for public health, economic, environmental, and other impacts. In fact the discussion of these 11 additional Alternatives takes up 4 of the 1512* pages in the document (p2-15 - p2-19), while the analysis of the remaining 9 Alternatives, solely using Ault Field and the OLF, takes up 1508 pages... The Draft EIS will not be complete until all alternatives to 100% of Operations being conducted at Ault Field and OLF Coupeville are analyzed for public health, economic, environmental, and other impacts, as requested 621 times by the local communities during Public Scoping. I look forward to a final EIS which addresses this area of concern to 621 citizens, who are all going to be "significantly impacted" (to quote the draft EIS) by the proposed changes. Thank you for this opportunity to comment. Sincerely, [REDACTED]

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

We strongly oppose the proposed plan to bring additional Growlers to OLF Coupeville. Testing of wells in the area have indicated contaminated water due to use of fire retardant. We encourage the military to place the planes elsewhere to avoid potential future water contamination.

1.a. Thank You

Coupeville, WA 98239

We strongly oppose the proposed plan to bring more Growlers to OLF Coueville. Additional noise in our community will be detrimental to our health, our well being, our children and the use of our property.

Coupeville, WA 98239

"I am responding to the proposed increase in EA-18G training activities as outlined in the Draft Whidbey Environmental Impact Statement. My major four concerns are the following: 1. Increase from 6,100 to 35,100 operations/year at OLF Coupeville (EIS Preferred Alternative) I want the final EIS to include geographic alternatives to increasing EA-18G training entirely at Ault Field and OLF Coupeville. Please include both environmental and economic data for all possible alternatives. 2. Real Rather Than Modeled Decibels (draft EIS levels inconsistent with Federal NPS study) I want the final EIS to be re-written using actual rather than modeled data, to more accurately predict economic and environmental impact of increased EA-18G training on local communities. 3. Water Quality Assurance (Environmental Hazards not included in draft EIS) I want assurances included in the final EIS that all water contaminants at Ault Field and OLF Coupeville are below EPA thresholds (including perflourooctane sulfonate and perfluorooctanoic acid below 70 ppt) prior to any increase in EA-18G numbers. 4. Accident Potential Understood; Residents Compensated (EIS Incomplete) I want the final EIS to propose an Accident Potential Zone around the OLF, with adequate compensation to Local Governments for all necessary downzoning prior to any operational increases at OLF Coupeville. I look forward to a final document which addresses my points, and any additional input from citizens "significantly impacted" (to quote the draft EIS) by the proposed changes."

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 2.k. Range of Alternatives
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 5.a. Accident Potential Zones

Coupeville, WA 98239

1.a. Thank You

2.n. Alternatives Considered But Eliminated

We want to protest the proposed plan to bring additional growers to the OLF outside Coupeville and the proposed plan to greatly increase the number of flights. We encourage you to consider other locations in our state or on the west coast for additional operations.

Seattle, WA 98195

Absolutely outrageous. There should be no war game, no Navy growlers screwing up the Olympic peninsula, it's beauty, environment and quiet. absolutely no!!!!!!!!!!!!!!

- 1.a. Thank You
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 7.d. Recreation and Wilderness Analysis and Study Area



Public Meeting Comment Form

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All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name
- 2. Organization/Affiliation
- 3. Address Oak Harbor
- 4. E-mail
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

We live directly under the flight path and have since 1970. We have experienced difficulties.

Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS
YOUR INPUT MATTERS

1.a. Thank You

Havelock, NC 28532

Coupeville is an invaluable resource for our Naval Aviators training in Whidbey Island. The absence of this OLF causes a tremendous safety concern, in that our pilots and EWOs would not have training compatible to what our aircraft carrier operations require. Without a doubt, OLF Coupeville gave me (and all of my student pilots) a replication of the ship that can not be matched at NAS Whidbey Island. Eliminating this resource is a non-starter.

Sequim, WA 98382

I believe the Navy is acting in an inappropriate manner treating the population of the state of Washington and especially Puget Sound and also the Olympic National Park as some sort of training area for pilots. Not only do we hear the growlers already even though we are many miles away, our Olympic National Park set aside As a natural area so people could experience wilderness at its best. Growlers polluting the air with excessive sound is not a wilderness experience.

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

7.d. Recreation and Wilderness Analysis and Study Area



Public Meeting Comment Form

1.a. Thank You

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name [REDACTED]

2. Organization/Affiliation _____

3. Address [REDACTED] ; e-ville

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list (ALREADY ON IT)

6. Please check here if you would like to receive a CD of the Final EIS when available Have it on line

To reflect current knowledge, change "Whidbey General Hospital" to "Whidbey Health" (no spaces) except where there's a citation in parenthesis.

Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Freeland, WA 98249

- 1.a. Thank You
- 2.e. Public Involvement Process

I am concerned about noise levels and the high frequency detection used on Growlers. It is not fair to misuse our bioregion, which is quite occupied, and to misuse the national parks and wildlands/wild seas--a refuge for humanity and other living things. You MUST NEGOTIATE better with the people whose lives you drastically impact.

Draft Environmental Impact Statement Comment Form EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name [REDACTED]

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
resident / biz owner

3. Address [REDACTED] Coupeville WA 98039

4. Email [REDACTED]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and include additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.d. Population Impacts
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.

Additional Concerns:

- Risk of increased aquifer and well contamination.
- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife such as orcas and migratory birds.
- The major terrorist risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as the Growler onboard oxygen system.

Please include any additional comments and concerns here:

I like in Admiral's Cove. ITS beautiful here.
 I even enjoy the occasional fly by.
 But increasing them would make dozens of million \$ HOMES
 WORTHLESS.
 Come on, guys. Seriously?

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, go to Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler EIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

Coupeville, WA 98239

1.a. Thank You
12.j. Property Values

I live in Admiral's Cove, and actually enjoy the OCCASIONAL window-shaking fly-by. But come on, guys. These are MILLION DOLLAR BEACHFRONT HOMES you'd be rendering worthless if it becomes a regular thing. Don't do it. Please. Don't.

1.a. Thank You

Arlington, VA 22202

As a wing-qualified LSO, I personally witnessed the improvement in flying skills, specifically the requisite ship-borne skills, because of the unique attributes (lack of ambient lighting, challenging flight environment, etc) of Coupeville. Coupeville is vital to a successful training program before experiencing the unforgiving environment of night time carrier operations. Frankly, Coupeville saves lives.

Port Townsend, WA 98368

Extend the comment period!

- 1.a. Thank You
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name [Redacted]

2. Last Name [Redacted]

3. Organization/Affiliation individual

4. City, State, ZIP Lopez Island, WA 98261

5. E-mail [Redacted]

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name

2. Organization/Affiliation self

3. Address

4. E-mail

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

Since The Growler is The main Problem
Make Them Fly at a Higher Altitude in the Holding
Pattern 2500' FT; Simple

Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS
YOUR INPUT MATTERS

- 1.a. Thank You
- 3.a. Aircraft Operations

1.a. Thank You

Lopez island, WA 98261

Please keep doing what is necessary the noise is irrelavent compared to our safety..thank you for your efforts..don't listen to whiners on Lopez Island...thanks

1.a. Thank You

Lopez island, WA 98261

I am truly sorry the small population of Lopez Island is causing much trouble about the EA18 growlers...I personally appreciate your protection and training...and the noise is so temporary it is not of significance...please keep doing what is necessary..you have my whole hearted support. [REDACTED]

Lopez Island, WA 98261

Station 2 Why isn't there an alternative that carries out the mission WITHOUT additional Growlers? When will a Hush House be built to reduce engine test noise? Why are you flying over the school? I am currently a junior at Lopez Island High School and my classes have been disrupted by jet noise. My teachers have lost their train of thought, I have lost my train of thought and the other students in my classes have been distracted by the jet noise and started talking about a different subject, because their train of thought was interrupted by the Growlers. If testing is going to increase during the night, why haven't you evaluated the impacts on falling asleep and having peaceful evenings? I am an active student still in high school and I need my sleep in order to grow, be healthy and have energy to actively participate in my classes. Why aren't you doing noise analysis on Lopez Island, and doing EIS noise analysis based on computer modeling? Why hasn't the Navy taken actual noise measurements in San Juan County to benchmark the model predictions? Most people move to Lopez Island for the peace and quiet and it won't be quiet if you increase the Growler testings. Have you observed the startle effects in animals including humans? Can you support your statement that birds are habituated to the noise? How can you say the Growlers have no impact on the climate? It takes fuel, and other sources of energy to test Growlers. If you increase number of Growlers you increase energy wasted and that effects the environment, no matter how many times you say it doesn't. Finally, when will you arrange for a meeting? It's more efficient for all to listen to everyone's questions, so none get asked repeatedly. Thank you for reading my comments and questions.

- 1.a. Thank You
- 10.c. Wildlife Sensory Disturbance and Habituation
- 18.a. Climate Change and Greenhouse Gases
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.m. Supplemental Metrics
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.t. Noise Mitigation

1.a. Thank You

coupeville, WA 98239

The CORE group is a very small minority that we refer to as the CAVE people (Citizens Against Virtually Everything). Their ilk march in our Memorial Day parade with anti military signs, filed loosing court cases against the owners of private land because construction will block the view of a rock, occupy federal lands trying to stop the Standing rock Pipeline and mostly they just want to disrupt anything not on their own agenda....GO NAVY!!!!!!

1.a. Thank You

coupeville, WA 98239

GO NAVY....be safe out there!!!

1.a. Thank You

Freeland, WA 98249

I would like to add my name to those that feel the airfield has a negative impact on the people on the island. the noise is unacceptable and I will work to stop it.

Sequim, WA 98382

If you must play war games please do it on some remote island that is uninhabited by anything alive and do your worst. Your plans to use the Olympic Peninsula are ignorant and do not have the well being of our area, people, habitat, or the earth itself as the criteria. "1 billion birds (already threatened by climate change) fly up and down the pacific coast using it to navigate. This will cause harm to those birds. The Navy's own supporting documents say: "Friendly Electronic Attack could potentially deny essential services to a local population that, in turn, could result in loss of life." But most important from a climate perspective, each jet burns 1304 gallons PER HOUR and produces 12.5 metric tons of CO2 per hour! Just for perspective that is 23% more than the ANNUAL CO2 emissions of a WA state citizen! (Then multiply by up to 118 jets x 260 days a year 14-16 hours a day, at altitudes as low as 1000 feet) This is outrageous that to practice war we would destroy the beautiful peninsula and our planet! Our planet cannot afford these kind of "games". Please for the sake of Life.... stop.

- 1.a. Thank You
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.l. Bird Migration
- 18.b. Average Carbon Dioxide per Aircraft
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

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EA-18G EIS Project Manager
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Norfolk, VA 23508

1. First Name [Redacted]

2. Last Name [Redacted]

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4. City, State, ZIP Lopez Island WA 98261

5. E-mail [Redacted]

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 1.c. Segmentation and Connected Actions
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.i. Proposed Action
- 2.k. Range of Alternatives
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- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
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January, 2017 Comments

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Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

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Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

12. Add your own comments here:

I'm HEARING FROM INTERESTED SOURCES THAT
THE NAVY IS BUYING 40 MORE GROWLERS FROM
BOEING EVEN THOUGH USN HAS NO NEED FOR ADDED
AIRCRAFT, JUST TO ACQUIRE THEM BEFORE BOEING
STOPS PRODUCTION, AND THAT SOME OF THOSE AIRCRAFT
COULD BE BASED AT WHIDBEY. IF THIS IS TRUE, THEN
IT IS INSULTING TO THE US GOV'T, USN, AND THE CITIZENS
OF LOPEZ ISLAND. SINCERELY, 

Seattle, WA 98136

Dear Sir/Madam, Thank you for extending the comment period to February 24, 2017, in order accommodate the fact that having four major public processes open over the holidays, all concerning Navy activities or the biological resources that may be affected by them, made it difficult to read, comprehend and prepare comments in a timely way. 1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because all flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects. 2. Impacts to cultural and historic sites are not adequately considered. The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy.

(http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as "normally unacceptable" and above 75 as being "unacceptable."

(<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/>) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). 3. Piecemealing projects to avoid analyzing cumulative effects is illegal. The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions: 1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft; 2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers); 3. 2012 EA (26 Growlers including 5 from a reserve unit); 4. 2014 EA (Growler electronic warfare activity); 5. 2015 EIS discussing electronic warfare training and testing activity; 6. The current 2016-2017 DEIS (36 Growlers); 7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160. Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.c. Segmentation and Connected Actions
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.f. Endangered Species Impact Analysis Adequacy
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property
- 19.a. Scope of Cumulative Analysis
- 19.b. Revised Cumulative Impacts Analysis
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 19.h. Cumulative Impacts on Biological Resources
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.e. Public Involvement Process
- 2.h. Next Steps
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.d. Arrivals and Departures
- 4.a. General Noise Modeling
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.i. Other Noise Metrics Not Currently in Analysis
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 8.a. Cultural Resources Area of Potential Effect
- 8.c. Noise and Vibration Impacts to Cultural Resources
- 8.j. City of Port Townsend Cultural Resources

limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville alone went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are “no significant impacts.” The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) “...does not allow an approach that would permit dividing a project into multiple ‘actions,’ each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.” The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability. 4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water. 5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is “turning out fully trained, combat-ready Electronic Attack crews.” 6. The current comment period on a Draft EIS should not be the last chance the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The “30-day waiting period” proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts. 7. There are no alternatives proposed in this DEIS that would reduce noise. This violates NEPA §1506.1, which states, “...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives.” According to a memo from the President’s Council on Environmental Quality (CEQ) to all federal agencies, “Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply

desirable from the standpoint of the applicant.”

(<https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the “loser” among these communities. 8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative in the DEIS. According to the CEQ memo, “[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to “identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . .” Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative. 9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010 with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are “tiered” for this purpose, but they are not. Had the activities contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula. 10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the “Affected Noise Environment” around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy’s ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas. 11. The Navy’s claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the “library” of sounds that comprise the basis for the Navy’s computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are “presumably habituated” to noise do not apply when that noise is sporadic

and intense. 12. Commercial airport noise standards should not apply to military jets because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public. 13. The Navy's noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers. 14. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible.

(<https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>) 15. The Navy describes its activities using the term "event," but does not define it. Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them. 16. New information that was not disclosed in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: <https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control. 17. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA

documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed. 18. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets. 19. No mitigation for schools: The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to not allow a comment period on the Final EIS would be unlawful. 20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period. 21. Crash potential is higher: With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable. 22. Contamination of drinking water in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant. 23. Navy knew about contamination in advance: It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of

“identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam].” Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: “Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e).” The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word “perfluoroalkyl” or “PFAS” is not mentioned once in the entire 1400-page DEIS, nor is it mentioned in the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals.

(<https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf>) 24. No mention of contaminated soil is found in the DEIS: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water. 25. Impacts to wildlife have been piecemealed: It does not make sense to separate impacts from just one portion of an aircraft’s flight operations and say that’s all you’re looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy’s study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual “events,” which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process. Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted. 26. Pages of boilerplate language do not constitute analysis of impacts to wildlife: Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is “greatest during flight operations.” However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is “highly unlikely,” largely because “no suitable habitat is present.” This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly

likely that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area. 27. Old research cited but new research not: In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB.

(<http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract>) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds,"

(<http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html>) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the best available science. This DEIS fails that test. Thank you for considering these comments. Sincerely, [REDACTED] Seattle, WA, 98136

Freeland, WA 98249

I am a private citizen who has lived on Whidbey Island for 10 years. I also am a retired military officer, having served 23 years active and reserve duty in the US Army. While supportive of the Navy's general mission involving Growler flights, I am greatly concerned about the large increase in number of flights proposed as well as the expanded areas of operation. This will have a huge detrimental effect on the environment for several reasons, and for all the island's citizens in terms of noise level concerns and safety issues. I am opposed to the dramatic increase in aircraft activity that is proposed by the Navy with regards to Growler operations.

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones

Port Townsend, WA 98368

Please extend by 45 days the deadline for comments on your Draft Environmental Impact Statement for adding 36 Growlers at NASWI. The public needs more time to comment at this busy time of year. Thank you.

- 1.a. Thank You
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name [Redacted]

2. Last Name [Redacted]

3. Organization/Affiliation [Redacted]

4. City, State, ZIP Lopez Island, WA 98261

5. E-mail

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 10.m. Impacts to Marine Species and Habitat
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.

Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).

2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.

Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.

3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.

Action: Redo the noise simulation using the more recent Advanced Acoustic Model.

4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.

Action: Noise levels should only be averaged over active flying days.

5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.

Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."

6. The Draft includes some independent noise measurements and ignores others.

Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion."

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

12. Add your own comments here:

Residents and off island guests
are crucial for Lopez Island businesses
The noise (excessive and extreme) from
the Growlers has an extraordinarily negative
impact on our community
Our quality of life (including
the negative and harmful impact to our
marine wildlife) is eroding because of
the Growlers.

Draft Environmental Impact Statement Comment Form

EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017

Online at: <http://www.whidbeyeis.com/Comment.aspx>
 By mail at: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name _____

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military) _____

3. Address Coupeville 98239

4. Email _____

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and include additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.

Additional Concerns:

- Risk of increased aquifer and well contamination.
- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife such as orcas and migratory birds.
- The major terrorist risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as the Growler onboard oxygen system.

Please include any additional comments and concerns here:

There are still numerous environmental, health, and safety concerns (as mentioned above) that are not adequately addressed in the Draft EIS. This document reads more as a proposal for expansion rather than a study or statement on the environmental impact the EA-18G flights have on the local community.

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

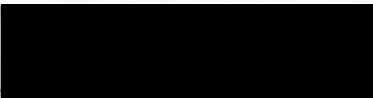
For more information, go to **Coupeville Community Allies**, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler EIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:
EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

- 1. First Name 
- 2. Last Name _____
- 3. Organization/Affiliation _____
- 4. City, State, ZIP Lopez Island, WA 98261
- 5. E-mail _____
- 6. Please check here if you would NOT like to be on the mailing list
- 7. Please check here if you would like your name/address kept private

- 1.a. Thank You
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- 12.h. Tourism
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January, 2017 Comments

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Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

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Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

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Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

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Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

- 1.a. Thank You
- 5.a. Accident Potential Zones

Coupeville, WA 98239

APZ From the definition of exceeding >5,000 operations annually, it would seem that APZs are going to be required for all scenarios and alternatives, even the no action alternative. APZs need to be cleared up in the final EIS. The APZs drawn need to be actual, not conceptual, and the public needs to have a 60-day comment period to respond to them, as APZs significantly restrict land use. Included in these proposed zones are historic homes and barns, working farms, parks, a transit center, animal shelter, hospital, landfills, and schools. This could destroy the heart of Coupeville as these structures are mostly deemed incompatible. What is not listed in the DEIS is how these current incompatibilities will be resolved. Will these structures require re-siting or closure? Can APZs be adjusted? Who will pay to ensure compatibility of current land uses in APZs? And how will landowners be compensated for loss of value if their land becomes placed in the APZ? How will the Navy work with the county and state, and does the public have a say in this? The APZs need to be more clearly defined and explained.

Coupeville, WA 98239

Sound The proposed increased number of flights is not sustainable for this community. It is too much for a community to bear. The 35,000+ flights proposed would mean an almost-continuous interruption of any inside or outside work and activities for those near or under the flight path. It would be impossible to enjoy the peace and tranquility of our rural agricultural community, operate successful businesses and maintain a healthy quality of life. I own and operate a farm. My employees and I are in the fields daily. Being directly in the flight path, the existing number of flights is already challenging and, according to the National Institute for Occupational Safety & Health (NIOSH), dangerous for me and my employees. Even with foam inserts covered with headphones, we can still hear the planes – and feel them. The growl goes through the chest and stomach and down into the ground as it vibrates. With approximately 135 flights a day there would be very few times when it would be safe for us to be in the fields. As a business owner, my bottom line is negatively impacted when the planes fly. Any increase in the number of flights would really hurt the farming community. • Productivity goes down as workers are rattled by the intrusive and constant sound. Communicating tasks and instructions becomes nearly impossible. • Customers don't get out of their cars to shop the farm stand. • Chefs who come to shop the fields find that we are unable to talk so they leave. This often costs me in sales. • Farm to table and other agro-tourism events would be negatively impacted. Agro-tourism is a big draw for this historic agricultural community. As a homeowner, our quality of life, the peace and tranquility we moved here for would be destroyed. Our ability to enjoy the quiet of the gardens, enjoy a hike on the beach or the bluff, host a barbeque in the yard, or watch the stars would all be blotted out by non-stop noise pollution. Even inside our home with all doors and windows closed we are unable to have conversations and often have to wear earplugs inside the house. This is not right. The proposed increase in the number of flights would allow little or no break from the jet noise. Even now, we sometimes experience 3 overhead flights per minute. This continuous noise has a detrimental physical and psychological impact on those experiencing it, like a type of PTSD. It would be unhealthy for any community to experience this number of overhead flights of a plane with the decibel output of the EA-18 Growlers. I would request no increase to the number of flights at OLF and ask that serious consideration be given to other locations for some of these new planes. Other base options were not adequately considered in this DEIS.

- 1.a. Thank You
- 12.e. Agriculture Analysis
- 12.n. Quality of Life
- 2.n. Alternatives Considered But Eliminated
- 4.a. General Noise Modeling
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.m. Supplemental Metrics
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 7.d. Recreation and Wilderness Analysis and Study Area

Coupeville, WA 98239

1.a. Thank You
3.c. Military Training Routes

According to the DEIS the OLF runway in Coupeville does not meet current FCLP safety regulations. The current runway is short by almost 3000 feet or nearly 1/3 of the safety regulations of 8000 feet. A nearly 500% increase in the number of flights will most certainly increase the potential for accidents. This landing field was built in the 1940's for very different aircraft. For the safety of the pilots and the surrounding community, the Navy should be required to bring the landing field up to current safety standards before being allowed to bring in additional planes. This safety violation is not adequately addressed in the EIS.

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Coupeville, WA 98239

Water Contamination I have concerns about the PFOA contaminants recently found in the local wells in Coupeville and Oak Harbor and the safety of our aquifer and environment. The following concerns need to be addressed in the final EIS. • I would like to see a remediation and cleanup plan presented by the Navy to local officials and agreed upon; • I would like to see the Navy provide and pay for filtration systems for the town and private wells impacted. Bottled water is not an option for people with gardens and livestock and not an adequate solution. • I would like the Navy to be required to find a replacement fire retardant that is not toxic to groundwater prior to resuming use of OLF. • I would like the Navy to monitor and ensure that contaminants are not running into the sound The draft EIS does not address the water contamination. It seems an accident prevention and preparedness plan should be included in the EIS. How will the Navy protect the aquifer from further contamination? What type of ongoing monitoring will occur?



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name [REDACTED]
- 2. Organization/Affiliation FLIP /
- 3. Address [REDACTED] 98261
- 4. E-mail [REDACTED]
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

I believe we can do better than this. I believe we are capable of better life-styles without the noise

Please print • Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS
YOUR INPUT MATTERS

1.a. Thank You

Sequim, WA 98382

1.a. Thank You

4.t. Noise Mitigation

7.d. Recreation and Wilderness Analysis and Study Area

There is too much noise now from the Growlers. Many of my trips have been disrupted because Ive had to listen to this noise whether I am in the beach or the mountains affecting my enjoyment. I go outside to get away from noise and would much rather listen to the sounds of nature. I understand the need for our defense department, but enough is enough and I am against additional expansion and wish the current use was more controlled and limited. Please listen to the peoples needs who enjoy the outdoors. It is unfair that Olympic Peninsula because of our lower population has to be the Navy's training grounds.

Oak Harbor, WA 98277

1.a. Thank You
4.t. Noise Mitigation

Jet traffic and noise tend to be mitigated well through local departure and arrival procedures. The greatest impact seems to occur during periods where Field Carrier Landing Practice (FCLP) is confined to NASWI. OLF Coupeville distributes the noise impact by allowing aircrew another option to prepare for shipboard operations.

1.a. Thank You

Saanichton, British Columbia V8Z 5T7

Please stop

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017
SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name [Redacted]
2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
Nonprofit / Citizen
3. Address [Redacted]
4. Email [Redacted]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

I am an educator at Coupeville Elementary school who frequently works with students outdoor in garden education. How will the increased jet noise due to increased activity affect children's learning and how will the navy offset this? How will the navy analysis address learning outdoors? Thank you for taking the time to address these concerns.

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

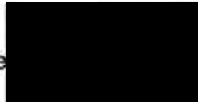


Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

- 1. First Name 
- 2. Last Name 
- 3. Organization/Affiliation _____
- 4. City, State, ZIP *Lopez Island, WA 98261*
- 5. E-mail 
- 6. Please check here if you would NOT like to be on the mailing list
- 7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
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- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
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12. Add your own comments here:

Would love to see a study of the psychological affects
of jet noise on babies emotional stability and stress.
Very tired of taking care of young ones and having
them burst into tears and make scared noises when
a jet flies super low over head.

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

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- 1. First Name [Redacted]
2. Last Name [Redacted]
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5. E-mail
6. Please check here [X] if you would NOT like to be on the mailing list
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- 12. Add your own comments here:

Lopez Island, WA 98261

Dear EIS Comment, Definition of noise levels The Draft at 3-15 uses A-weighted noise levels as a basis for determining the geographical envelope of project impacts as well as the potential for harm This weighting method is based on the sensitivity of human hearing in air. It is inaccurate to apply the same negative weighting factor to those animals that have greater sensitivity of hearing than humans. In terms of noise impacts on wildlife, then, the Draft underestimates effective levels of exposure. Determination of the impact envelope: The contours on the area-of-impact maps (at 3-26 and subsequent) are based on "modeled aircraft noise levels" rather than measured levels. Models are not data; they are forecasts or predictions. In the present case, moreover, the model appears to have been based on flight path geometry, i.e. the nominal departure and approach trajectories of aircraft operating from Ault Field. These ideal paths are incomplete and inaccurate. Our core laboratory is located in Lopez village, and we observe low-elevation flights several days per week at 80 dB and greater, yet according to the Draft our lab is not on a flight path (at 3-8). We contend that the Navy's modeling of the area of impact is flawed, and that actual measurements must be the basis for determining levels of noise exposure. A critical effect of the methodology used to predict the geographic area exposed to 65 dB or greater is the exclusion from consideration of the most important, sensitive federally protected wildlife areas in the San Juan Islands, viz. the SJI National Monument and SJI National Wildlife Refuge, which are used seasonally for nesting and foraging by tens of thousands of seabirds as well as seals, sea lions, orcas, porpoises, and minke whales. Exclusion of the SJI National Monument: The Draft suggests that the lands and waters of the SJI National Monument are exempt from NEPA protection because the 2013 proclamation establishing this NCLS preserve states: "Nothing in this proclamation shall be deemed to restrict safe and efficient aircraft operations, including activities and exercises of the Armed Forces in the vicinity of the monument." Legally, this merely has the effect of preserving the status quo ante: that is to say, it clarifies that the creation of the National Monument does not place any additional burden on the Navy to justify its operations in the vicinity. The President did not--indeed, he did not have the power to exempt the National Monument area from federal laws that already applied to wildlife there. Hence while the creation of the Monument did not per se give the seabirds and terrestrial animals there any greater protection from operation of military aircraft, neither did it exempt the Navy from NEPA or ESA with respect to wildlife in the Monument, such as Marbled Murrelets or marine mammals. Insofar as the Draft excludes the National Monument as a matter of law (at 3-74 and subsequently) it is inadequate under NEPA and should be reconsidered. We note that the Draft concedes that the SJI National Monument is subjected to a maximum noise level of 95 dB an estimated 372 times per year (at 3-34), hence the exclusion of this conservation area from consideration of noise impacts is plainly non-trivial. Reliance on speculation rather than science: The Draft concedes that many protected marine and terrestrial animals within the operational area will be subjected to louder and more frequent noise, but dismisses the relevance of this conclusion by stating, repeatedly, that animals have "presumably habituated" to current aircraft noise, implying that animals will surely tolerate even greater noise levels (4-307, 4-308). This is the pivotal scientific assertion in the Draft with regard to environmental impacts, and it is both speculative and illogical. No evidence of habituation

1.a. Thank You

10.a. Biological Resources Study Area

10.c. Wildlife Sensory Disturbance and Habituation

10.f. Endangered Species Impact Analysis Adequacy

4.f. Noise Measurements/Modeling/On-Site Validation

by the species concerned is provided. Moreover, if something is capable of causing harm--whether it is a chemical compound, or a physical force such as sound pressure--greater exposure is likely to increase stress on organisms, and eventually exceed their ability to adapt. The proper scientific question is "How much noise can species X habituate to in these circumstances?" This is a question of fact that can only be determined by observation. Hence the Draft is merely speculating (presuming) that species in the operational area have already adapted to existing levels of aircraft noise, i.e., they are no longer stressed or responding adversely to overflights. Having speculated that past aircraft operations have had no effect, the Draft asks the reader to assume that raising the noise level will have no impact either, which is nonsense. Accordingly, we submit that the Draft underestimates the levels of noise and the geographical area that will be affected, and merely speculates that existing and future noise levels will not impact the protected species within the underestimated 65 dB envelope. This is not based on science and does not meet the review criteria of NEPA. Sincerely, [REDACTED]

Lopez Island, WA 98261

Comments 1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. I have treated many many Lopez citizens for anxiety headaches and insomnia from growler noise. I live in the Lopez Village. Many evenings I have to experience my vases and other items like walls and windows vibrate while the growlers fly over head. This is really really disturbing. Sincerely, [REDACTED] Lopez Island WA

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 7.h. San Juan Islands National Monument

1.a. Thank You

Anacortes, WA 98221

The Navy's approval to purchase 35 additional EA-18G Growler aircraft will allow for the expansion of an already critically important mission. As the world progresses technologically, the EA-18G will continue to lead the way in identifying, tracking, degrading, and eliminating systems designed to cause grave harm against our naval fleet. By continuing to use OLF Coupeville for FCLP sorties, the Naval Aviators and Naval Flight Officers trained to fly the EA-18G will reap the rewards of real world training at a pattern altitude and glideslope commensurate with Aircraft Carrier flight operations. It is pivotal that OLF Coupeville remain an active component of NAS Whidbey Island/Ault Field, just as it has since 1943, in order to provide this real world training that the Naval aircrews need in order to conduct safe operations while forward deployed in defense of this great nation at sea.

1.a. Thank You

Salem, OR 97301

As a long-time flyer at Naval Air Station Whidbey Island (1985-1999) and aircraft carrier based aviator, I am alive today because of the training I conducted at OLF Coupeville. There are no facilities near Whidbey that come close to offering the same level of training present there. It is imperative that OLF Coupeville remains open, relevant and available for Growler aircrew. Their lives depend on it as does the safety and security of our Nation. Thank you.

1.a. Thank You

Port Townsend, WA 98368-2503

Keep them flying! It's nice to know that we have good trained pilots.

Anacortes, WA 98221

We don't appreciate the noise of the Growlers during the evening. There are times when they fly at night, if we are carrying on conversation or watching TV we have to stop and wait for the Growlers to fly over because they are so loud we can't hear a thing anyone is saying. The thought of having additional Growlers is very upsetting to our peaceful community. There are times the Growlers fly after midnight up until 2:00 am this is not acceptable at all.

1.a. Thank You

4.n. Speech Interference (Indoor and Outdoor)

4.p. Sleep Disturbance

Anacortes, WA 98221

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1.a. Thank You

4.n. Speech Interference (Indoor and Outdoor)

4.p. Sleep Disturbance

Port Townsend, WA 98368

I was on Hurricane Ridge in Olympic National Park today snowshoeing. A growler roared by, I mean ear splitting ROARED. The National Parks are meant to be a place of quiet beauty an escape from the city. Can't we find a better solution?

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

2.k. Range of Alternatives

7.d. Recreation and Wilderness Analysis and Study Area

Nordland, WA 98358

- 1.a. Thank You
- 2.k. Range of Alternatives

The Navy currently uses other areas for this practice as well as the Whidbey Island base. Considering the damage to public health that results from excessive noise it seems better to spread out the damage, and continue to use other facilities.

Portland, OR 97201

I Very Strongly oppose Navy War Fames at Widbey Island and the Olympic Pennisula. This us a Beautiful, Natural Gift of God along the. pacific Coast. People go there for recreation of body and soul! There are so many wonderful wild animals, birds, trees, plants, it's a Rain Forest! Absolutely NO on destruction of people's hearing, wild life hearing, the beauty of Nature, our Planet! We must Practice Peace Time pursuits! Thank you!

- 1.a. Thank You
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 12.n. Quality of Life
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 7.d. Recreation and Wilderness Analysis and Study Area

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:
EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name [Redacted]

2. Last Name [Redacted]

3. Organization/Affiliation VERY CONCERNED CITIZEN/quietSkies

4. City, State, ZIP LOPEZ WA 98261

5. E-mail [Redacted]

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 1.c. Segmentation and Connected Actions
- 12.a. Socioeconomic Study Area
- 12.b. Invisible Costs
- 12.h. Tourism
- 12.j. Property Values
- 12.k. Compensation to Citizens for Private Property
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion."

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

12. Add your own comments here:

157 Growlers + 40^{more} noisemakers? We are already desecrate with devastating noise levels, health problems and worried about the environment – a paradise now under attack by the navy – do tax-paying citizens have no protection from loss of property-values, etc. etc.?

Uopez Isl.

Coupeville, WA 98239

1.a. Thank You
4.r. Nonauditory Health Effects

The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

Coupeville, WA 98239

1.a. Thank You

4.r. Nonauditory Health Effects

The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

Coupeville, WA 98239

1.a. Thank You

4.r. Nonauditory Health Effects

The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

Coupeville, WA 98239

1.a. Thank You
4.p. Sleep Disturbance
4.r. Nonauditory Health Effects

The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.

Coupeville, WA 98239

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

Coupeville, WA 98239

The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data.

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports

Coupeville, WA 98239

1.a. Thank You
4.j. Other Reports

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts.

Coupeville, 98239

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Coupeville, WA 98239

1.a. Thank You
7.c. Noise Disclosure

Island County land-use policies, plans, as reflected by the construction permits issued, have largely defied the Navy's 2005 AICUZ directives for Outlying Field Coupeville, such as no residences in a noise zone 2. Whether due to willful intent to ignore by the County or to lack of Navy assertiveness, it aptly demonstrates the meaningless and ineffectiveness of the AICUZ and attendant land-use provisions in the DEIS. Given the alternatives under consideration in the DEIS, the Navy should be immediately advocating to the County to place a moratorium on all construction permits not compatible with the 2005 AICUZ and DEIS land-use stipulations until the final EIS is approved.

Coupeville, WA 98239

The two most dangerous aspects of flying are the approach, landing and takeoff -- in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site.

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Coupeville, WA 98239

1.a. Thank You

4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Coupeville, WA 98239

1.a. Thank You

13.a. Environmental Justice Impacts

Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of these wells. Leakage of PFAS in storage or use in a crash event is a hugely relevant environmental impact must be addressed and the public must be given the opportunity to comment.

Coupeville, WA 98239

The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% overestimated use of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected.

1.a. Thank You

3.e. Field Carrier Landing Practice Patterns

3.f. Field Carrier Landing Practice Operation Totals

3.g. Field Carrier Landing Practice Evolutions and High Tempo

Coupeville, WA 98239

1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects

The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.

Coupeville, WA 98239

1.a. Thank You
4.q. Potential Hearing Loss

The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated.

[REDACTED]
Coupeville, WA 98239
[REDACTED]

January 07, 2017

EA-18G EIS Project Manager
Naval Facilities Engineering Command
(NAVFAC) Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

Dear Project Manager,

Regarding Environmental Effects associated with **ongoing and future EA-18 Growler** airfield operations at NAS Whidbey Island's Ault Field & Outlying Landing Field (OLF) Coupeville, WA: I am deeply disturbed about the Navy's plans to increase Growler operations at OLF Coupeville. These jets are louder than any previous jets. They disrupt tourism, environmental safety, and our lives. The new, much higher levels of operations proposed in the Draft Environmental Impact Statement (EIS) will destroy the quality of living, and the economy of the entire area.

Military aircraft fly full-throttle a few hundred feet over our house until after midnight. Navy plans will **increase Growler flights 600%**. Our house lies in the flight path of jets, flying under full thrust with no noise suppression.

- 1) At over 100 decibels, the noise level is dangerously high for humans, and animals. During flights, I cannot stay outdoors or risk damage to my hearing. Indoors, even headphones are ineffective. Non-domesticated animals must suffer terribly.
- 2) A growing number of public and private wells have been found contaminated with Perfluorooctanoic Acid ("PFOA"). PFOA is linked to cancers, birth defects, damage to the immune system, heart & thyroid disease, and complications during pregnancy. The Navy still uses firefighting foam containing PFOA, a likely human carcinogen.
- 3) The possibility of an aircraft engine failure is just a matter of time until an out-of-control aircraft crashes into our neighborhood, or nearby community. The potential for more accidents necessitating the use of the toxic firefighting foam containing PFOA must be analyzed within the Draft Environmental Impact Statement.
- 4) The economy of the entire area will be devastated as tourism inevitably declines. Property values have already been negatively affected, and will continue to fall.
- 5) During flights, it is impossible to conduct business in our Coupeville home-based office. I am sequestered in the basement of my home, virtually held captive.

- 1.a. Thank You
- 1.d. General Project Concerns
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.n. Quality of Life
- 13.a. Environmental Justice Impacts
- 2.n. Alternatives Considered But Eliminated
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

6) While driving in Oak Harbor, a truck displayed this sign:

“Idiot: Someone who buys a house in the flight path and then complains about the noise.” This controversy has created a hostile environment. It supports a growing belief that the US Navy cares little about citizens it purports to protect.

These factors create a considerable level of stress. Given that stress is a major cause of illness, I object to with **ongoing and future** EA-18 Growler airfield operations at NAS Whidbey Island’s Ault Field & Outlying Landing Field (OLF). It is reasonable that U.S. Navy find a more appropriate location for an OLF, away from populated areas.

We need real alternatives to the options in the draft EIS. Please help us protect civilian safety, and well-being in Coupeville.

Sincerely, 



Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017

Online at: <http://www.whidbeyeis.com/Comment.aspx>
 By mail at: *Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS*

1. Name _____

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
 _____ *RESIDENT* _____

3. Address _____ *Coupeville WA 98239* _____

4. Email _____

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 10.b. Biological Resources Impacts
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 3.d. Arrivals and Departures
- 4.m. Supplemental Metrics
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.b. Overtasking/Overloading of Air Traffic Control at Ault Field and Elsewhere

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquifer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

La Conner, WA 98257

I am against adding addition jets to the Whidbey facility. Already the jet noise makes work outside unpleasant and even unbearable at times. With the addition of more jets, I am afraid that I will not be able to garden or kayak any more. This infringement of my freedom is unacceptable. From a safety viewpoint, I cannot often hear approaching cars when I commute daily by bicycle. Adding to my personal experiences, there are the much more serious issues of environmental degradation on Whidbey (you now have to provide clean drinking to many households due to pollution of many wells) and the Salish Sea. Please reconsider the deployment of more Growlers, and consider reducing the fleet instead.

1.a. Thank You
11.a. Groundwater
11.b. Floodplains and Wetlands
12.n. Quality of Life
14.b. Vehicle Collisions and Safety
2.n. Alternatives Considered But Eliminated

Coupeville, WA 98239

1.a. Thank You
2.k. Range of Alternatives

First off - I am not anti-Navy. I am a veteran and while never served on carriers, I sailed on the destroyers supporting and performing plane guard activities in Vietnam, U.S. East Coast and the Mediterranean including the Black September blockade of Jordan in 1970. I also support the training - both from experience as a mariner holding a 3,000T Coast Guard ticket as Master, 3rd Mate Unlimited & Pilotage for the Aleutian Islands, plus was the diver on a boat crew recovering the few remains we could find of a ditched pilot in the Med. I have lived on Whidbey Island in the noise zone for 33 years and have regularly jumped on the case of those who just move into the area and then loudly complain. I do believe though that a doubling or tripling of number of flights to EIS Scenario B or A would place an onerous burden the local community as a whole and alternatives locations supporting Coupeville OLF need to be addressed. Thank you.

Lopez, WA 98261

As a longtime southend resident of Lopez Island I live with extreme and violent noise created by navy growler jets from the Whidbey Base FLYING TOO CLOSE AND DIRECTLY OVER the southend of Lopez island. I am one person, but among many, who are adamantly opposed to a proposed 48% increase in Growler traffic over the San Juan Islands. This is a place advertised as a "state jewel" to tourists and known by those who live here as an extremely sensitive environment. Who of these decision makers in the Navy are actually monitoring the realities of the EA-18G Growler EIS Project ? Have any managers physically experienced what is actually occurring here already, without an increase in growler traffic? I suggest the Manager at the Naval Facilities Engineering Command based on the Atlantic in Norfolk, VA come to visit Lopez Island IN THE PACIFIC. Managers of these naval programs, whose salaries are paid by us, clearly support OUT OF ZONE flight patterns and support deafening noise FAR ABOVE DECIBEL LEVELS set by their own management. This is clear because it has been like this for years. Every type of bird, both local and migratory, every type of wild and domesticated animal, human residents and especially children are affected by this war-like presence in island and coastal skies. We experience explosion-like bangs as jets pass over the micro-landscape, rattling glass windows and causing structural vibration. When this occurs around our house there are no animals that don't panic, no birds that don't explode into panicked flight. Recently I met visitors from New England on a day they had just come from Deception Pass Park north of the Whidbey Naval Base in Washington state. They were horrified at the deafening noise from Navy Growler jets ruining their visit to a national park. These reasonable and informed visitors to our area stated that residents would never accept these abusive conditions by the Navy in their own East coast communities. They felt the intimidation by the Whidbey Navy Base on the west coast population was illegal. All I know is how disturbing and divisive the presence of the Navy Jet Growlers has become. I suggest before any increase in Growler traffic is approved that a neutral advisory group spend a week during an undisclosed time period at the Deception Pass Park or the southend of Lopez during a publicly advertised flight schedule from the Whidbey navy base. For the Navy to join the commitment to preserve and protect our shared environment, the growler flight plans need to be re-routed away from sensitive areas of land where people and animals live. The unacceptable noise levels can be reduced by committing to preserve this pristine and ecologically diverse area together in a mutual effort. In the meantime please read carefully the informed rebuttal below from Kwiaht concerning the EIS. This statement is from environmental research scientists living on Lopez Island. These scientists are working to preserve and protect the environment for all citizens, including the pilots and managers of the EA-18G Growler Airfield Operations at Naval Air Station (NAS) Whidbey Island. PLEASE READ: http://www.lopezrocks.org/page.php?type=item&item_handle=1479258870&menu_type=forum&return=36&offset=2016-11-23

- 1.a. Thank You
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.e. A-Weighted Noise Analysis and Scale of Hearing on Wildlife
- 2.e. Public Involvement Process
- 3.a. Aircraft Operations
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to: EA-18G EIS Project Manager NAVFAC Atlantic Attn: Code EV21/SS 6506 Hampton Blvd. Norfolk, VA 23508

- 1.a. Thank You
12.a. Socioeconomic Study Area
12.h. Tourism
2.c. Compliance with the National Environmental Policy Act
2.e. Public Involvement Process
2.k. Range of Alternatives
2.n. Alternatives Considered But Eliminated
4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
4.c. Advanced Acoustic Model
4.d. Day-Night Average Sound Level Metric
4.f. Noise Measurements/Modeling/On-Site Validation
4.g. Average Annual Day/Average Busy Day Noise Levels
4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
4.j. Other Reports
4.r. Nonauditory Health Effects
4.t. Noise Mitigation
7.h. San Juan Islands National Monument

1. First Name [Redacted]
2. Last Name
3. Organization/Affiliation
4. City, State, ZIP Lopez Island, WA 98261
5. E-mail
6. Please check here [X] if you would NOT like to be on the mailing list
7. Please check here [X] if you would like your name/address kept private

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

Coupeville, WA 98239

Environmental Impact Statement Comment Form EA-18G Growler Airfield Operations at NAS Whidbey Island Complex Submitted on 2/23/17 to:

<http://www.whidbeyeis.com/Comment.aspx> 1. Name: [REDACTED]

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military): citizen 3. Address: [REDACTED], Coupeville, WA 98239 4. Email:

[REDACTED] Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear. If the burden of these increased operations must fall on Whidbey Island, then it should fall primarily on the residents of Oak Harbor, who predominantly favor these increased operations and will enjoy most or all of their local economic benefits. Coupeville is already being punished by our local government for our perceived failure to be "pro-Navy." The Navy should not compound this punishment by placing the burden of supporting the environmental effects of these increased operations on those citizens who have the least political power to address the consequences of the increase. Comments (Summary) The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS): Health effects from noise and low-frequency sound. Businesses, schools, hospital, and County and Town public government operations in the Coupeville area. A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute. A decrease in private property values due to noise. Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields. Noise impacts on commercial properties including agriculture. Aquafer and well contamination. Additional Concerns: The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values. The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums. Details: 1. The town of Coupeville and the surrounding Ebey's Reserve are a recognized local, State and national treasure, described by the National Park Service as "... almost a Paradise of Nature," a "stunning landscape at the gateway to Puget Sound ... [that] preserves the historical, agricultural and cultural traditions of both native and Euro-American – while offering spectacular opportunities for recreation." The unique nature of the land surrounding OLF Coupeville, and the substantial investment of public and private resources that has gone into the creation of this Reserve, are not adequately addressed in the DEIS. Also not addressed is the compatibility of increased Navy operations with the purposes of the Reserve. If the purpose of the DEIS is to determine where to locate these increased operations as between the Coupeville OLF and the vastly larger Navy facilities in Oak Harbor, then it is important to note that Oak Harbor has no comparable investment in preserving "historical" Whidbey Island traditions. 2. The DEIS must address the importance of tourism to the Coupeville area. Here, we're not talking about an impact that can be assessed by scientists and engineers. If we develop a reputation for being a place where you cannot predictably hold a picnic or go for a hike without being impacted by

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.a. Socioeconomic Study Area
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 12.p. Local Differences in Economy
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 4.a. General Noise Modeling
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.l. Points of Interest
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 5.a. Accident Potential Zones
- 7.j. Impacts on Outdoor Sports
- 8.e. Outlying Landing Field Coupeville and Coupeville History
- 8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve
- 8.h. Ebey's Landing National Historical Reserve, Military Association

noise, then tourists are going to go elsewhere, regardless of whatever charts and graphs the Navy might produce. 3. Residents of Whidbey Island are well aware that the economic benefits of Navy operations on the Island are concentrated in the Oak Harbor area, as is the political support for expanded Navy operations. It is no wonder that Oak Harbor residents support these operations: they will reap the benefits, while those of us in Coupeville will bear the costs. We have already seen this on Whidbey Island, as Oak Harbor's real estate market is booming, while Coupeville's is stagnant. Again, if the purpose of the DEIS is to determine where these increased operations should take place, then it makes sense to locate them in Oak Harbor, not in Coupeville. 4. Living in Coupeville, it becomes obvious that Navy personnel largely do not come here to shop, dine or otherwise spend money. This is not their home, and sadly, we are not their neighbors. This is reflected in the way Navy fliers frequently ignore instructions to minimize the noise impact of their operations at Coupeville OLF. Siting these operations in the community where they live and shop, Oak Harbor, is most likely to cause pilots to conduct their operations in a way that's most respectful to their neighbors—that is, the neighbors they best know. 5. We have become aware of the dangerous potential impact of Navy operations on our groundwater. As of this writing, the Navy has not identified a plan to conduct Coupeville OLF operations in a way that is compatible with the safety of our drinking water. Once again, Oak Harbor is in a better position to absorb the impact of hazardous waste spills at their Navy facility, as they have access to drinking water from the mainland. 6. I attended the Navy's terrific presentation at Coupeville High School a month or two ago, and the representatives at that presentation freely admitted that the noise modeling used in the DEIS is inadequate. The idea of using some kind of adjusted average noise level to determine the impact of touch-and-go operations is, quite simply, misplaced. We are not impacted by average noise levels, but by repeated peak noise levels. Consider it this way: if for one minute a day you are hit over the head with a club, your condition is NOT best described as "on average, not hit over the head with a club." Other residents have submitted DEIS comments on noise levels that describe this more scientifically, but I think my analogy will serve. 7. The DEIS fails to address noise impacts in key locations in the community. 8. Any good DEIS should discuss ways in which environmental impacts can be mitigated, but this one does not. There is no consideration of concentrating flights at times of least impact to the community, or banning flights during school hours, or flying on strict pre-published schedules (rather than the vague notices we receive of flights in the "afternoon"), or modifying or eliminating routes that have the biggest noise impact, or banning flights during tourist-oriented festivals and events in the Coupeville region. 9. While the DEIS refers to the Navy's historic cooperation with elected officials, this has not always been the case, and is not consistently the case even now. The DEIS should set forth strict guidelines for this cooperation, including the formation of a continuing civilian-Navy joint task force, with representation from all members of the community, with oversight over Navy operations impacting our local environment. 10. Our children are our most precious resource. The DEIS describes increased interruptions at school, but not how this will impact learning. Learning disability outside of the classroom should also be evaluated. While noise impacts at the Coupeville Elementary School is evaluated in the DEIS, the EIS should also evaluate impacts at Coupeville High School and Middle School. 11. The DEIS describes the proposed increase in OLF operations as similar to historic levels of operation. That's simply not the experience of long-time residents in the area. The graph of Previous Airfield Operations for Ault Field and OLF Coupeville on page 1-6 shows that

from 1976 through 2015 OLF Coupeville experienced an average of approximately 13,200 operations per year. A more representational average would be for the 18 years since the A-6 Intruder stopped flying in 1997, which is approximately 5,500 operations per year. In any event, the DEIS calls for approximately 34,500 operations per year. At no time in the history of OLF Coupeville has the number of operations been at the proposed level under this Alternative. Moreover, the DEIS does not consider the historic noise impact of quieter aircraft flying in the past compared to the noisier aircraft flying today.

Coupeville, WA 98239

Although I support the navy and the US military, I also am very concerned about the proposed increase in jet use of the OLF in the Coupeville area of Whidbey and the impact on the surrounding area. My concern is that the proposed increase in flights from over 6,000 to over 35,000 per year will dramatically harm the area in the following ways: 1. The increase will have a negative health impact on those who presently reside in the Coupeville area (e.g: related to hearing), 2. The increase in noise will cause businesses to move. Several people in agriculture and the tourist industry told me that they will move. 3. Property values will decrease. It is imperative that the military and those who live on Whidbey Island engage in productive discussions that lead to reduced flights and a use of the OLF that benefits the military and those who currently reside in the area.

1.a. Thank You
12.c. Socioeconomic Impacts
12.e. Agriculture Analysis
12.h. Tourism
12.j. Property Values
4.r. Nonauditory Health Effects

Coupeville, WA 98239

My wife and I live within the boundaries of Ebey's Landing National Historical Reserve, one of only two such Reserves in the United States. The Navy has chosen to pollute this historic, cultural and touristic area with the training flights of its Growler jets, whose noise reaches unbelievable levels, threatening our lives as well as all the creatures which live in this beautiful part of the world. Where are our elected officials? What are they doing to rectify this monstrous threat to the welfare of the citizens they represent? Do we bow down to the military industrial complex President Eisenhower warned about in his final address to the American people? I paraphrase General Smedley Butler: "War is a racket. It brings great wealth to a small number of people and untold misery to the rest of mankind." We do not need, nor should we put up with, the greed of the military that now rules this country. Citizens arise! You have your lives and the lives of your children and their children at stake. We must defend our rights against this assault on our very existence.

1.a. Thank You

2.e. Public Involvement Process

4.v. Impacts to Domestic Pets, Livestock, or Wildlife

7.g. Ebey's Landing National Historical Reserve

Coupeville, WA 98239

I am concerned that the DEIS does not address the impact of the additional 664 Navy personnel and their families will make on the Island infrastructure. Assuming that each of the Navy personnel will have at least one vehicle and probably there will be an additional vehicle for the family, we are talking a huge increase in traffic in and around Oak Harbor, an already congested town. Nor does the DEIS address the impact on the schools in Oak Harbor and Coupeville. It has recently come to light that the Navy has not met their obligations in student funding in Oak Harbor which bears the brunt of Navy children attending school there. Furthermore, affordable housing is next to impossible to find in the central and north areas of the Island. How will these extra families be housed?

- 1.a. Thank You
- 12.i. Housing Access and Affordability
- 12.m. Education Impacts
- 14.a. Transportation Impacts

February 16, 2017

To: Secretary of the Navy

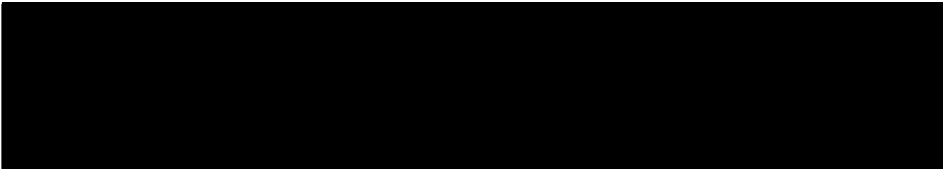
From: [REDACTED]

RE: Draft EIS for EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

We are writing in opposition to the proposed changes described in the above mentioned draft EIS. Because the increased number of planes and personnel directly affects the quality of our lives and the value of our property, we feel compelled to speak out. We are not anti Navy but we are concerned senior citizens who can not stand by and do nothing as these changes are being considered.

Attached is a critique of the above mentioned draft EIS as it appears online (<http://www.whidbeyeis.com>). After attending several meetings and reading through the EIS, we believe it is necessary to point out the many issues to which we take exception.

Please bear with us as we try to make this complex situation and our interpretation of it as clear and brief as possible.



- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.i. Housing Access and Affordability
- 12.j. Property Values
- 12.k. Compensation to Citizens for Private Property
- 12.m. Education Impacts
- 12.n. Quality of Life
- 14.a. Transportation Impacts
- 15.b. Potable Water and Wastewater Capacity
- 15.c. Groundwater
- 15.e. Personnel
- 2.a. Purpose and Need
- 2.n. Alternatives Considered But Eliminated
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.o. Classroom Learning Interference
- 4.q. Potential Hearing Loss
- 7.a. Regional Land Use and Community Character

Critique of Draft EIS for NAS Whidbey Island Complex

HISTORY The EIS history focuses on why the addition of several new planes and personnel associated with them is necessary. It goes to great length and in several places explains that Whidbey Island has been a naval air base for many years. It does not mention that Whidbey Island has also been a home to indigenous people for centuries, to settlers from the East coast since the early 1800's and to their descendants many of whom still farm the land. The claim that the "Navy was here first" is irrelevant to the question at hand, that being: Why must **all** the Growlers be stationed at this particular airfield? Surely that is a question worth pursuing. To us it seems very foolish to have the entire fleet of electronic warfare planes stationed in one place. What happens if that base is attacked? Isn't the Navy putting the entire fleet of planes in jeopardy?

INFRASTRUCTURE The EIS addresses this problem only peripherally. No mention is made of how the Navy will fund additional classrooms and teachers, help the local communities deal with additional vehicles on already crowded roads, where all the additional families will find housing on an island with limited rental housing available. The EIS does present the numbers of officers and enlisted personnel as well as the numbers of dependents associated with the addition of the new planes. However, the numbers in the narrative and the numbers in the charts do not match. For example: we don't know if we would be getting 642 officers and enlisted (page 2-5 Action Alternative 2) with anticipated 910 dependents, or 4768 personnel and 6537 dependents (page 2-9 Action Alternative 2). Which number is accurate? The impact of either sets of numbers on the infrastructure of the communities around the base is of great importance. Where will they live? How will this many more people impact the schools? How many vehicles will they be bringing? Will our water supply be in jeopardy? How will this many more people affect the ferry system? Will the Navy help support the upkeep of the local parks?

NOISE The increase of the number of Growlers and the noise generated by them is of a huge concern to the citizens living near both the Outlying Field and Ault Field. The noise from these planes is downplayed in the EIS by averaging the noise made over time, a practice with no scientific base. Damage to hearing occurs when high noise levels are sustained for long periods of time. Just because a person is removed from the noise for a day or two, does not mitigate the damage done during the time exposed. Residents in the flight path are particularly vulnerable. On days the Growlers are practicing, conversation is impossible, even indoors, when the planes are directly overhead. If one is standing outside under the flight path, the noise is unbearable. Nor does the EIS address the noise levels at the nearby schools. In fact we could find no evidence that noise levels were even measured at any of the schools that might be affected. Two independent groups hired noise professionals to measure noise levels at various places near the Outlying Field. The data from these tests was thrown out by the Navy as being "inappropriate". How will the Navy compensate the homeowners whose property is declared unlivable? What will be the impact on the county property taxes

when homes are devalued by the constant noise? How do children who are overly stimulated by constant noise, learn?

WATER SUPPLY There is no mention of the finite water supply in the EIS. All of the island except Oak Harbor and the NAS depends on water that comes from an aquifer. This aquifer is fed by ground water. Individual wells are dug down into the aquifer and water extracted by pumping. Some wells supply whole towns and communities, others are for individual homeowners. The Navy has already contaminated at least four private wells near the Outlying Field with chemicals used in the practice of fighting fires. These chemicals have also been found in one of the Coupeville town wells. And there is a huge "bloom" of contamination in the ground water from the base into parts of Oak Harbor and the surrounding communities. Should these chemicals find their way into the aquifer, it would be disastrous for the whole island. Personnel from the Navy have been drilling around the Outlying Field to try to determine how far the chemicals have spread. Water has been tested using a questionable standard: a baseline much higher than is accepted in most other states where this has been a problem. There is no mention in the EIS of the chemical contamination, nor of any activity to remediate this condition, nor of any filtration system which might be helpful. What are homeowners to do when their water is not viable? What are the resources to help communities clean their water of these chemicals?

These questions and many others need to be addressed before the Navy expands their operations at NAS-WI.

NAVY SUPPORTERS We would like to emphasize that contrary to what you may have heard, those of us who will be most affected by the proposed changes are not anti-Navy. Many of us are Navy and Marine veterans who had a tour of duty at NAS-WI and came here to retire because it was a beautiful place. We are Navy supporters who are opposed to having a way of life and a beautiful environment destroyed.

We urge you to consider the damaging impact the addition of so many planes will have on this special place. With so few historical communities left in this country, it is surely worth saving this one.

Thank you for taking the time from your busy day to read this and give it your careful consideration.

Greenbank, WA 98253

I am convinced large tracts of natural spaces are unique and irreplaceable, essential as retreats for human health for current and future generations, and increasingly rare. I am against expansion of military operations and training: increasing growler flights, electronic warfare training, marine sound and ballistics experimentation and training and Navy Seal training on, over and around the public spaces of the Pacific Northwest. I am supportive of our military's need to be strong and well trained. I am opposed to concentrating military operations in the norther Puget Sound and Olympic peninsula's large tracts of remote lands and waters. I appeal to you to find alternate and more dispersed sites that will allow training without sacrificing the peace of these increasingly unique spaces. As zoos have become a sanctuary for animals whose habitat has disappeared, the wild places of the Pacific Northwest will become increasingly important sanctuaries of lost habitat in the future. Please do not sacrifice these national treasures - important for future generations - in the name of immediate strategies for this generation.

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 2.n. Alternatives Considered But Eliminated
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name [REDACTED]
- 2. Organization/Affiliation Jefferson County Progressives
- 3. Address [REDACTED] Chimacum 98325
- 4. E-mail [REDACTED]
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

(1) I can only see this as a build up to war. Answers were unsatisfactory as to how, specifically, this increase benefits the U.S. unless a state of war is declared against the countries the speakers identified as agents of "advanced attacks" - Russia and China.

(2) Find a quieter technology before ramping up. Why declare war on the peace of residents + wildlife while awaiting orders to participate in the apparent war to come?

Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

1.a. Thank You

Vancouver, WA 98660

No, no, no!

Langley, WA 98260

1.a. Thank You

4.r. Nonauditory Health Effects

5. Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Langley, WA 98260

1.a. Thank You

4.r. Nonauditory Health Effects

5. Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

SEATTLE, WA 98107

1.a. Thank You

18.b. Average Carbon Dioxide per Aircraft

I object to the proposed action based on the simply ridiculous environmental impacts of this program. These planes burn over 1000 gallons of fuel per hour, emitting 10 metric tons of CO2 in the same time period, and I would prefer that my cohabitants and I not be forced to breathe that junk. I would also strongly prefer that the natural paradise of this region not be further destroyed by excessive noise, pollution, and disruption. Please do not needlessly exploit one of the most beautiful places on earth for the purpose of military masturbation. Thank you.

Langley, WA 98260

The serenity we, the VOTING citizens of South Whidbey Island, enjoy is already negatively impacted by the impossibly loud din of F18 Growlers in our skies. The augmentation of the current fleet, as proposed by our tax-consuming servants in the US Navy is an egregious affront to our quality of life, and that of our wildlife and natural environment. The proposed fleet augmentation must not proceed, and I and my fellow citizens will exercise each and every of our constitutional rights to put a stop to this if we are forced by the US Navy to act in our own defense. Respectfully, [REDACTED] RN
Vigilant US Citizen, and funder of your whole misguided enterprise.

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Coupeville, WA 98239

1.a. Thank You

2.n. Alternatives Considered But Eliminated

As a resident whose waterfront home is directly in the old Coupeville flight path the greatly increased number of flights is an emotional, physical and economic threat to my future. Has the Navy considered using an aircraft carrier to practice touch and go's? How about spreading the location of practice areas rather than concentrating on Whidbey Island and the National Historic Reserve?

Freeland, WA 98249

Your documents make no reference to the material increase in human population of Whidbey Island since you began the "touch and go" program 40 years ago. You do, however, note that the increased FCLP will have physical impact on residents, without providing information on how you will mitigate this impact. Several years ago when Growlers replaced Prowlers, I asked you to study the effect on Marbled Murrelets of your FCLP. Marbled Murrelets are an endangered species and need to be addressed. Likewise, the effects of FCLP on Harriers, Eagles, and Red-tailed Hawks has never been researched. Raptors play an important role in rodent control on Ebey's Landing Reserve, 37% of which you say is within the DNL noise contours. One other comment: under "Transportation" you state that "no significant increase in the use of transit, pedestrian, and bicycle facilities would occur (when the additional support staff and their families move here) because the majority of new traffic will be car based." This will increase local fuel emissions on and near Whidbey Island and can be corrected by strongly encouraging your people to use transit, pedestrian, and bicycle facilities off base. I would appreciate some response to these comments before, not after, the final EIS. Your neighbors here on the Island deserve it. thank you for your attention.

- 1.a. Thank You
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 12.d. Population Impacts
- 12.n. Quality of Life
- 14.c. Pedestrians, Bicycles, and Bus Stops
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation

Port Townsend, WA 98368

I stand opposed to the expansion of the Growler program and the horrendous noise that it is and will make , If the Navy was being asked to move these planes There would not even be a Growler fleet looking for a new home . It is my understanding that they are so noisy that California demands they be moved somewhere else . Well the somewhere is not going to be Wash State . The Navy intends to make the most scenic and dynamic geography in the world , a war zone play pen , This will not do , It is time to stand down and act like concerned citizens and quit acting like barbarians at the gate demanding tribute . The U S Navy and the war machine needs to quit acting like bullies . We know that the noise is detrimental to humans and wildlife . The sonar kills marine mammals , THE Navy has turned into an inconsiderate death machine . Expensive ,Arrogant , and Unnecessary . Please go away , best regards [REDACTED]

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.m. Impacts to Marine Species and Habitat
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017 .
SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name [Redacted]
2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
RESIDENT, CITIZEN, BUSINESS
3. Address [Redacted]
4. Email [Redacted]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 12.e. Agriculture Analysis
- 12.h. Tourism
- 12.j. Property Values
- 12.k. Compensation to Citizens for Private Property
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 7.g. Ebey's Landing National Historical Reserve

ISLAND COUNTY AUDITOR AGR 4027212 Page: 3 of 4 08/01/2002 02:02P

840.7 feet east, more or less, from the east line of said plat of Long Point Manor; Thence South 0°13' West 1843 feet, more or less, to the northeasterly right of way line of Parker County Road No. 176; Thence Southeastly along said northeasterly right of way line to the east line of said donation claim; Thence North along said east line to the meander line of Penn Cove; Thence Northwestly along said meander line to the true point of beginning.

Except that portion of said premises lying westerly and northerly of county road known as Phodena Drive.

Also except any portion thereof lying within county roads known as Parker Road, Rhodena Drive and Reeder Road.

This avigation easement is more properly defined as a right of passage in and through the airspace above an elevation of 1,000 feet AGL, together with the right (1) to cause in and through said airspace such noise as has been inherent in the operation of A-3D, A-6E, EA-6B or follow-on aircraft of lesser or comparable noise level or (2) to fly the aforementioned aircraft through said airspace no more than 10,000 flights per calendar year utilizing the Navy's Outlying Field Coupeville, hereinafter "OLF Coupeville," whichever is greater.

Furthermore, Plaintiffs or his/her/their legally authorized representative(s) agree to hold Defendant, United States of America, harmless from any claim to compensation for the taking claim settled by this stipulation or for any portion of the money paid to Plaintiffs by the United States in order to settle this taking claim

[Redacted] as Trustee of the [Redacted] Marital Trust Dated: 7/24/02

[Redacted] Dated: 7/24/02

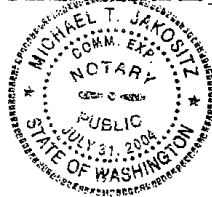
[Redacted] Dated: July 23, 2002

STATE OF WASHINGTON) COUNTY OF KING)

: ss

On this 24 day of July, 2002, personally appeared before me [Redacted], as Trustee of the [Redacted] Marital Trust, to me known to be, or satisfactorily evidenced by proof to be, the individual described in and who executed the within and foregoing instrument, and acknowledged that she signed the same as her free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 24 day of July, 2002.



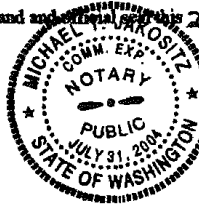
[Signature] NOTARY PUBLIC in and for the state of Washington, residing at [Redacted] My Appointment Expires: July 31, 04

4027212
Page: 4 of 4
08/01/2002 02:02P
ISLAND COUNTY AUDITOR AGR

STATE OF WASHINGTON)
) : ss
COUNTY OF KING)

On this 24 day of July, 2002, personally appeared before me [redacted] to me known to be, or satisfactorily evidenced by proof to be, the individual described in and who executed the within and foregoing instrument, and acknowledged that she signed the same as her free and voluntary act and deed, for the uses and purposes therein mentioned.


Given under my hand and official seal this 24 day of July, 2002.


[Signature]
NOTARY PUBLIC in and for the state
of Washington, residing at Redmond, WA
My Appointment Expires: July 31 04

STATE OF WASHINGTON)
) : ss
COUNTY OF KING)

On this 25th day of July, 2002, personally appeared before me [redacted] to me known to be, or satisfactorily evidenced by proof to be, the individual described in and who executed the within and foregoing instrument, and acknowledged that she signed the same as her free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 25th day of July, 2002.


[Signature] Dianne Myers
NOTARY PUBLIC in and for the state
of Washington, residing at Seattle, WA
My Appointment Expires: 7-19-05



4027212
Page: 1 of 4
08/01/2002 02:02P

After Recording Return To:
Engineering Field Activity, NW
Department of the Navy
19917 - 7th Ave. NE
Real Estate - Code 05L.JI
Poulsbo, WA 98370

COVER SHEET

Document Title: JOINT STIPULATION

Reference No. of Related Documents: N/A

Grantor: [REDACTED]

Grantee: United States of America

Abbreviated Legal Description: Sec 35 and 36, Twp 32 N, R1 EWM, [REDACTED]

Assessor's Property Tax Parcel Account Number: [REDACTED], [REDACTED]



Filed for Record at Request of:

ISLAND COUNTY AUDITOR

AGR

When recorded return to:

Engineering Field Activity, NW
Department of the Navy
19917 7th Ave. NE
Real Estate - Code 05L.JI
Poulsbo, WA 98370

EXCISE TAX EXEMPT

AUG 01 2002

Document Title: Joint Stipulation
Reference No. of Document Assigned or Released: Not Applicable
Grantor's Name: [REDACTED]
Grantee's Name: United States of America
Abbreviated Legal Description: Sec 35 and 36, Twp 32 N, R1 EWM, [REDACTED] DCL
Assessor's Property Tax Parcel Number: [REDACTED]

MAXINE R. SAUTER
ISLAND COUNTY TREASURER

Joint Stipulation

Pursuant to and in consideration for the terms of joint stipulation filed in settlement of [REDACTED] v. United States, 92-309 L (Fed. Cl. Feb. 20, 2002), Docket #94, it is hereby agreed that at least since April 19, 1992 the United States has owned an avigation easement as to the following parcel:

Parcel A

That portion of the [REDACTED] Donation Claim in Sections 35 and 36, Township 32 North, Range 1 East of the Willamette Meridian described as follows:

Beginning at the intersection of the east line of the plat of Long Point Manor, according to plat recorded in volume 4 of plats, page 70, records of Island County, Washington, and the Penn Cove Meander Line; Thence North 80°08' East along said meander line 743.54 feet; Thence South 72°11' East along said meander line 102.07 feet to the true point of beginning, said true point of beginning being on a line parallel with and distant 840.7 feet east, more or less, from the east line of said plat of Long Point Manor; Thence South 0°13' West 1843 feet, more or less, to the northeasterly right of way line of Parker County Road No. 176; Thence Southeasterly along said northeasterly right of way line to the east line of said donation claim; Thence North along said east line to the meander line of Penn Cove; Thence Northwesterly along said meander line to the true point of beginning.

Except that portion of said premises lying easterly and southerly of county road known as Phodena Drive.

Also except any portion thereof lying within county roads known as Parker Road, Rhodena Drive and Reeder Road.

Parcel B

That portion of the [REDACTED] Claim in Sections 35 and 36, Township 32 North, Range 1 East of the Willamette Meridian described as follows:

Beginning at the intersection of the east line of the plat of Long Point Manor, according to plat recorded in volume 4 of plats, page 70, records of Island County, Washington, and the Penn Cove Meander Line; Thence North 80°08' East along said meander line 743.54 feet; Thence South 72°11' East along said meander line 102.07 feet to the true point of Beginning, said true point of beginning being on a line parallel with and distant

Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

Open House Comments

Fill in and Submit at the Open House

1. Name [Redacted]

2. Organization/Affiliation [Redacted]

3. Address [Redacted]

4. E-mail [Redacted]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like your name/address kept private

7. Please check here if you would like to receive a CD of the Final EIS

Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. Evaluate impacts of the Growler at low frequencies (C-weighted, dBC).
2. Recognize the impacts of low frequency Growler noise on health.
3. Incorporate San Juan County noise reports in the EIS analysis.
4. Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.
5. Evaluate a new Alternative that deploys UCLASS jets instead of more Growlers.
6. Commit to Mitigation Measures and timelines in the Record of Decision.
7. Add your own comments here:

⑧ Why has construction for additional Growlers begun without a final EIS

⑨ Are Growler pilots bound by IFR's?

(Continue on the back)

I would attend a Q+A meeting on Lopez where

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.d. Arrivals and Departures
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.m. Supplemental Metrics
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

17. Concerned about increase in noise, pollution and effects on wildlife!

10. There are thousands of acres of non-residential military land in Yakima, WA. Why can't the Navy cooperate with another branch of the military and fly Growler trainings over Yakima, as opposed to subjecting citizens to ongoing harassment.

Island, 11/29/16, 4

* note: if I were responsible for creating the amount of rumbling and shaking the Navy directs at my home, to my neighbors home, this would be grounds for a legal complaint of disturbing the peace or harassment.

11. It seems as if the Navy is spending a lot of \$\$\$ to justify bullying residents, as opposed to truly considering a win-win solution.

12. I have reported some Growler noise at my residence but not all. I will be more diligent and more specific. Art on my walls and glass ware in my cabinets shake and rattle.

In our yard, we frequently need to stop conversation and wait for the rumbling to stop before we can communicate.

11/29/16

www.QuietSkies.info

13. RE: station # 5: I hope I can say in the near future that there is evidence the Navy is truly concerned

Seattle, WA 98125

Hello, I beg of you, PLEASE do not go forward with the Navy's proposed plan to conduct war games and trainings in the Olympic National Forest, with 5,000 training "events" a year. I am an avid hiker, member of WA Trails Association and nature photographer. I love the beauty, ecological and cultural heritage of Olympic National Forest, as do many visitors from around the world. I am very concerned about the damage that these navy trainings would cause to the park and its native archeology sites, as well as its impact on recreational use. Did you know that in 2015, the park received 307,247,252 recreation visits, a 4.9 percent increase over 2014 and the previous record of 292.8 million recreation visits (see below for link to park facts)? Can you imagine shutting down the park or parts of the park 5,000 times a year, denying that many people access??? In addition, Olympic National Park is an ecological reserve for countless endemic species and is also the ancestral home of eight Olympic Peninsula tribes who have a deep connection to the park. There are more than 650 archaeological sites documenting 10,000 years of human occupation in the park's lands (see below link). Diversity is the hallmark of Olympic National Park. The park protects 922,651 acres, encompassing three distinctly different ecosystems - rugged glacier-capped mountains, wild Pacific coast, and magnificent old-growth temperate rain forest. These three ecosystems contain a unique array of habitats and life forms, resulting from thousands of years of geographic isolation, and extreme gradients of elevation, temperature, and precipitation. In addition to potential destruction of this habitat, the noise from the planes would be disruptive to native wildlife and impede visitor's enjoyment of the park. This plan is absolutely ludicrous and there should be no discussion about allowing the Navy to destroy the park for their personal gain. The park is not for them. It is for the recreational enjoyment of the people. As such, their needs, the needs of the tribes should be considered first. It is absolutely critical that the impacts of these navy trainings be seriously considered on the above mentioned discussion points. Sincerely, [REDACTED] WTA member Cascadia Climate Action volunteer Seattle, WA Park statistics here:
<https://www.nps.gov/aboutus/news/release.htm?id=1784>
<https://www.nps.gov/olymp/learn/historyculture/places.htm>

1.a. Thank You

10.a. Biological Resources Study Area

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

7.d. Recreation and Wilderness Analysis and Study Area

9.a. Consideration of Tribes

Seattle, WA 98105

Comments 1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate

- 1.a. Thank You
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 7.h. San Juan Islands National Monument



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name [REDACTED]

2. Organization/Affiliation Resident

3. Address [REDACTED] Langley, VA 98260

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

I strongly oppose the expansion of Growler operations at NAS Whidbey Island. More detailed comments will be submitted electronically.

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 2.e. Public Involvement Process

Coupeville, WA 98239

1.a. Thank You
12.f. Economic Hardship and Impacts
12.h. Tourism

The Coupeville Arts Center dba Pacific NorthWest Art School, a not for profit, has been offering exceptional visual arts education for thirty years now. Our students come from all over the island, from every state in the United States and abroad. One of the reasons our 500 plus students and 50 person faculty come here each year is the quiet rural landscape and the spectacular scenery at every turn. Another attraction is the historic significance of Coupeville. Our photographers and painters frequent Central Whidbey and most specifically, Ebey's Landing National Historic Reserve in search of inspiration and the basis for their artwork. If flights were to increase as projected in scenario A of the EIS this would be catastrophic to our students and in turn our local economy. We often hear "there is no place like this anywhere else". These 500 plus students and 50 faculty members (coming from Portugal, Israel, Australia, the Netherlands, Canada and the United States) pour \$300,000 into our local economy in the form of transportation, lodging, dining and retail spending. This is in addition to the tuition they pay for their workshops. This translates to 1800 room nights and \$5500 meals plus Whidbey Sea Tac Shuttle bookings and retail spending. This I believe is significant to our local economy. Coupeville is a community of approximately 2,000 residents. So to put it into perspective, the population of Coupeville swells by 25% a year due to the art school. We have a national and international reputation and pride ourselves on offering not only great instruction, but a unique and one of a kind experience. We would not be able to offer this if flights were to increase. I truly am not sure if we would be able to continue operate as we do. We are respectfully requesting thoughtful reconsideration of the increase in flights and use of OLF as a primary training ground for the Growler for economic, quality of life and aesthetic concerns. [REDACTED] Coupeville Arts Center dba the Pacific NorthWest Art School, 15 N W Birch Street, Coupeville WA 98239
WWW.PACIFICNORTHWESTARTSCHOOL.ORG 360 678 3396

Seattle, WA 98103

This proposal for the EA-18G Growler Airfield Operations is an unacceptable take-over of our Olympic National Park. Its climate pollution impact as well as its utter prioritization of military expansion over land preservation are dangerous to our state, our citizens and indeed our planet.

1.a. Thank You

18.a. Climate Change and Greenhouse Gases

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

7.d. Recreation and Wilderness Analysis and Study Area

Port Townsend, WA 98368

Dear Sirs: Your EIS is expressly and categorically inefficient. The noise and pollutant impact of these flying death machines is purposefully under evaluated. These war weapons are being built and forced upon the peaceful residents of WA state and they are being funded by a corrupt government military industrial complex. If this is a true democracy, the people should vote directly on these issues. At this point in time our democracy has been eroded and we may only vote for the candidates the establishment has pre-approved. Shame on you and keep your eyes open, for the people are beginning to rise up. Cordially, [REDACTED]

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.d. General Project Concerns
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.e. Public Involvement Process

Coupeville, WA 98239

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Coupeville, WA 98239

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

Coupeville, WA 98239

The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data.

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports

Coupeville, WA 98239

1.a. Thank You
4.j. Other Reports

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts.

Coupeville, WA 98239

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Coupeville, WA 98239

1.a. Thank You

4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Coupeville, WA 98239

1.a. Thank You
7.c. Noise Disclosure

Island County land-use policies, plans, as reflected by the construction permits issued, have largely defied the Navy's 2005 AICUZ directives for Outlying Field Coupeville, such as no residences in a noise zone 2. Whether due to willful intent to ignore by the County or to lack of Navy assertiveness, it aptly demonstrates the meaningless and ineffectiveness of the AICUZ and attendant land-use provisions in the DEIS. Given the alternatives under consideration in the DEIS, the Navy should be immediately advocating to the County to place a moratorium on all construction permits not compatible with the 2005 AICUZ and DEIS land-use stipulations until the final EIS is approved.

Coupeville, WA 98239

The two most dangerous aspects of flying are the approach, landing and takeoff -- in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site.

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Coupeville, WA 98239

1.a. Thank You

13.a. Environmental Justice Impacts

Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.

Coupeville, WA 98239

The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% overestimated use of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected. The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.

- 1.a. Thank You
- 3.e. Field Carrier Landing Practice Patterns
- 3.f. Field Carrier Landing Practice Operation Totals
- 3.g. Field Carrier Landing Practice Evolutions and High Tempo
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects

Coupeville, WA 98239

The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed. The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated. The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

- 1.a. Thank You
- 4.o. Classroom Learning Interference
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. **Name** _____

2. **Organization/Affiliation** _____

3. **Address** _____
COOPERVILLE
98239

4. **E-mail** _____

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

noise model does not make sense

Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model

1.a. Thank You

Anacortes, WA 98221

I want to express my strong agreement with the January 10, 2016, letter submitted by Mr. Jay Ham MD. His letter is well thought out and documented. [REDACTED]
Fidalgo Island resident



Public Meeting Comment Form

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1. Name _____

2. Organization/Affiliation _____

3. Address Corpeirlee _____

4. E-mail _____

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

The safety records for the Growler need to be disclosed.

Fuel dumping not addressed.

Noise modeling is outdated.

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children
- 6.f. Fuel Dumping

Coupeville, WA 98239

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated

Keep the practices to Ault Field and do not add more to the OLF. This is not the sound of freedom. People want freedom from the sound.

COUPEVILLE, WA 98239

I am opposed to any increase in flight schedules in or around the OLF. The increased flights are of no benefit to anyone other than the Navy. I'm opposed to the adjustment in any flight pattern that would have any impact on school learning or the loud noise and jet fuel that could effect health. This EIS is a result of the Navy having to be sued to be honest. The Navy needs to be a better neighbor to Whidbey Island. Stay in Oak Harbor and leave the rest of the island alone.

1.a. Thank You

2.c. Compliance with the National Environmental Policy Act

4.o. Classroom Learning Interference




6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017

Online at: <http://www.whidbeyeis.com/Comment.aspx>

By mail at Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1.	Name	
2.	Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)	<u>resident citizen business owner</u>
3.	Address	 / Coupeville WA 98239
4.	Email	

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

The Pacific Fleet was sited at Pearl Harbor and we dont want all the Growlers sited at NASWI. This might be less costly in peace time but it seems imprudent in light of escalating threats from rogue nations ~~to~~ attacks - threats from terrorist groups. Please locate the Growlers ^{not} intended for OLF Coupeville in a less-populated, less historically valued area.

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

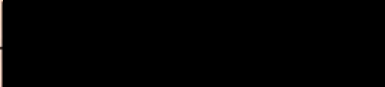



For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

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EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

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SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at *Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS*

1. Name 
2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
Resident/Citizen/Business Owner 
3. Address  */ Coupeville, WA 98239*
4. Email 

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Comments

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(over)

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- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.b. Land Use Compatibility and Air Installations Compatible Use Zones
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
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- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

With my husband and family we are staking our financial well-being on our home property and our small, [REDACTED] development, both of which are in the accident potential zone. The proposed increases from 6,000 to 35,000/year will render our property condemned & the county taxpayers will be impacted unfairly to buy us out at significant loss in value. We are extremely concerned and ask for no increase in flight operations at O.L.F. Coupeville.

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February 6, 2017

EA-186 Growler EIS
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Blvd
 Norfolk, VA 23508
 Attn: Code EV21/55

Coupeville, WA 98239

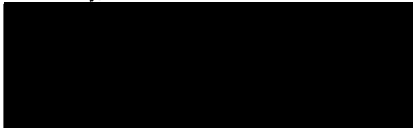
Dear Decision Makers with Consequences for Central Whidbey Island,

In learning more about the details in the Draft Environmental Impact Statement for the proposed increases in Growler flights over Central Whidbey Island, I am very concerned. Here's why:

1. As long time resident and property owner, we have lived under the various density of practice flights at O.L.F Coupeville for over forty years. I didn't know that when the crash occurred in 1983 that a (1982) highly toxic fire-fighting foam was used, and was also used in practice drills at O.L.F. This has contaminated several wells in our community and has far-reaching effects for the health of all of us who drink, cook, bathe and garden using our well-water drawn from the aquifer now testing as toxic in multiple wells nearby. This is blatantly unacceptable and must be addressed and corrected by the Navy. We hold them accountable for contaminating our water.
2. This new proposal suggests a range of flight schedules of yearly averages from 6,000 to 35,000. This suggests up to 135 flights a day, excluding weekends. We live here year-round, and have raised our three children here, all of whom are now tax-paying citizens. We have invested in our own small businesses, one of which is in building construction. Our retirement will hopefully come out of our home and a 6-parcel development that lies under the flight path, and will most certainly be severely driven downward in market price under the increased practice flights proposed here.
3. Our environmental quality of life is higher than our income, which we've worked hard to maintain in our self-employment. We've also volunteered in our schools, fire department, sports programs, youth service clubs, and in the preservation of our historic Central Whidbey town and surrounding farmlands, woodlands and wetlands. We have seen new waves of families come in to take up service jobs, small farm agriculture, and tourist-based businesses. These help to diversify our local economy and will most certainly be impacted negatively by increases in Growler practice flights. The proposed noise, crash-safety levels, and current damage to water quality render much of these long-term business investments worth less.
4. The methods the Navy has used to measure noise levels of the Growlers uses modeling and noise averaging. Please take new measurements using the best technology available. We who live and work in the flight zone deserve accuracy in this matter. National Park Service measurements contradict the Navy's noise level test results.

I implore you to find other more appropriately safe areas for Growler practice flights. Just as our military deserves the highest standards of safety and equipment, our Central Whidbey community deserves the highest standard of air- water- and noise-pollution-free life. We have worked hard to build community integration and preserve our history and open space. Please locate these dangerous Growler practices in open range land without so much prime residential area and population. Short of that, please locate these practice missions over populations that are supportive and love the noise and are willing to risk their personal health and safety. I see in the (2/1/2017) Whidbey News Times that North Whidbey residents have taken out a full page ad of support for the Growlers' increased frequency of practice flights. Let them have the Growlers. And please, wherever they go, opt for the new blue firefighting foam. The specs are only seconds different. Poisoning our soil and groundwater to uphold a corporate defense contract for the highly toxic PFOA foam makes no sense, especially when there's a safe alternative, the AFFF known as "Blue Foam", already used in Canada and other developed countries.

Sincerely,



Freeland, WA 98249

I have lived on Whidbey Island for nearly 34 years, 31 of them in Central Whidbey. I remember in the 1980s when I purchased my first home in Ledgewood beach, being told not to worry about the Navy flight/noise zone, as NAS Whidbey no longer used the Outlying Field except for when the other runways were being repaired or other short term uses. This was true for a short time while we enjoyed living at Ledgewood, then all of a sudden the use of OLF became a near daily occurrence, and in the summer, often went until 1 or 2 am. As well, the flight paths of the jets expanded and changed, so the planes were flying more directly over us. At that time a group of citizens formed a group to try to address concerns about the increasing jet noise, safety issues, fuel dumping, and other related concerns. At that time there was a high concern for safety, as there were issues with wings of this aging jet fleet, and there were several crashes of these jets, thankfully not on Whidbey, that would have been catastrophic on Whidbey. At that time there was also much talk of "encroachment" and how there should not be an increase in building or businesses under the flight path. And there was also the big "Scare" of NAS Whidbey being on the Base Closure list during budget crises, and citizens on the north end, along with local government officials all rallied to save the Navy base. Now we are seeing a proposed expansion (the growler expansion being only one of MANY expansions in Navy training in the NW Training complex, affecting residential and business areas, state and National Parks and Sanctuaries, and affecting wildlife as well as the humans below the flight path or in the way of the training). As the decades have passed, I have seen Whidbey Island grow, with new neighborhoods popping up and rural areas being built up, what once were little part time fishing cabins becoming large homes occupied daily. I have also seen a wonderful increase in agriculture, especially small family, organic or specialty farms, many of these by the grand kids of Whidbey Farmers from generations back. And tourism to our beautiful island has blossomed - our wonderful parks, quaint historic towns, and rural atmosphere, along with wildlife such as birds and whales that draw bird and whale watchers from around the world, provide a very attractive destination. But once people arrive, they find they can't visit the farms, hike in the parks, watch for whales or birds, or sleep in the hotels or bed and breakfasts they have booked in Central Whidbey not knowing they would be spending their vacation under an ever increasingly loud flight path. It seems the Navy has once again attempted to just slip these changes through without an EIS at all, or to exclude as many parts of the plan from public scrutiny as possible. But the new jets are MUCH LOUDER than the old jets, there are still SAFETY ISSUES, there are still issues of TOXINS ENTERING OUR DRINKING WATER. I moved further south to the east side of Greenbank to escape the increasing encroachment of jet noise in Ledgewood beach, and that worked for a short time - and sadly, I frequented the Town of Coupeville much less, as I didn't want to expose my ears to the noise. Then the jets once again started getting louder, and flying further south, and I had to move yet further south to Freeland, after living more than 30 years in Central Whidbey, which I loved, to reach a part of the island that I felt still had the rural atmosphere, and the safety and sanity that come with not living under roaring jets on a near daily basis. All the decades I have lived here, I have watched as anyone who speaks out about these issues - public health and safety issues - is ridiculed and labeled unpatriotic and anti-Navy. I am not anti-Navy, and I venture to say the vast majority of

- 1.a. Thank You
- 1.d. General Project Concerns
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.b. Invisible Costs
- 12.c. Socioeconomic Impacts
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.n. Quality of Life
- 2.c. Compliance with the National Environmental Policy Act
- 2.k. Range of Alternatives
- 4.a. General Noise Modeling
- 4.d. Day-Night Average Sound Level Metric
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

those who want to live and work in a safe place, and have quiet schools for their children to learn in, are not anti-Navy. I respect and understand the Navy's mission, and I am thankful for those who serve to protect us. I understand the need for training. And I have seen the Navy do some very good things for the community. But this doesn't mean the Navy can do whatever it wants, when it comes to affecting our citizen's health and safety, and our communities' economies. These proposed changes, which would make what is already a bad situation measurably worse for those who live and visit here, do not make sense and threaten Whidbey Island and our well being in a number of ways: ~ 5 fold increase of flight operations would make Central Whidbey unlivable for residents, and the economy would suffer as tourism is hurt by this increase ~the increase in noise levels would cause harm and hearing loss to outdoor workers, farmers, park visitors, whale and bird watchers, and cause learning problems for school children ~ this increase brings an increase in the possibility of accidents/crashes, over a much more populated island than was under the flight path when OLF and NAS WI were established. It is too late at this point to stop or slow the growth, it has already happened. The planes are already flying over densely populated areas, business districts, schools and a hospital. ~ the existing flight path already affects towns and islands way beyond Whidbey - the Olympic Peninsula, the San Juan Islands, and Skagit County - louder planes, flying more often and in expanding flight patterns, would affect an even larger area. Many issues that were brought up three decades ago were never addressed, and the issues are now worse and the impacts are greater with this proposed increase in operations, using planes that are much louder, without even conducting adequate noise measurements or assessing many of the impacts of these changes. I implore the Navy to be the good neighbor that it says it is - to consider the economic effects on tourism, businesses, property values, and the health effects on the citizens of and visitors to Whidbey Island, including the following: ~ First, do what we asked for in the 1980s - consider and thoroughly vet alternative training sites, where there are not impacts on human health and safety. Use a retired aircraft carrier anchored at sea as a practice runway (back in the 80s we were told this would be too unsafe for pilots in training.....which only demonstrates the point that it IS TOO UNSAFE to do these practice landings over our neighborhoods, schools, businesses, and hospital). ~ Take actual noise measurements and assess the effects on our health, and on our children's learning ~ Address the true accident potential, especially given the growth in the areas under the flight path - don't keep ignoring it and hoping it won't happen, it is only a matter of time. ~ Address the impact on our outdoor tourism and businesses - Parks, Farms, Hiking trails, sports activities, wildlife viewing, boating and water sports. ~Address the issues of PBDEs and other toxins that are spewed onto the island, the fuel dumping, the poisoning of our sole-source aquifer drinking water, the runoff of toxins that ends up in our surface waters and ocean, harming our endangered salmon, orcas, and other ocean wildlife. ~Address the impacts on birds and wildlife, and on our local, State, and National parks and Reserves, and the economic value it brings to our region by drawing tourists into our communities. The island is surrounded by several species of whales and other protected and endangered marine mammals, which are a huge tourism draw. The impacts of the noise of low flying jets over endangered Southern Resident orcas has not been considered, and a section 7 should apply to this and studies be done to determine noise levels to the whales both underwater and while surfacing, in addition to the danger of the toxins being put into their habitat. ~Give accurate depictions of the positive impacts of NAS Whidbey Island on our County's economy - current amounts being given do not include a lot of the negative impacts, such as lower sales tax

being paid by military personnel who shop on base, the costs of dealing with noise and safety mitigation, the loss of property values, the negative impacts on our businesses and communities when tourists come here for a quiet, rural experience and end up running away from jets flying right overhead. Thank you for giving citizens the chance to comment. We are not anti-Navy, but we live and work here on Whidbey too, and we ask for a conversation and fair evaluation of alternatives and options to the current plans to expand flight operations that already have a huge impact on the Island and region. [REDACTED]

[REDACTED] Freeland, WA

1.a. Thank You

Camano island, WA 98282

We live in the flight path of aircraft from the Naval Air Station and are not at all bothered by the noise or sight of the aircraft. More aircraft flying from the NAS will not be an issue for us.

1.a. Thank You

Arlington, WA 98223

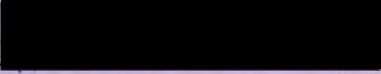

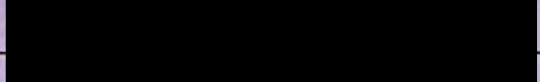
I also live under the flight path of the F-18s although not as close as coupeville. We have the ground shake from the reflecting sound as the 18s are doing low level runs. Guess what? We love it!! We understand FREEDOM isn't FREE. It's a very small sacrifice for us to make to allow safer Naval Aviation through proficiency. it's also the sound of Freedom and while it isn't 24/7 we'd probably be ok with it if it was. It would be interesting to know if the homes that are concerned about the noise were there BEFORE or AFTER. If they were there AFTER Coupeville, why are they complaining???

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

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Online at: <http://www.whidbeyeis.com/Comment.aspx>

By mail at Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1.	Name	
2.	Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)	RESIDENT AND TEACHER AT COUPEVILLE HIGH SCHOOL
3.	Address	 COUPEVILLE WA 98239
4.	Email	

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

SUSTAINABLE SMALL FARM AGRICULTURE IS A HALLMARK OF COUPEVILLE WASHINGTON. I PAY INTO A FARM SHARE EVERY YEAR AND CARE ABOUT MY FARMER'S HEALTH. THE NOISE POSES A REAL AND IDENTIFIABLE RISK TO THEIR HEALTH. I NEED FRESH FOOD FOR MY HEALTH. HEALTHY FARMERS GROW HEALTHY FOOD. GROWLERS POSE A THREAT TO HEALTH.

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name [REDACTED]

2. Organization/Affiliation Midnights Farm

3. Address [REDACTED]

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

Property values on Lopez:
 we've had a 2.5 m property for sale
 on the south end of Lopez for 8 years.
 Having the growlers is a big negative
 now and an increase will compound the
 value/resale issues. How do you
 account for this?

Please print - Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 12.j. Property Values
- 18.a. Climate Change and Greenhouse Gases
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

CO₂ - climate change impact -
 It's well understood that climate change
 will compound national security issues
 What is the CO₂ equivalent emission
 for the additional growlers? Is this the
 best way for us to achieve national security?

Impacts on Biological Resources -
~~space~~ What is the data which supports
 no impact on birds, whales, and other
 wildlife in the area? Since growlers are
 louder than propellers, ~~what is the and~~
 the impact of the noise increase is likely
 not linear what is the basis of your determination

Noise MAP modeling software & data used
 We understand there is better software for
 studying the noise impact and that even the DOD
 has determined noise map not well applicable
 to growler jets. Recommend using newer
 software or at least compare data outputs
 from both models.

Data for noise models - single jets
~~the data~~ are not representative of actual
 impact but were used in the model -
 Use actual data from multiple jets flying
 together.

For more information, please visit the project website at whidbeyeis.com

Please print

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Lopez, WA 98261

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in

1.a. Thank You

12.a. Socioeconomic Study Area

12.h. Tourism

2.c. Compliance with the National Environmental Policy Act

2.e. Public Involvement Process

2.k. Range of Alternatives

2.n. Alternatives Considered But Eliminated

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

4.d. Day-Night Average Sound Level Metric

4.f. Noise Measurements/Modeling/On-Site Validation

4.g. Average Annual Day/Average Busy Day Noise Levels

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.j. Other Reports

4.r. Nonauditory Health Effects

4.t. Noise Mitigation

7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared.

Lopez island, WA 98261-8026

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- 12.a. Socioeconomic Study Area
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- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared.

Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

Open House Comments

Fill in and Submit at the Open House

1. Name _____

2. Organization/Affiliation _____

3. Address _____ *LOPEZ WA 9826*

4. E-mail _____

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like your name/address kept private

7. Please check here if you would like to receive a CD of the Final EIS

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.m. Supplemental Metrics
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

- 1. Evaluate impacts of the Growler at low frequencies (C-weighted, dBC).
- 2. Recognize the impacts of low frequency Growler noise on health.
- 3. Incorporate San Juan County noise reports in the EIS analysis.
- 4. Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.
- 5. Evaluate a new Alternative that deploys UCLASS jets instead of more Growlers.
- 6. Commit to Mitigation Measures and timelines in the Record of Decision.
- 7. Add your own comments here:

the above plus -
please reduce the sound level
It is unnecessary disrespectful
of human life, animal life.

(Continue on the back)

February 22, 2017

To: EA-18G EIS Project Manager

Comments to the Draft EIS

My husband and I own and operate a small, 7 room Bed and Breakfast Inn in Coupeville, WA. We have been in business for 19 years. We signed a document in 1998 stating that we were purchasing a building that was in a noise zone due to the Flight Operations of the Navy. We accepted that we would be subjected to occasional jet noise, the "Sound of Freedom".

We have, to date, not had any issues with the flight operations. As a matter of fact, most of our guests at the Inn have found the operations interesting and not a bother to them. We have had no issues with the current level of about 6,000 flights ops per year. However, the introduction of the Growlers is becoming problematic. They are much louder than the previous Prowlers and the flights that do not conclude until 1:00AM are disruptive to sleep and our guests who have come to the Island to enjoy Ebey's Landing National Historical Reserve and the pristine open spaces.

Our Tourists are our livelihood. Adding 32,600 flight ops to the OLF in Coupeville will bankrupt us and most of our Central Whidbey Area businesses. We have worked tirelessly to promote an area of beauty, serenity and timelessness. To destroy the area with constant, very loud jet noise is incomprehensible.

We live close to a Hospital, to Schools and to Retirement Homes and Apartments. We cannot imagine the disruption to life and the detrimental health issues that will occur due to constant noise to the very young and the very old.

We also live on an Island where there is no affordable housing available. One of our housekeepers cannot find housing that her HUD benefits will cover. We put her in one of our units for 6 months while she was on a waiting list for an affordable apartment. (We did not charge her.) We have a retired Navy chief living in our personal home, at discounted rent, for the same reason. Meanwhile, we live in 400 sq. feet in our Bed and Breakfast.

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.c. Socioeconomic Impacts
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.i. Housing Access and Affordability
- 12.p. Local Differences in Economy
- 2.e. Public Involvement Process
- 2.h. Next Steps
- 2.m. Record of Decision/Preferred Alternative
- 4.k. Comparison of the Prowler to the Growler
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects
- 5.a. Accident Potential Zones

Another major concern is the possibility of crashes. The crash zones were not addressed in the DEIS, however with the 500% increase in flight ops proposed, the odds are greater.

The contaminated water issue is not even addressed in the DEIS. Fortunately our Coupeville wells have tested in the safe levels of contaminates. However, the bad press coming out of Seattle has caused us to lose customers. Imagine what the addition of constant jet noise will do to our businesses.

We are also concerned that there are no discussions of mitigation. We request that we will have an opportunity to comment on the final EIS, especially about mitigation proposals. We are asking for at least 40 days.

We are not anti-Navy and we are not requesting the closure of the OLF. We are just very concerned citizens that are extremely afraid of losing our livelihood. We have been working seven days a week, with the occasional vacation break, for 19 years. We can't imagine losing all we've worked for because of an unfair increase in flight ops in Coupeville in relation to the NASWI base in Oak Harbor.

Please consider leaving the level at what we've experienced over the last 18 years or so. We can see the increase to 8,300 to be closer to reality for our area. The Oak Harbor community has enjoyed the economic benefits of the Navy presence in their community for many, many years. Our community does not enjoy the same benefits and our area is very dependent upon our Tourism economy.

Thank you for your consideration and allowing us to comment on the DEIS.

With Concern,

████████████████████
Owners of the ██████████ B&B
████████████████████

Coupeville, WA 98239

EA-18G Growler EIS Project Manager
Naval Facilities Engineering Command Atlantic
6506 Hampton Blvd.
Norfolk, VA 23508

February 23, 2017

Attn: Code EV21/SS

1.a. Thank You
12.j. Property Values
14.b. Vehicle Collisions and Safety
2.n. Alternatives Considered But Eliminated
4.d. Day-Night Average Sound Level Metric
4.m. Supplemental Metrics
4.r. Nonauditory Health Effects
4.t. Noise Mitigation
7.d. Recreation and Wilderness Analysis and Study Area

COMMENTS ON NAS WHIDBEY DRAFT ENVIRONMENTAL IMPACT STATEMENT:

Our home is located approximately 1 mile from the Coupeville OLF. Having lived in this house for the past 24 years, we were very accustomed to the periodic touch-and-go flight patterns of the Prowlers and recognize the necessity of this important training. However, the new Growler jets have elevated the disturbance and our discomfort to intolerable levels when they are practicing at OLF. The sound and vibration from the Growler flights cause us significant ear discomfort, heart pounding and a feeling of extreme distress if we are caught outside when they fly over our neighborhood.

When inside our house with all the doors and double-paned windows closed, the sound from the Growlers flying overhead is significant enough to interfere with conversation and make phone conversations inaudible. Outdoors the discomfort is unbearable. Even when we are working outdoors while wearing ear protection and running a chainsaw, the noise and vibration from the overhead Growler flights drowns out all other sound, including that of the chain saw we are using.

This is very concerning as one reason we live here in Coupeville is to enjoy the beauty of the outdoors, nature, Ebey's Landing Reserve and the State Parks on Whidbey Island. Additionally, people who work outside don't have the option of avoiding the noise. Children in the Coupeville community need to be able to go outdoors to play, exercise, participate in sports and not be trapped indoors to avoid exposure to the overwhelming noise and vibration of the Growler flights.

In measuring and evaluating the impact of the Growler noise, the method of averaging the noise level over a set period of time is frankly ridiculous. The Coupeville OLF is located in a naturally quiet area, so "averaging" the period of extreme noise (Growler flying) with the hours of the otherwise very quiet environment gives a skewed and meaningless result. The impact of the sound during the time that the Growlers are flying has a serious detrimental impact on our way of life.

Another safety concern we have is that the Coupeville OLF runway runs parallel and adjacent to Highway 20, which is the main road on Whidbey Island. Highway 20 is the sole continuous thoroughfare of Whidbey Island which runs between the north and south access points for Whidbey Island. (It changes name to Highway 525 on the south part of Whidbey Island). In the Coupeville OLF area, Highway 20 is a two lane road with curves and turn offs and constant traffic driving at 50-55 mph. Having the Growler planes doing touch-and-go landings on the OLF runway, which is completely visible and only a few hundred feet away from this roadway is an EXTREME distraction for drivers including the many tourists

and RVs that transit this highway. Although this is a relatively narrow portion of the highway with no areas to pull over or park, people consistently stopping their cars on the edge of the road to watch the planes. This, along with the distraction of the touch-and-go flights occurring on the OLF runway next to this highway, greatly increases the potential for traffic accidents in this area.

We are now very concerned about our property values decreasing due to the distressing noise of the Growler flights as well as the proposed increase in numbers and frequency of the Growler flights. Any loss of our property value would become a huge financial burden for us.

Our suggestions to address these concerns are:

NO INCREASE in flights at OLF

Take action to mitigate the sound of the Growlers

Adapt the airfield at NWSTF Boardman, Oregon as needed to accommodate a portion of the Growler touch-and-go flight practices.

Thank you for considering our comments.

[REDACTED]

[REDACTED]

Coupeville, WA 98239

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to: EA-18G EIS Project Manager NAVFAC Atlantic Attn: Code EV21/SS 6506 Hampton Blvd. Norfolk, VA 23508

- 1.a. Thank You
12.a. Socioeconomic Study Area
12.h. Tourism
12.j. Property Values
2.c. Compliance with the National Environmental Policy Act
2.e. Public Involvement Process
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4.j. Other Reports
4.r. Nonauditory Health Effects
4.t. Noise Mitigation
7.h. San Juan Islands National Monument

1. First Name [redacted]
2. Last Name [redacted]
3. Organization/Affiliation
4. City, State, ZIP Lopez Island WA 98261
5. E-mail [redacted]
6. Please check here [] if you would NOT like to be on the mailing list
7. Please check here [] if you would like your name/address kept private

**Draft Environmental Impact Statement for EA-18G “Growler” Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.

Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).

2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.

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Action: Redo the noise simulation using the more recent Advanced Acoustic Model.

4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.

Action: Noise levels should only be averaged over active flying days.

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6. The Draft includes some independent noise measurements and ignores others.

Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

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Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

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Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

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Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

Shouldn't the Navy consider upgrading
 its war machine to a more
 sophisticated, stealth fleet?
 Growlers & prowlers are so dd
 school. Please be good neighbors &
 stop with your air, water, noise
 pollution. Sincerely, [Redacted]

Lopez Island, WA 98261

It is with mixed feelings that I submit a comment. Last time the navy was accepting comments, I received an offensive response. There was no acknowledgement of what I was saying. Rather, it was a response indicating, sorry, our needs are more important than yours. But what I want to tell you is how difficult some of the days are made on our south end of Lopez Island home by the noise from the naval station on Whidbey. There are days when the noise is unbearable. I must put in earbuds just to partially drown out the noise. Going outside is impossible. The noise, on some days, ruins not only our home and property, but also any enjoyment we may have in our public lands on the south end. I am not talking about the occasional flights overhead. This is not a problem. I am talking about the days when the noise is extremely loud and unremittent. Continuous. There is just no escape from it. My belief is that the Naval Air station training station should absolutely move training to a much less populated part of the country. You are creating too much trauma to too many people to continue as you are, and certainly expanding your noise would be untenable.

- 1.a. Thank You
- 2.f. Use of Public Comments
- 2.n. Alternatives Considered But Eliminated
- 4.i. Points of Interest

Coupeville, WA 98239

Thank you for this opportunity to make comments on the Draft EIS for the EA-18G Growler Airfield Operations at NAS Whidbey Island Complex. Within this Draft EIS, we generally find the potential impacts to the environment, including the community, surrounding the OLF to be understated. As an example of this understatement, we provide specific comments on the following statement found on page ES-4 of the Draft EIS: "...the increase in annual air field operations at OLF Coupeville would range from 2,200 (Alternative 3, Scenarios B and C) to 29,000 (Alternative 1, Scenario A)...these operational conditions would be similar to historic flight operations experienced in the 1970s, 1980s and 1990s." It is true that OLF and the surrounding area have experienced these numbers of operations in the past. But, there are three important facts in this regard that should be addressed in this statement. 1) Historically when the operational numbers have increased to the proposed number of operations, there has been an outcry from the impacted public. The general public tolerates periodic operations similar in scale to those experienced in 2016. But, historically it has been demonstrated the public cannot tolerate the proposed numbers and any suggestion to the contrary is not based on reality. 2) The historical operational conditions cited in the quote above are not the conditions proposed now. There has been a change in the aircraft resulting in perceived louder and broader reaching impact. There is a lower level of tolerance for the noise of the current and proposed aircraft than with flight operations experienced during the 1970-1990's. 3) The proposed operations expand the noise contours beyond those of the 1970-1990's resulting in intolerable impacts to a wider portion of the public. Even at the level of operations in 2016 the actual contours have widen and this has resulted in an increased impact and an increase in public outcry. The Navy should continue to use OLF for practice operations but respect the impacted community and limit the number of operations to a known level of tolerance. Ault Field and OLF are not the only landing fields that can be used for FCLP operations. To spread the practice to other fields has many benefits, not the least of which spreads the impacts over greater areas but not to the point of intolerance to any one area. We were born in Coupeville, long before the OLF was used for jet aircraft practice landings. We farm on Ebey's Prairie on land that has been in the family since 1886. [REDACTED] is fifth generation and our son is sixth generation to farm this land. Our property, which was well outside the 1970-1990's noise contours, sets squarely within the proposed noise contours. We built our home in 1987 outside the noise contours provided at that time. We camped where our house is before we built to determine the impact of the jet noise during practice. Though our property was impacted, we accepted the level we experienced. Since the introduction of the Growlers practicing at OLF, the outer limits of the noise contours have widened and more impactful. Even though our home is located outside the current 65 decibel contour which the Navy has provided, the actual impact is indicative of higher decibels. This has been shown to be true in an acoustical study done by the National Park Service at NPS property at the Ferry House near Ebey's Landing.

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.j. Other Reports
- 4.k. Comparison of the Prowler to the Growler
- 4.t. Noise Mitigation

Coupeville, 98239

Thank you for the opportunity to comment. The EIS reads as though the decision has already been made to not move to another field or build a new field. It cites the economic and environmental impact when in reality there are many places much less environmentally sensitive than an island with a fragile drinking water aquifer. The non-attainment argument is less stringent than the marbled murrelet argument. The EIS reference to Endangered Chinook Salmon was a single paragraph suggesting the fish habituate. Habituation does not prevent impact which clearly hasn't been assessed for ESA listed Chinook. There are also many regions along the west coast with communities lacking the strong tourist destination of Whidbey Island that would love the economic stimulus associated with a new airfield. The argument that the OLF is also similar to an aircraft carrier seems incorrect. The south end of OLF has hundreds of lit up homes at night which wouldn't occur at sea. The OLF is over 100' in elevation which again wouldn't mimic conditions at sea. A much more rural area lacking significant residential neighborhoods would better fit the "at sea" characteristics. The report indicates impact to kids at school. It doesn't indicate the more severe damage to kids living in homes in the higher noise areas trying to do their homework. It is well known that in today's world a student is expected to complete significant amounts of homework to be successful in their studies. Clearly the noise study shows a significant impact that could lead to kids failing courses along with increased stress that may lead to drugs. The significant income associated with outdoor recreation in Washington State is not sufficiently represented. The cost of relocating the Growlers to another location may not be measurably greater than the lost income and property values over time for the business and home owners on Whidbey. Since it appears in the EIS repeatedly that no other alternatives meet "the purpose of and need of the proposed action" a reader presumes the choice has already been made. Clearly for many of the residents and business owners the proposed use is not compatible. A well written objective EIS would provide alternatives including "consideration of the need and proposed action". In all seriousness, the idea for this expansion is most likely already obsolete. There seems to be plenty of opportunity to utilize drones to serve the same need and purpose. This would certainly reduce the risk faced by manned flights. In closing thanks again for the opportunity to comment. It just seems like alternative facts are being presented and thousands of Americans are being put at risk unnecessarily. The tax payers should deserve the same protection as those paid to protect us. Bite the bullet and admit there are alternatives that would better serve the protection of US citizens.

- 1.a. Thank You
- 10.f. Endangered Species Impact Analysis Adequacy
- 10.m. Impacts to Marine Species and Habitat
- 12.h. Tourism
- 12.o. Cost-Benefit Analysis
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference

1.a. Thank You



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name [REDACTED]

2. Organization/Affiliation

3. Address [REDACTED] Lopez, Island WA 98061

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

I FEEL THAT THE MAJORITY OF RESIDENTS ON LOPEZ ISLAND ARE NOT BOTHERED BY THE OVER-FLIGHT OF THE NAVY'S GROWLER JETS AND ARE TOO BUSY WORKING AND LIVING THEIR LIVES. DON'T BE FOOLED BY THE NOISY MINORITY OF COMPLAINERS!
WE LOVE THE NAVY AND THE USA!

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Lake Forest Park, WA 98155

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

Lake Forest Park, WA 98155

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather than busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

Lake Forest Park, WA 98155

The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupportable, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data.

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports

Lake Forest Park, WA 98155

1.a. Thank You
4.j. Other Reports

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts.

Lake Forest Park, WA 98155

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Lake Forest Park, WA 98155

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Lake Forest Park, WA 98155

1.a. Thank You
7.c. Noise Disclosure

Island County land-use policies, plans, as reflected by the construction permits issued, have largely defied the Navy's 2005 AICUZ directives for Outlying Field Coupeville, such as no residences in a noise zone 2. Whether due to willful intent to ignore by the County or to lack of Navy assertiveness, it aptly demonstrates the meaningless and ineffectiveness of the AICUZ and attendant land-use provisions in the DEIS. Given the alternatives under consideration in the DEIS, the Navy should be immediately advocating to the County to place a moratorium on all construction permits not compatible with the 2005 AICUZ and DEIS land-use stipulations until the final EIS is approved.

Lake Forest Park, WA 98155

The two most dangerous aspects of flying are the approach, landing and takeoff -- in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site.

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Lake Forest Park, WA 98155

1.a. Thank You

13.a. Environmental Justice Impacts

Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.

Lake Forest Park, WA 98155

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of these wells. Leakage of PFAS in storage or use in a crash event is a hugely relevant environmental impact must be addressed and the public must be given the opportunity to comment.

Lake Forest Park, WA 98155

The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% overestimated use of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected.

1.a. Thank You

3.e. Field Carrier Landing Practice Patterns

3.f. Field Carrier Landing Practice Operation Totals

3.g. Field Carrier Landing Practice Evolutions and High Tempo

Lake Forest Park, WA 98155

- 1.a. Thank You
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects

The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.

Lake Forest Park, WA 98155

The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.

1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects

Lake Forest Park, WA 98155

1.a. Thank You
4.q. Potential Hearing Loss

The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated.

Lake Forest Park, WA 98155

1.a. Thank You

4.r. Nonauditory Health Effects

The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

Lake Forest Park, WA 098155

1.a. Thank You

2.n. Alternatives Considered But Eliminated

The navy should do more training with computer simulation which is safe for the environment and people living in the community. This also saves the Navy and tax payers a lot of money.

Lake Forest Park, WA 98155

1.a. Thank You

13.a. Environmental Justice Impacts

Lots of seniors and low-income people live in these communities. This majorly impacts their quality of life and the reason they chose to live in this spectacular natural environment. The navy is ruining life for the citizens of WA state not protecting it.

Lake Forest Park, WA 98155

1.a. Thank You
9.a. Consideration of Tribes

Once again the Navy is treading on Native American tribal land. The Navy is ruining quality of life for Native Americans through sound pollution, disruption of habitat for wild life and electromagnetic radiation. If this was over a rich white community, this would not be happening. We must respect the few pristine land and waters we have left.

Seattlr, WA 98119

"Training" over the Olympic Peninsula is too environmentally dangerous. We need to protect this wild place, not endanger it!

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

7.d. Recreation and Wilderness Analysis and Study Area

Lopez Island, WA 98261

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days.

- 1.a. Thank You
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

Langley, WA 98260

1.a. Thank You

7.a. Regional Land Use and Community Character

The whole north end of Whidbey Island is a semi dead space because of the Navy's presence. The scale of and what they want to accomplish is not appropriate for a populated area. There are a lot of unpopulated areas they could move to. It is a little like having a gas station in a neighborhood and then saying we want to build a truckstop and replace the gas station. What's the difference, bigger is better right? The gas station is an appropriate scale for the neighborhood and the truck stop isn't.

Langley, WA 98260

1.a. Thank You

7.a. Regional Land Use and Community Character

The whole north end of Whidbey Island is a semi dead space because of the Navy's presence. The scale of and what they want to accomplish is not appropriate for a populated area. There are a lot of unpopulated areas they could move to. It is a little like having a gas station in a neighborhood and then saying we want to build a truckstop and replace the gas station. What's the difference, bigger is better right? The gas station is an appropriate scale for the neighborhood and the truck stop isn't.

Eastsound, WA 98245

1.a. Thank You

10.m. Impacts to Marine Species and Habitat

Please do not increase aircraft activity over the Salish Sea and known Orca feeding areas. These animals are sensitive to noise, and aircraft activity negatively affects their ability to fish salmon and communicate with one another. It's not fair.

Seattle, WA 98136

Please do not let the Navy conduct flights over the Olympic National Park. The noise totally disrupts animal activity and destroys the park/wilderness experience for human visitors. Losing the park for war games is absurd. The park belongs to the people and should be available for visitation.

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

7.d. Recreation and Wilderness Analysis and Study Area

1.a. Thank You

Coupeville, WA 98239

This is regarding requests for comment on the EIS for whidbey island. As a Coupeville resident, I frequently have the pleasure of hearing the jets as they pass over during training. There is a very small but much louder problem than the jets. This is the group COER. This group has banded together, made ridiculous claims. Some of which I would like to address. 1) The inability of our children to be able to enjoy the outdoors. A) Absurd. We have 8 grandchildren. Ages 5-18. Not one of them has expressed discomfort, fear, inability to enjoy sports or not being able to read, have conversations or enjoy the sunshine. 2) Animals in fear. A) Again, absurd. We have 80 acres. On which we have at any given time, 200 head of cattle, 2 pet pot belly piggies, 2 dogs and 3 cats. None of which run in fear, cower or appear to be in pain in their ears. 3) City leaders being biased. A) Our elected officials have given this group countless hours of time to speak at meetings, the media has given them coverage like no other topic (at no charge for the publicity) and the officials from the base have bent over backwards to appease this very small opinionated group. 4) Allegations of threat/harm/bullying. A) If any bullying has occurred, it has been from their side. They harass officials, invade personal space by standing toe to toe, threaten lawsuits and incite division in our community. So on that note. I also, am a Coupeville resident and as such, I completely support the increase of jets. I fully support any and all hours needed to our pilots so they can be the best possible. And lastly, please continue to be respectful to this small minority but know that the supporters of NASWI far out number COER. We will continue to welcome the navy with open arms and will not stop caring for our neighbors. Even if they are ignorant idiots. Thank you for being here. Without the navy, we would be a ghost town.

[REDACTED]

[REDACTED]

Decatur island, WA 98221

As a resident of Decatur island, I do not support the proposal to double the number of Growler flights. There's enough noise in the region from Whidbey island already. The Quiet Skies Over Lopez group brings up some valid points about the inadequacy of the DEIS: (1) the absence of local noise measurements to gauge the accuracy of the noise models used; (2) the use of an outdated noise model typically used for commercial airports, which averages the noise over long periods of time and thus fails to fully capture the high volumes heard and felt when the Growlers fly; and (3) the absence of analysis of the drinking water contamination recently discovered near Navy training facilities on Whidbey Island.

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

4.f. Noise Measurements/Modeling/On-Site Validation

Port Townsend, WA 98368

I urge you to consider the profound impact the jets have on human hearing and all of our need for peaceful contemplation. Furthermore, our area's "industry" is tourism and outdoor adventure. The presence of these jets will certainly have an impact on that business activity. Please choose in favor of the ability to enjoy ur natural world with minimal disturbance.

1.a. Thank You

12.h. Tourism

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

4.q. Potential Hearing Loss



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1. Name

2. Organization/Affiliation

3. Address

4. E-mail

5. Please check here if you would NOT like to be on the mailing list

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I have been caught outdoors running, kayaking, walking my dogs when the jets start flying. The roar ~~stops~~ of the jet engines stops me in my tracks as I try to protect my ears and shield myself from the noise. This is no way to live. The flight pattern, unbeknownst to us when we bought our house, is less than 150 feet over our rooftop. We can handle the 6,000 flights a year but 35,000 flights a year will mean permanent and irreparable damage to our hearing.

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 12.j. Property Values
- 4.m. Supplemental Metrics
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

hearing (and our nerves). It also would require us to find new homes for our dogs. They do not deserve to live in such an abusive sound environment. We can opt to give our family pets a more sane environment, but unfortunately, we will be stuck here as our home will be worth \$0.00!

For more information, please visit the project website at whidbeyis.com

Please print

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Naval Facilities Engineering Command Atlantic

6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Lopez Island, WA 98261

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide “scientifically and legally defensible noise assessments” of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization “Guidelines on Community Noise” and “Night Noise Guidelines for Europe.” 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.” ACTION: Supplement the EIS to address deficiencies identified in

1.a. Thank You

12.a. Socioeconomic Study Area

12.h. Tourism

2.c. Compliance with the National Environmental Policy Act

2.e. Public Involvement Process

2.k. Range of Alternatives

2.n. Alternatives Considered But Eliminated

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

4.d. Day-Night Average Sound Level Metric

4.f. Noise Measurements/Modeling/On-Site Validation

4.g. Average Annual Day/Average Busy Day Noise Levels

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.j. Other Reports

4.r. Nonauditory Health Effects

4.t. Noise Mitigation

7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared.

Lopez Island, WA 98261

The flight path map in the draft EIS is not up-to-date. Both growlers and the P3/P8 reconnaissance aircraft frequently fly FAR outside the flight paths indicated in the draft EIS. For example, on Lopez Island, they regularly fly over the school, the village, areas directly north and south of the village, approaching Lopez Island from due west. A Navy representative at an EIS public outreach event said that this is due to a “math problem” regarding number of aircraft and airfield capacity. The EIS states that all three alternatives would double current Field Carrier Landing Practices. Therefore, the EIS must correct its flight path maps and provide data on actual flight paths for the current growler contingent, and how the flight paths will expand with proposed additional growlers, and how many more people will be impacted by the flight path expansion, and how often and at what noise level. The EIS must take into account temporary runway closures or other exceptions to an ideal but unrealistic modus operandi. The EIS should base its flight path map on a complete, unedited dataset of GPS flight data. The draft EIS says that bird populations have habituated to the noise, yet anyone observing birds, other wildlife, and pets can see that growler flyovers are disturbing to non-human species. The EIS should include pertinent studies on local wildlife noise impact to support its statement. In addition, the draft EIS does not discuss the CO2 impact of additional growlers flights. One growler emits 12.5 metric tons CO2 per hour. Washington State marine life is impacted by ocean acidification due to anthropogenic CO2 increases which in turn impacts the local shellfish industry. If CO2 emissions of additional growler flights are not included in the EIS, how will the WA State Department of Ecology be notified of the potential CO2 impact? How will the potential increase in jet/aviation fuel for the various alternatives be included in the Washington State Greenhouse Gas Inventory projections report? The EIS for assessing the impact of additional growlers should include CO2 emissions. See also the Office of the Governor Executive Order 12-07. The draft EIS does not include San Juan County noise reports (collected since 2014). The EIS should include these ~6000 actual noise reports and level categories to enhance evaluation of noise pollution affecting residents living near growler flight paths. The SJC noise report data should be compared to the computer modeling results, and computer modeling results and methodology should be reevaluated, in order to match SJC noise reports. In addition, the validity of computer modeling results must be evaluated with actual field decibel measurements during all high and low altitude flight activity scenarios, throughout the year. In addition, actual field data must be conducted for flights with landing gear out, flights outside of the flight path indicated in the EIS (because it is not up-to-date), and low altitude flights – as all these scenarios frequently occur. EIS analysts and Navy representatives at EIS public outreach events react incredulously when told that shouting/yelling (at approximately 100-110) decibels is often required outdoors in San Juan County in order to continue communicating when a growler flies overhead. Their reaction (or lack of knowledge) that this is often the case seems to indicate the need for additional data collection to inform the EIS and subsequent decision-making. The noise impact data should be based on actual, realistic, peak scenarios, not averages. The EIS noise impact data should take into account that growler pilots – despite being advised to follow rules about landing gear, minimum flight altitude, and flight path – don’t always follow these rules, as evident from personal observation for

- 1.a. Thank You
- 10.c. Wildlife Sensory Disturbance and Habituation
- 12.c. Socioeconomic Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.k. Compensation to Citizens for Private Property
- 18.b. Average Carbon Dioxide per Aircraft
- 18.d. Washington State Greenhouse Gas Goals
- 2.k. Range of Alternatives
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.d. Arrivals and Departures
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation
- 7.e. Impacts to Recreation from Noise/Operations

many years. Navy leadership has been unable to monitor and correct for their pilots' behavior. The EIS analysis should therefore assume that a certain percentage of growler flights don't conform to Navy rules that impact noise pollution (suggested percentage from personal observation: 50%), such as landing gear, minimum flight altitude, and flight path. Both growlers and the P3/P8 reconnaissance aircraft frequently fly extremely low, at an estimated altitude of 500ft to 1000ft. The P3/P8 aircraft in particular frequently flies barely above the tree-tops. Extremely low flight altitude drastically increases noise and visual impact. The EIS analysis must include flight altitudes of 500, 1000, 1500, 2000 ft, etc. and indicate noise level impacts for each altitude category. If flight regulations prohibit flying below, for example, 2000ft, then the EIS must not assume that pilots observe this rule. The draft EIS barely mentions noise mitigation measures. Discussion and impact of measures such as hush houses and jet blast deflectors should be expanded. The draft EIS does not mention decision-making criteria for selecting one alternative over another. Clear decision-making guidelines should be established. The draft EIS compares any increased flight activity from additional growlers to the higher flight activity of 1980s. However, the Prowlers of the 1980s did not have afterburners but the growlers of today do. Aircraft with afterburners are much louder. Therefore, this comparison should be removed. The draft EIS should mention the low frequency vibration associated with the growler in section 3.2., Noise Associated with Aircraft Operations. It should also mention evaluations of physical and mental health impacts for low frequency vibrations – this vibration shakes the walls of my house and rattles the glasses in my cabinets 20 miles away from Ault Field. C-Weighting should be used throughout the EIS. The draft EIS states that it is a priority for the Navy to promote the well-being of individuals in nearby communities. The EIS should state in more detail what the Navy will do to show that it is indeed a priority as additional growlers are being considered. For example, how does the Navy intend to eliminate the impact on property values, tourism, and recreation due to noise pollution? Judging from the exasperated comments in the SJC Noise Reports, the Navy is currently not doing a satisfactory job in promoting the well-being of nearby residents. What exactly would change with a potential increase in growlers?

Lopez Island, WA 98261

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in

1.a. Thank You

12.a. Socioeconomic Study Area

12.h. Tourism

2.c. Compliance with the National Environmental Policy Act

2.e. Public Involvement Process

2.k. Range of Alternatives

2.n. Alternatives Considered But Eliminated

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

4.d. Day-Night Average Sound Level Metric

4.f. Noise Measurements/Modeling/On-Site Validation

4.g. Average Annual Day/Average Busy Day Noise Levels

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.j. Other Reports

4.r. Nonauditory Health Effects

4.t. Noise Mitigation

7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared.

Coupeville, WA 98239

I am a concerned citizen that lives in the town of Coupeville. I feel the proposed increase of the number of flights over our historic community will be very detrimental to the economy, environment and the people's well-being. We have something very special here on the Ebey National Historic Reserve. It is one of, if not the only, remaining natural prairie on an island in the United States. A great deal of effort has gone into keeping this area as it was when our founding fathers discovered it and the Native Indians before them. It is the only National Historic Reserve that has a town within its boundaries. A historic town that also goes to great lengths to preserve its history. According to the National Park Service; "The Reserve is a unique partnership (federal, state, town & county) that offers support to the current community in the preservation of their cultural and natural legacy. Most of the Reserve (85%) is privately owned, yet evidence of historic land traditions are everywhere. No landscape in the Puget Sound country preserves such direct connections to as many layers of Northwest history as Ebey's Landing National Historical Reserve - Coast Salish peoples, English explorers & traders, American farmers and sea captains, and even Chinese farmers." So, my question is; "Why would a branch of the armed services of the United States want to destroy this very special National Reserve?" From what I've read and heard about the EIS it does not begin to cover the true impact of this proposed increase of flights. The noise is the first thing that needs further study. I, like many in Coupeville, have a sound level meter and measure the sound as the Growlers fly over. The modeling and averaging the EIS used is a joke. When are you going to produce a document that correctly reflects the noise and potential damage to human hearing and health? I worry for our children who play outside and will be hammered, day after day, with DB levels well above 100. You can't lock up our children in schools with closed windows to protect them. Imagine you're a teacher in the middle of a thought that you're explaining to students who are intently listening and then being interrupted by the extreme noise of the jets. The effectiveness of the thought will be gone. We have many older retired people living in Coupeville. They live here because of the peaceful little town it is. We also have many seniors living in nursing homes and assisted living. Just imagine what an impact all this noise will have on them and their health. There will be an economic impact on Coupeville as well. Just one example is my family. Every year one member of the family hosts a family reunion. Most recently was Spokane in 2015 and Trinidad California last year. We have 25 to 50 people from all over the country who attend. We are planning to host the reunion in the next few years. It will be in the summer with many outdoor activities. If this plan to increase the number of daily flights goes through we will NOT host our reunion and expose our family and friends to this excessive noise. The town will lose the income from lodging, shopping and dining that would have come to town. We are only one family but multiply that impact by many people and you can quickly add up the loss to our community. Please reconsider this expansion of OLF and let the people of this sleepy historic town live a peaceful life!

- 1.a. Thank You
- 12.h. Tourism
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 7.j. Impacts on Outdoor Sports
- 8.e. Outlying Landing Field Coupeville and Coupeville History
- 8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

Coupeville, WA 98239

The EIS says no environmental impact, yet the well testing shows there is. Hard to believe that the proposed number of flights will not disrupt the community, tourism, schools and the quality of life living near OLF

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.h. Tourism
- 12.m. Education Impacts
- 4.o. Classroom Learning Interference

Coupeville, WA 98239

1.a. Thank You

2.n. Alternatives Considered But Eliminated

Please discontinue use of OLF Coupeville. The noise from OLF already limits my time that I spend outdoors. If the use of OLF increases my outdoor time will be even more limited. Please close OLF.

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name [Redacted]
2. Last Name [Redacted]
3. Organization/Affiliation _____
4. City, State, ZIP Lopez Island, WA 98261
5. E-mail [Redacted]

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion."

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

1.a. Thank You



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name _____

2. Organization/Affiliation _____

3. Address _____ *Cambridge WA 98239*

4. E-mail _____

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

*please reconsidered your plans for increasing the flights at OLF
You will make Central Whidbey unlivable.*

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic

6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Sequim, WA 98382

Thank You for the opportunity to comment on the Draft EIS for EA-18G "Growler" Airfield Operations at NAS Whidbey Island Complex, and for holding a public hearing on the Olympic Peninsula. It's good to know you realize the activities at NAS Whidbey impact a large area. This draft EIS is incomplete. The EIS must at least consider the impacts to people who live and work, go to school, and visit the Olympic Peninsula. The impacts of the plane exhaust on climate change. As well as the consequences to the Navy program of manmade or natural disasters need to be considered i.e. earthquakes, tsunamis, fires or terrorist bombs, if all of EA-18G activities are concentrated at NAS Whidbey. Alternatives that consider stationing some or all EA-18G activities elsewhere are needed. Also flight patterns must keep plane noise from penetrating designated Wilderness areas. I am disappointed by the limited consideration of the impact on the residents of the Olympic Peninsula. I would like you to understand that even the current level of activity greatly impacts my daily life. I have been a full time Olympic Peninsula resident for a couple of decades and before building a house, we tent-camped on the property on holidays. We live on the Miller Peninsula, the land between Discovery Bay and Sequim Bay. The house we built is very energy efficient so the walls are one foot thick, a double wall construction, with blown in insulation. Few outside sounds penetrate into my home. We do hear the USCG helicopter airlifting to Harbor View Hospital in Seattle when it goes directly overhead and we hear the Whidbey jets out practicing on stormy evenings. It is now a rare day when I can be outside for one hour and not hear the military planes. The noise from military planes has awakened me on many mornings. The noise from these planes is constant reminders of the violence in the world, increasing my anxiety and apprehension. In April of 2016 I went camping in the Kalaloch camp ground and the noise of the military jets drowned out the sound of the storm surf for an hour and a half straight. This was inside the National Park. The following day I went to the South Fork of the Hoh River and hiked into the Wilderness and again I the noise of the growler flights interrupted the quiet. I hear the military jets in the Buckhorn Wilderness area too. Wilderness areas are scared places for me and many other people. Military plane noise in a designated Wilderness is like the sound of jackhammers on the sidewalk outside a church holding a religious ceremony. It would be very desirable and should be possible for both the Navy to practice and the citizenry to enjoy their homes, yards, neighborhoods, parks and Wilderness areas as well. I ask you to open your minds and hearts to consider alternatives, impacts, costs and logistics of the whole area impacted by NAS Whidbey activities to arrive at an alternative that is reasonable for the people who live here and NAS Whidbey mission. [REDACTED] Sequim, WA

- 1.a. Thank You
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.k. Range of Alternatives
- 4.l. Points of Interest
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects
- 7.d. Recreation and Wilderness Analysis and Study Area

Environmental Impact Statement Comment Form EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name _____

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
RESIDENT + CONSTRUCTION WORKER IN COUPEVILLE

3. Address _____ *Coupeville*

4. Email _____

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.b. Land Use Compatibility and Air Installations Compatible Use Zones
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

If the flights increase to over 5000 operations/yr then APZ's will be in effect. This will lead to higher taxes on the whole county ~~and~~ as the county will have to buy out folks living in APZ zone. The Navy's expansion will have a significant economic burden ~~of~~ on property owners all over this region. This has not been addressed and balanced out w/ the supposed stimulus from additional personnel. There is really no regard for the native folk currently living in this region. Who are you really protecting

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

Coupeville, WA 98239

To Whom it May Concern, NOISE: This long overdrawn document fronting to be a real EIS has so many flaws concerning the noise effects on Central Whidbey. It seems pretty obvious the Navy's proposal for increased Growler operations on Whidbey doesn't care much for the health of the US residents it is supposedly protecting, and instead is handpicking research to show that future Noise levels are justifiable, with minimal effects on the region. Even your personnel presenting this information said that the town of Coupeville will never be the same. Here are points to rebuke your EIS and prove that the Noise level increase is illegal and wrong: 1. There are no alternatives proposed in this DEIS that would reduce noise. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (<https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities. 2. The Navy has exacerbated the problem stated in above by not identifying a preferred alternative in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative. 3. The Navy states that it evaluated noise for the Olympic Peninsula in 2010 with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula. 4. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather

- 1.a. Thank You
- 1.c. Segmentation and Connected Actions
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.i. Other Noise Metrics Not Currently in Analysis
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation

forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas. 5. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense. 6. Commercial airport noise standards should not apply to military jets because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public. 17. The Navy's noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers. 8. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible.

(<https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>) 9. The Navy describes its activities using the term "event," but does not define it. Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them. 10. New information that was not disclosed in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: <https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on

tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control. 11. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed. 12. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets. Thank you and hope you will take these issues seriously.

Coupeville, WA 98239

To whom it may concern, Emotional Distress and Community Breakup. As a resident of the Central Whidbey, I am seeing a massive fracture occur as the expansion has now gone political, with many people who are both pro-OLF expansion and against it starting to get personal with insults. If the Navy is to expand into an area where a significant amount of people dislike the operations that are happening, there should be some sort of community building done by the Navy. This is effecting businesses who are seeing a down slide in customers as people know more about what their neighbors views are. The expansion has to take into account the Social and political ramifications, and bring forth a Social Environmental Impact Statement. Furthermore, I have witnessed depression and tears throughout the community as they know their lives will be changed forever due to the impending Growler increase. There is a huge amount of fear, as people don't know what the future holds, and are seeing threats from pro Navy people in Public forums. My understanding is that the Navy, if doing its job, should be 'Serving as a guardian for America's freedom and defending the life we know' (from the Navy's website). The freedom and life of the citizens in Central Whidbey is recognized by the attachment they have to a special place, community and environment, which will be devastated by the major increase in noise and pollution by thousands more Growler Operations. If the Navy takes seriously being a guardian, then the well being has to be better addressed by both the EIS and the Navy in general. Right now, many people feel more like the enemy of the State, rather than protected by the agency it pays taxes to and should be served by. Thank you for addressing this issue.

- 1.a. Thank You
- 12.c. Socioeconomic Impacts
- 12.k. Compensation to Citizens for Private Property
- 12.n. Quality of Life

Coupeville, WA 98239

To Whom it May Concern, Economic Costs not properly Addressed in EIS. I work construction in and around Coupeville and I personally will see a decline in revenue as people will be forced out of their homes to live elsewhere due to the APZ. Also, assessed value of homes will drop, so will the spending power of the people living in the area who will then not have the money to build or remodel houses, causing less jobs and revenue for me and the business and industry I work for. All small businesses will all be affected this way. The opportunity costs for these and other businesses is never addressed by the Navy, not in the EIS or ever. Instead it touts how it's the economic driver for the whole region, yet has never figured in what a competing industry or group of businesses could bring into the local economy if the Navy weren't around, let alone expand. The effect on money coming in from Tourism will significantly drop due to the consistent noise levels in Central Whidbey. The EIS doesn't address Public Service Costs. Navy personnel don't pay local taxes when they shop or live on base. Instead the non-military residents are significantly underwriting public expenses imposed by military residents, which of course will get worse due to the expansion. As will the Additional Budget Expenses of the County when building more schools, extending transit and dealing with the shit (literally) coming from a wave of more military residents to this area. All in all, a recent report by Economist Michael Shuman reveals an already high price tag, or invisible cost, of \$122 million that the Navy never accounts for due to its operation for the residents of Island County. The Navy needs to look into these before it begins an expansion into the area that could cause a major economic problem for the people in all of Island County. Thank you.

- 1.a. Thank You
- 12.b. Invisible Costs
- 12.c. Socioeconomic Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.m. Education Impacts

Coupeville, WA 98239

To whom it may concern, The Contamination of Drinking Water... ..is not even brought up in the DEIS, even though the Navy new about the PFC's in well water months before the DEIS came out. After I asked multiple employees at the Navy's info sessions, no-one could answer what the Navy plans are to fight fire once a crash actually happens with the increased flights over citizens heads. Which leads me to believe the Navy will use the same chemicals. So, two fold, there will be more risk of crashes and also risk of future contamination in well water. What is the Navy's plan to deal with this increased risk and compensate for it? Why didn't the DEIS address this massive concern?? Furthermore, the DEIS did not mention anything about soil contamination either. Central Whidbey is not a Navy town. It is an agricultural town that relies on the soil to grow and produce crops that people will eat to live and nourish themselves. The soil is probably the most important attribute of the Coupeville prairie as it boasts Class 1 and 2 soils, and has historically produced the largest wheat crop/acre than anywhere else in the country. With increased flights, not only will the risk of chemicals from fighting fire due to higher crash instances increase, but so will the level of other petro chemicals, thus degrading the land for the local farmers who rely on quality soils. This DEIS cannot be taken seriously if it does not address the key concerns of an environment and community it is actually analyzing. The Navy has to include these massive factors and complete an EIS that is not a substandard, half-assed document to appease a process. If this is a snapshot of how the Navy runs its whole ship then the American public have a lot to worry about. Please, do your job like you would when serving your communities and country...which, in this case, you actually are. Thank you and hope you will take this information to heart.

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

12.e. Agriculture Analysis

17.a. Hazardous Materials and Waste Impacts

OAK HARBOR, WA 98277

1.a. Thank You
3.d. Arrivals and Departures

When we built our home in 1994 on [REDACTED] Road map showed "Noise Zone" NOT flight pattern. However at times we have planes flying overhead which is ear piercing.....

Anacortes, WA 98221

My wife and I are residents of Skagit County south of Anacortes. I wish to add my comments to the Public review of the EIS for the EA-18G Growler expansion at Whidbey Naval Air Station. We are opposed to adding the 35/36 additional Growlers aircraft to NAS Whidbey. When we moved to the area in 2003 the Navy was flying the EA-6B Prowler aircraft. We felt the aircraft activity at that time was tolerable. We noticed an increase in the noise level in 2015 when the Prowler was replaced with the Growler. Currently when we are talking our conversation has to stop and wait until the aircraft are out of the area. We have to end phone conversations because we cannot hear the other person. Our windows and sliding glass windows rattle, pictures have to be realigned. If we are outside when the aircraft are flying in the area, we have to stop what we are doing and come indoors. We have grandchildren at our house and have to keep them indoors when the aircraft are flying in the area and we are concerned about their impact the noise will have on their fragile hearing. The other concern is they are flying late at night which it makes it difficult to fall asleep and then also it disrupts our sleep. With the addition of more Growlers all of these conditions will get worse. The noise level will be intolerable and will force us to consider moving from the area and will impact our home value as more people are impacted by the increase noise. In addition, the Navy is in the process of replacing the P-3 Orion turbo prop with the P-8 Poseidon jets and adding 18 more of the MMA aircraft. The jets are louder than the Propeller aircraft and will only exacerbate the overall noise levels. If the additional Growler aircraft are added to NAS Whidbey we think it only makes sense to make best use of the OLF facility at Coupeville. That facility is the ideal configuration for training carrier landings and take offs. Therefore Scenario A of Alternatives 2 or 3 would be the most desirable. We would also advocate for the use of "Hush houses" to mitigate the noise from engine maintenance run ups on the ground. The current noise level from those run ups durations are very disturbing and frequently happen in the late evening hours and interfere with our sleep. We feel that the following was left out of the analysis and should be included: 1. The impact from the additional personnel under the Alternatives to the proposed DOT Highway 20 round -about additions at Sharpes Corner and Gibraltar road intersection. 2. Including Fidalgo and La Conner Elementary Schools and other area schools to figure 3.2-6 "Representative Points of Interest in the Vicinity of NAS Whidbey Island Complex" and including them in the impact analysis. 3. There are several outside activity venues that should be included in the analysis such as Golf courses, baseball fields, soccer fields, hiking, boating and kayaking. When I play golf at the area courses I have to wear ear plugs and cannot communicate with my partners when the jets are flying over. We enjoy hiking and kayaking at the Deception Pass area and we have to cover our ears (which is hard to do while kayaking) and are unable to carry on a conversation with other people in the group. While our grandchildren are at the beach the planes can be flying so low and loud that I rush to cover their ears to hopefully prevent hearing loss. If I only have two hands and I have two grandchildren I cannot cover four ears at once (never mind my own).

- 1.a. Thank You
- 12.j. Property Values
- 14.a. Transportation Impacts
- 14.b. Vehicle Collisions and Safety
- 2.m. Record of Decision/Preferred Alternative
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.k. Comparison of the Prowler to the Growler
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.d. Recreation and Wilderness Analysis and Study Area
- 7.i. Deception Pass State Park and other State Parks

Langley, WA 98260

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Langley, WA 98260

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

Langley, WA 98260

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports

The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data

Langley, WA 98260

1.a. Thank You
4.j. Other Reports

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts.

Langley, WA 98260

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Langley, WA 98260

1.a. Thank You

4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Langley, WA 98260

1.a. Thank You
7.c. Noise Disclosure

Island County land-use policies, plans, as reflected by the construction permits issued, have largely defied the Navy's 2005 AICUZ directives for Outlying Field Coupeville, such as no residences in a noise zone 2. Whether due to willful intent to ignore by the County or to lack of Navy assertiveness, it aptly demonstrates the meaningless and ineffectiveness of the AICUZ and attendant land-use provisions in the DEIS. Given the alternatives under consideration in the DEIS, the Navy should be immediately advocating to the County to place a moratorium on all construction permits not compatible with the 2005 AICUZ and DEIS land-use stipulations until the final EIS is approved.

Langley, WA 98260

The two most dangerous aspects of flying are the approach, landing and takeoff -- in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site.

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Langley, WA 98260

1.a. Thank You

13.a. Environmental Justice Impacts

Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.

Langley, WA 98260

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of these wells. Leakage of PFAS in storage or use in a crash event is a hugely relevant environmental impact must be addressed and the public must be given the opportunity to comment.

Langley, WA 98260

The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% overestimated use of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected.

1.a. Thank You

3.e. Field Carrier Landing Practice Patterns

3.f. Field Carrier Landing Practice Operation Totals

3.g. Field Carrier Landing Practice Evolutions and High Tempo

Langley, WA 98260

- 1.a. Thank You
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects

The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.

Langley, WA 98260

1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects

The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.

Langley, WA 98260

1.a. Thank You

4.q. Potential Hearing Loss

The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated. 15. The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Langley, WA 98260

Though I am not a resident of Coupeville or Oak Harbor, as a Whidbey Resident I'm very concerned with the fact that our sole source aquifer is being contaminated. And this is besides the fact that what is happening is killing a town - Coupeville is the second oldest town in Washington State, as well as the residence of thousands of people. The military exists to protect our citizens, not hurt them. I am not against the military or for taking away jobs but it is YOUR responsibility to fix this mess, both for our community and for the soldiers in your employ. Mistakes happen. This is an expensive one, but you need to do the right thing. Please don't kill our community and our environment.

1.a. Thank You

Sequim, WA 98382

I've been a resident of both Whidbey Island and Sequim, WA intermittently since 2003. Jet noise is a part of life in this area and essentially fades into the background of Island life. EVERYONE who moves to the Island either buying or renting signs a form acknowledging the presence of jet noise. I am proud as an American and a Washingtonian to have the Sailors of NASWI protecting this great nation both at home and abroad! Let 'em bounce!

Port Townsend, WA 98368

For as long as there is a possibility of deployment of EA-18G aircraft to a hostile environment, then I support the notion of their crews getting the best possible training. I defer to the expertise of the U S Navy in determining what that training entails. I therefore am willing to endure some increase in noise levels if necessary. I do not believe the Navy wants to waste costly fuel if it is not necessary. Concerning the overflights of Olympic National Park, I doubt very much that any wildlife or vegetation life will be impacted. If so, then let us ban commercial flights in that area as well. As far as increased militarization of the Peninsula is concerned, I see that as a separate issue more rightly addressed to the Congress and/or President.

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name
- 2. Organization/Affiliation
- 3. Address Lopez
- 4. E-mail
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

Please there must be another base
 2 (I believe Nevada) where the
 "Growler" can practice. The density
 of homes around which the noise and
 fierce impression of this aircraft
 is vast. Lopez Island is my home
 for over 30 years. We all put up
 with the Navy sound ~~B/E F O R E~~
 the Growlers/come. Now it

Please print • Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

takes away from our quality
of LIFE. Please no Growlers.
Most people don't speak-up.
Few want them here.

Please move the GROWLERS

Don't Add more

For more information, please visit the project website at whidbeyeis.com

Please print

Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Freeland, WA 98249

Please limit flights

1.a. Thank You

2.n. Alternatives Considered But Eliminated

Port Townsend, WA 98368

1.a. Thank You

2.b. Scope of the Environmental Impact Statement and Analysis
Conducted

I have attempted, unsuccessfully, to wade through the verbage,acronyms, assumptions and conclusions of the draft EIS. It is a masterful piece of obfuscation. An excellent example of "If you can't dazzle them with brilliance, baffle them with bullshit" My comment: The increased noise and frequency of occurrence due to the increase in numbers of EA-18g Growler aircraft flying over and /or near my home will be a significant detriment to my peaceful enjoyment of life. I base this subjective analysis just upon the current level of activity. If, as proposed, it is increased by 35 or 36 aircraft the peaceful enjoyment of my home will be severely impacted.I strongly object to any of the alternatives proposed.

Bellingham, WA 98225

Using the Olympic Peninsula for military "events" such as war games, trainings, and flyovers cannot be allowed to happen. This is disruptive and disrespectful to Tribal people on their lands, visitors to the National Park who have made plans well ahead of time of any unannounced closures, most certainly affects a myriad of sensitive and endangered wildlife species who call the Peninsula home, and the Olympic Peninsula itself which has a right to exist and renew under its own natural processes. Two summers ago I backpacked the coastline with my wife from Lake Ozette to Rialto Beach. It was an escape into the wild with very little human interaction the entire week. It was peaceful. It was unpredictable. Would we have been able to take this break from our daily lives to plug back into the natural world? Would we have been able to spend time with the Mule Deer, the Sea Lions, the Bald Eagles, and River Otters and the Harbor Seals if the military was flying Growlers all over the place? I have taken classes out in the Hoh rainforest and along the coastline learning about the natural world and the wildlife that lives there. Would we have been able to conduct these classes with military exercises taking place all thru the year? We pumped money into the economy while we were visiting. We hired a shuttle service, we paid park fees and permits, we ate and drank in local restaurants on the way in and out, we bought some outdoor gear. This is important money for the businesses and communities out on the Peninsula. The Pacific flyway is right along this route. Millions of birds migrate thru this area each season and are on the edge already with habitat loss and resource loss. How much more can these birds endure before another link in their chain causes mass die-offs and extinctions? Our Orca pods pass along these coasts. These large mammals are already threatened in our waters. The incredibly loud noise pollution from any military training out there would disrupt so much other life. The hormonal stresses and unknown health concerns from any kind of emissions need to be fully understood ahead of time. There needs to be a full environmental impact statement worked up that includes both the proposed Olympic Peninsula training along with the proposed Growler aircraft on Whidbey. They are connected and not exclusive from each other. Thank you for your time and attention. I look forward to the sensible decision being made and to my ability to visit the Peninsula for decades to come without military exercises taking place all around me.

- 1.a. Thank You
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.f. Endangered Species Impact Analysis Adequacy
- 10.l. Bird Migration
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 7.d. Recreation and Wilderness Analysis and Study Area
- 9.a. Consideration of Tribes

Camano Island, WA 98282

I live on the NW corner of Camano Island facing Whidbey across from Coupeville. In the past, when Growlers are operating at the OLF, it has been impossible to remain outside without the very loud noise coming from the OLF. It's constant and makes working outside impossible. And this is on Camano many miles away! These jets were designed for shock and awe and purposely are loud. They do not belong in a non-combat zone residential area such as Whidbey and Camano. They are a threat to public health. Surely there are other locations the Navy has access to that are in less densely populated areas. It's outrageous that my family on Camano feel like we live in a war zone when these jets are operating. I am going to buy myself a noise measurement device to monitor the jet noise in the future and if it proves my contention that it is a threat to public health I will be keeping a log that I will present to the Naval Commander and my elected representatives.

1.a. Thank You

12.n. Quality of Life

2.n. Alternatives Considered But Eliminated

4.f. Noise Measurements/Modeling/On-Site Validation




4.r. Nonauditory Health Effects

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

- 1. First Name 
- 2. Last Name 
- 3. Organization/Affiliation None
- 4. City, State, ZIP Shaw Island, WA 98286
- 5. E-mail 
- 6. Please check here if you would NOT like to be on the mailing list
- 7. Please check here if you would like your name/address kept private

Our family enjoys seeing ^{small} an craft fly by and don't mind intermittent noise, but the noise from the Growlers is so disruptive. We cannot carry on conversations, the noise terrifies my children, and it has woken sleeping ^{my} children ~~who sleep through a lot!~~ (who sleep through a lot!).

01/08/16 www.QuietSkies.info

The noise from the Growlers is a noise that can be felt as well as heard and it seems to last for quite a while.

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "if a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion."

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

Coupeville, WA 98239

As one who has experienced firsthand the sound of a terrorist bomb detonating in Jerusalem, and has moved up to Whidbey, in part, to experience peace and quiet, I object strongly to the noise generated by Growler practice at OLF. I do not buy into the argument that this is the best place for these planes to practice. Surely in all of the USA there has got to be a better place! One that is not a National Park Reserve, and one of the most beautiful little towns on the West Coast. Where many of the residents are retirees who specifically moved here to enjoy the peace and natural beauty. Please please give this 67year old grandma a break from ear-splitting noise, sometimes in the late night hours, and particularly onerous during our brief summers. Stop the Thunder!!!

- 1.a. Thank You
- 1.d. General Project Concerns
- 2.a. Purpose and Need
- 2.n. Alternatives Considered But Eliminated
- 4.r. Nonauditory Health Effects

friday harbor, WA 98250

I am so tired of the increasing noise generated by the Navy's Growlers. We can not carry on a conversation when they fly overhead and the rumble from static testing is unnerving. I am considering moving from my long term home to escape the racket. The Navy has proven to be unconcerned with the effects of these planes on the citizenry, indeed, plans to increase the frequency of flight testing, bring more Growlers to the base. Consider me fed up.

1.a. Thank You

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.n. Speech Interference (Indoor and Outdoor)

Coupeville, WA 98239

1.a. Thank You

3.e. Field Carrier Landing Practice Patterns

I want to make it clear that I support our Navy, and my extended family includes many military personnel past and present. I have supported no previous petitions related to flight frequency and OLF even though I live within the flight path. However, I am displeased with the proposed plan to dramatically increase flights at OLF. The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was relatively complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% use projection of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected.

1.a. Thank You
4.o. Classroom Learning Interference

Coupeville, WA 98239

I want to make it clear that I support our Navy, and my extended family includes many military personnel past and present. I have supported no previous petitions related to flight frequency and OLF even though I live within the flight path. As a former Coupeville teacher, however, I am displeased with the proposed plan to dramatically increase flights at OLF. The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states, "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and reanalyzed. I can assure you that the flights do interrupt valuable learning time, and they disrupt student sleep. I appreciate that the Navy is now publicizing scheduled flights, but I am concerned that the increased level is untenable for student learning and health.

Custer, WA 98240

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Custer, WA 98240

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Custer, WA 98240

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Custer, WA 98240

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Custer, WA 98240

The two most dangerous aspects of flying are the approach, landing and takeoff — in other words most of the OLFC flight path. The risks are significant (a) because of unrestrained and major encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of FCLP standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes exacerbated by the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs to a suitable 21st century off-Whidbey site.

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Custer, WA 98240

1.a. Thank You

13.a. Environmental Justice Impacts

I often hike in the Deception Pass area and I have noticed the deafening sound of the navy jets on almost every single occasion. Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.

Custer, WA 98240

1.a. Thank You
4.j. Other Reports

I often hike in the Ebey's Landing area. These noises are deafening. The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruction has to be credibly revised to properly characterize the real impacts.

- 1.a. Thank You
- 4.o. Classroom Learning Interference

Custer, WA 98240

Whidbey Island is a beautiful place. I know many friends and families there. The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states, "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and reanalyzed.

Custer, WA 98240

1.a. Thank You
4.p. Sleep Disturbance
4.r. Nonauditory Health Effects

This island has many beautiful features. I grew up in a military family and in my experience, the military takes first and asks later if at all. The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the “percent probability of awakening for all scenarios...” While music torture is still permitted under US law, the United National Convention against Torture defines torture as “any act by which severe pain of suffering, whether physical or mental...” Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.

Custer, WA 98240

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Too often we as a nation have given permission for military work without understanding the long term environmental impacts. Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the related past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of the impacted wells. Leakage of PFAS in storage or their use in a crash event is a hugely relevant environmental impact that must be addressed. And the public must be given the opportunity to comment.

Custer, WA 98240

1.a. Thank You
7.c. Noise Disclosure

Island County has unconscionably ignored the Navy's 2005 AICUZ land-use directives for Outlying Field Coupeville, especially as reflected by construction permits issued in Noise Zone 2 areas, where the AICUZ stipulates no residences should occur, as well as other land uses. Whether due to the County's willful intent to ignore or due to lack of Navy assertiveness, it aptly demonstrates the meaningless and ineffectiveness of the AICUZ and similar land-use provisions in the DEIS. Given the alternatives under consideration in the DEIS, the Navy should immediately advocate that the County place a moratorium on all construction permits not compatible with the 2005 AICUZ and DEIS land-use stipulations until the final EIS is approved.

Custer, WA 98240

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined "hazardous noise zone" threshold (i.e., an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month).

Custer, WA 98240

The Navy's DEIS does not adequately address the true environmental and public health consequences of planned Growler increases. Toxic Noise: The Navy wants to move ALL touch-and go Growler operations to the OLF. Operations would be increased up to 35,000 a year! The DEIS misrepresents the impacts of Growler noise. No measurements of noise were taken in communities – only computer modeling that averaged periods of noise with long periods of silence. Health harms: The DEIS ignores overwhelming scientific and medical evidence of harms caused by hazardous Growler noise. Growler noise has already created what one health expert labeled a “public health emergency that is literally killing people...” Children and Education: The DEIS states that increased Growler operations will cause “between 45-55 disruptions per HOUR in the Coupeville Schools”. And, children may experience some cognitive damage due to increased noise. Property Values: Options being considered by the Navy would subject properties from Engle Road and western Coupeville east to Saratoga Passage and from Penn Cove on the north to Puget Sound to inclusion in an Accident Protection Zone (APZ) 1 or 2. Property values will plummet. Even worse, all those APZ properties and many more beyond are in a Noise Zone 2 area, within which Island County may deny residential development. Drinking Water Pollution Coupeville's water supply well next to the OLF is contaminated with the Navy's toxic chemicals at concerning levels. An accident at the OLF could cause more contamination. Increasing operations by Navy Growlers will increase the threat to Coupeville's drinking water. Electronic Warfare: Nowhere do any Navy NEPA documents from the last 7 years discuss the risk of exposure to chronic downward-directed radiation from weaponized forms of directed energy aboard Growlers, to civilians, wildlife and habitat. OLF has a stationary electromagnetic emitter currently in use. Why is any mention or discussion of risks from exposure to electromagnetic radiation from Navy jets completely missing from all discussions of potential impacts? The draft EIS does not comply with mandatory NEPA requirements to fully analyze off-Whidbey training options (alternatives) for conducting touch and go practice. In a report of 1500 pages (over the NRPA recommended 300 pages) the Navy has submitted an unreadable document short on data and facts.

1.a. Thank You
 11.d. Per- and Polyfluoroalkyl Substances
 12.j. Property Values
 19.d. Electronic Warfare
 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
 2.c. Compliance with the National Environmental Policy Act
 2.k. Range of Alternatives
 2.n. Alternatives Considered But Eliminated
 4.d. Day-Night Average Sound Level Metric
 4.f. Noise Measurements/Modeling/On-Site Validation
 4.j. Other Reports
 4.o. Classroom Learning Interference
 4.r. Nonauditory Health Effects
 7.b. Land Use Compatibility and Air Installations Compatible Use Zones

Oak Harbor, WA 98277

1.a. Thank You
12.i. Housing Access and Affordability
12.m. Education Impacts

I fully support the presence of the Navy on Whidbey Island and fully support expanding our electronic attack capabilities. I also fully support both Ault Field and OLF FCLP's. Training and practice is critical to successful carrier-based operations around the world. Our air crews deserve the best training possible and Whidbey Island provides a unique, all-weather location that very closely simulates actual conditions encountered at sea. I have read through most, but not all of the draft EIS for the proposed Growler expansion and have the following comments; It is my personal belief the two main issues of most importance to the general public are sound levels and socio-economics. Sound Level: Based on the results of the Wyle study, I found the maps comparing No-Action with the Proposed Action(s) very useful. In particular, the comparison of the areas impacted by 65 dB and 75 dB sound pressure levels revealed (In my opinion) insignificant increase in the areas affected by air craft operational sound levels. The key exception to this is a reduction of the area impacted by >65 dB around the opening of Penn Cove. I would attribute this to minor changes of flight patterns used for the proposed operations around OLF. This is not an issue of whether we have operations or not. This is an issue addressing increased operations, and (again in my opinion) I do not see significant changes between the No-Action and Proposed Plans in terms of sound level. Full Disclosure: I live along Penn Cove in a (nearly) direct line with the OLF runway. I bought the house with full knowledge of the operations. I grew up in Oak Harbor and fondly remember the old sign along the highway (where the two A6's now stand) that read "Pardon our Noise - It's the Sound of Freedom!" The sound of Navy operations has never bothered me, and I do not expect a significant change under the proposed plans. I am sympathetic to our neighbors who live in close proximity to the aircraft operations but unless they purchased or settled the land prior to 1940, it has been common knowledge of the aircraft operations and the associated sound pressure levels in the affected areas. Socio-Economic: I believe any reasonable group of people would agree the proposed expansion will generate both full-time and part-time employment opportunities in the area as well as high-value construction contracts. In my opinion and unless I missed it in the draft EIS, the one area where the Wyle study falls short is that of housing and schools. The Wyle study offers estimates of increased housing needs as well as increased number of dependents entering school. In general, I view modest and managed increases in population (such as the current Navy proposal) to the area as a positive impact to the local economy, but this brings to light two important issues facing our community - expanding/funding schools and rising rents. Schools: As I write this comment today I hold a ballot to renew a school levy that bears with it a small increase in my property taxes. I have a child in Oak Harbor public schools and will likely approve such a measure, but the large fixed-income retirement community may find it harder to do the same. For the sake of completeness, I firmly believe it is prudent the Navy present a plan jointly prepared with the affected school districts that, at a minimum 1) looks forward to the funding requirements needed to assimilate the projected increase in dependents attending area schools and 2) Identifies the future funding sources that would be borne by the community and that provided through the federal government via the Navy. Housing: Supply and demand economics dictate that in a constant supply state an increase in demand will increase rents. I recently read an article on the Homeless

Point-in-Time count where one local family was highlighted: Both husband and wife work. Their rent was increased to a point where they bought a used RV and now live in that on a friend's property. They are on the fortunate side of the raising-rent problem. Even though I do not attribute recent rent increases directly to the Navy, the proposed expansion plan will put pressure on the market. There will be winners (landlords) and losers (low income families). To that end, I also think it prudent the Navy engage with the affected municipalities, Island County, and local charitable organizations to address 1) the supply of non-base housing that will be taken up by the additional families, 2) the potential impact to the rental market of such, 3) the efforts the Navy (and by direct extension the federal government) should and can take to ensure housing remains affordable for working families in our community 4) the amount of new on-base housing forecast to be built, and 5) the issue of non-Navy families renting Navy housing that are not subject to property tax (more of a school funding issue. Unless I missed it in the draft EIS, the above issues have been addressed thoroughly. To conclude, one could ponder if a private company proposed to build a business that brought with it the same increases in economic benefits, jobs, additional families, and additional school-aged children. Would that company be scrutinized the same way the Navy is? Would the Central and North Whidbey community open its welcoming arms, or demand due diligence on the potential socio-economic issues that could be exacerbated by their presence? I don't know the answer to this, but I would hope our municipal and Island County planning departments would treat the Navy in the same way they would a private firm. As stated, I strongly support the Navy and the proposed Growler expansion. Please look into addressing the socio-economic issues identified, above, and work closely with our local communities to jointly provide more analysis, impact and potential solutions. [REDACTED]

[REDACTED]

IN THE MATTER OF:
The Open House Public Meeting for the Draft Environmental
Impact Statement (EIS) for EA-18G "Growler" Airfield
Operations at Naval Air Station (NAS) Whidbey Island Complex

DATE TAKEN: Thursday, December 8, 2016

PLACE: Seafarers' Memorial Park Building
601 Seafarers' Way
Anacortes, Washington

TIME: 3:00 p.m. to 6:00 p.m.

REPORTED BY: Mary Mejlaender, CCR No. 2056
Likkell & Associates
Court Reporters & Legal Video
2722 Colby Avenue
Suite 706
Everett, WA 98201
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(425) 259-3330

- 1.a. Thank You
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.q. Potential Hearing Loss

1 PUBLIC MEETING

2 (3:00 p.m.)

3 (The personal identifiable information disclosure
4 statement was read by the following commenter.)

5 MR. [REDACTED]: I have read the disclosure
6 statement and I agree to that.

7 The main thing I want to relate today is the
8 aspect that we have had regulations all of our life about
9 noise pollution. And we've been asked to, in work
10 situations -- I worked as a shipwright for 35, 40 years, a
11 carpenter and everything, and all the tools that we use have
12 regulations to protect our hearing. I'm half deaf now
13 because in the early days we didn't have those regulations,
14 but we have worked hard to get those. Through labor unions
15 and through other ways of just common sense we need to
16 protect our hearing and knowledge.

17 When the EA -- EA-18Gs fly over everything stops.
18 You cannot hear a person two feet away from you. You cannot
19 be on the telephone. You cannot hear anything. It's that
20 loud. And I find it interesting that the last couple weeks
21 here we haven't had any jets -- any of the Growlers flying
22 over very much, and I'm thinking that's maybe to -- so the
23 people aren't too upset about the excessive noise they make.

24 Everybody that I talk to, when the plane is
25 flying over they say that's way too loud. And we have to

1 protect ourselves. And it's we the people who have brought
2 these issues before -- before congress, before our health
3 and education committees, and tried to get people to wake up
4 to the fact that some things are just too loud. This is one
5 of those items, and it's the only item I really want to
6 address at this time.

7 Oftentimes we will get people who say to us,
8 well, if you don't like the noise, move. Well, that's not
9 the issue. The issue is the noise is bad for all people,
10 not just those who don't like the airplanes flying over
11 immediately. Thank you.

12 * * *



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name
- 2. Organization/Affiliation CITIZEN OF PLANET EARTH
- 3. Address ANACORTES WA
- 4. E-mail
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

Please print • Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Letter to Naval Air Station in regards to the EIS and the impact that the EA-18G Growler Jets are having on the citizens of Anacortes, Fidalgo Island and Whidbey Island.

All my life, I have been told to keep the noise level down. I was not a noisy person, but on the 4th of July I like to make noise. My earliest experience of fireworks involved waiting for a firecracker to go off and it didn't...I waited and waited ...2 whole minutes and then proceeded to walk up to it and started to lean over and relight it when it went off. It was way too noisy! My first car had dual exhaust; the police officer said they were too noisy. Cutting firewood with a chainsaw was too noisy. Years later I wore protection. I have worked as a shipwright and carpenter for over 35 years. Safety regulations required me to wear hearing and facial protections.

I was reared on a farm in Iowa, sun screen protection was not an option...otherwise you ended up with a farmer tan. Every summer I would get way too much sun. My father told me to wear a hat or else I would lose my hair and end up bald.....Well, as you can tell, I did not wear a feed cap.

Over the years, we have required and pushed for safe working environments...thanks to "We the People" ! We have spoken out and asked through Labor Unions that our right to work in safe conditions be met. We are voicing our concerns today. When the EA-18G flies, we have to stop talking, until they are way past! Within a few minutes they are back, flying over our environment and we have to stop talking, again. It is way too loud for people and cannot be healthy for the animals, and birds that inhabit this area as well.

This is not a situation where by comments that often arise throughout our city..."if you don't like it ..Move." It is a situation where it is not healthy for any of us. It is way too loud!

Thank-you

[REDACTED]

[REDACTED]

[REDACTED]

Anacortes, WA 98221

Fairfield, IA 52556

- 1.a. Thank You
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments

I have had the good fortune to visit, and have my breath taken away by, the Olympic peninsula and Olympic National Forest. Because of this, I ask that you provide a 45-day timeline extensions for public comment and input. The Navy's Draft Environmental Impact Statement (DEIS) has problems and needs more thorough review.

February 9, 2017

EA-18G Growler EIS Project Manager
 Naval Facilities Engineering Command (NAVFAC) Atlantic
 6506 Hampton Boulevard
 Norfolk, VA 23508

Attn: Code EV21//SS

Re: Comment on Draft EIS for the EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex

Dear Project Manager:

Thank you for the Public Hearing and the opportunity to comment on the Draft EIS. Please include my comments in the consideration of the final draft of the EIS.

It appears that the decision has been made to expand operations at Whidbey NAS and add additional aircraft. You are now considering the impacts of the decision without an alternative of "no action" or moving these operations to a different base that would have less of an impact on a dense residential population.

The Draft EIS only addresses takeoff and landing training and doesn't include other flight training associated with the base such as low level flying in the surrounding mountains and getting the required hours in the airplane. The EIS should address all operations at the base which will increase 46% to 47% and should address all flight patterns and not just FCLP (Field Carrier Landing Practice) patterns that are followed by pilots most of the time, but not always.

The noise associated with the Growler aircraft is my concern. The Sound Exposure Level used in the study represents noise energy from a single event **such as would occur from a 1 second flyover which is too short of a time.** A noise level of 65 dB use in the report is a 24 hour cumulative noise metric. The Maximum Weighted Sound Level reached during an event should have been used for determining disturbance. It was 93 dB which, the report shows, is higher than a heavy truck at 50 feet. Living in the surrounding area is going to be like living in the middle of an interstate freeway. It would be interesting to know if the engine power settings used during the tests were the same used during daily practices. **FCLP's should not be permitted between 10:00 pm and 7:00 am.**

Engine testing noise is not addressed. I live in Mount Vernon which is 15 air miles from NAS Whidbey and it is audible in my house which is 3 blocks from the Skagit Regional Hospital. Also, at times, the windows rattle in my house from passing aircraft, although only once since the comment period for the Draft EIS. The number of flights seem to be restricted at this time.

I have lived in Mount Vernon for over 50 years and have always been proud of NAS Whidbey and even objected when the Navy proposed to close it down many years ago. Now, with much louder aircraft and the increase in the number of the aircraft, I some-what regret that support.

- 1.a. Thank You
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.k. Range of Alternatives
- 2.l. No Action Alternative
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation

Page 2 of Draft EIS Comments

I encourage doing nothing at this time and continue the existing level of operations. Perhaps FCLP should be moved to another base where the noise would not affect so many people. Please closely monitor all flights for adherence to set elevations and routes to minimize disturbance to the public.

Thank you for your service to our nation and consideration of these comments.

Respectfully yours,

A large black rectangular redaction box covering the signature of the sender.

Mount Vernon, WA 98274-04020

Two lines of black rectangular redaction boxes covering contact information, likely a phone number and email address.

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February 9, 2017

EA-18G Growler EIS Project Manager
Naval Facilities Engineering Command (NAVFAC) Atlantic
6506 Hampton Boulevard
Norfolk, VA 23508

Attn: Code EV21//SS

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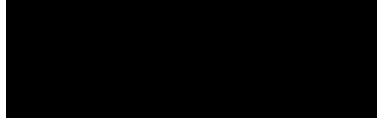
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1.a. Thank You

Tacoma, WA 98404

My father served on the USS Marcus Island from 1941-45. The navy is a much needed form of our protection, and should not be reduced, as our lovely president wants. I flew Hueys in Vietnam, but was so happy that Navy pilots were always close to provide air support when the sand hit the fan. Napalm was my favorite support.

port townsend, WA 98368

To: EA-18G EIS Project Manager Naval Facilities Engineering Command (NAVFAC) Atlantic – Attn: Code EV21/SS 6506 Hampton Blvd. Norfolk, VA 23508 Dear Sir/Madam, Thank you for extending the comment period to February 24, 2017. I am extremely concerned about the proposal to expand the growler program on Whidbey Island. We moved here 2 years ago for the quality of life we found...for the quiet, for the wilderness and the small beautiful towns and rural areas. I am constantly grateful for the silence, and it is one of the most important factors in my mind when choosing a place to live. I am very disturbed to hear that we may lose the very qualities of this area that brought me here. I am particularly upset about the potential impact to wildlife, and specifically to marine mammals. Sound is critical to their communication and to their life. I am afraid there will be irreversible damage. Here are the details: Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its “study area” is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because all flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects. 2. Impacts to cultural and historic sites are not adequately considered. The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as “normally unacceptable” and above 75 as being “unacceptable.” (<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/>) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). 3. Piecemealing projects to avoid analyzing cumulative effects is illegal. The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions: 1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft; 2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57

- 1.a. Thank You
- 1.c. Segmentation and Connected Actions
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property
- 12.n. Quality of Life
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.e. Public Involvement Process
- 2.h. Next Steps
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.i. Other Noise Metrics Not Currently in Analysis
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 8.a. Cultural Resources Area of Potential Effect
- 8.b. Section 106 Process
- 8.c. Noise and Vibration Impacts to Cultural Resources

Growlers that replaced Prowlers); 3. 2012 EA (26 Growlers including 5 from a reserve unit); 4. 2014 EA (Growler electronic warfare activity); 5. 2015 EIS discussing electronic warfare training and testing activity; 6. The current 2016-2017 DEIS (36 Growlers); 7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160. Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville alone went from 3,200 per year to a proposed 35,100 in 2017. That's more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are “no significant impacts.” The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) “...does not allow an approach that would permit dividing a project into multiple ‘actions,’ each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.” The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability. 4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water. 5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is “turning out fully trained, combat-ready Electronic Attack crews.” 6. The current comment period on a Draft EIS should not be the last chance the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The “30-day waiting period” proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts. 7. There are no

alternatives proposed in this DEIS that would reduce noise. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant."

(<https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities. 8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative. 9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010 with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula. 10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas. 11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in

Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are “presumably habituated” to noise do not apply when that noise is sporadic and intense. 12. Commercial airport noise standards should not apply to military jets because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy’s benefit, but does not benefit the public. 13. The Navy’s noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers. 14. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software “...do not properly account for the complex operational and noise characteristics of the new aircraft.” This report concluded that current computer models could be legally indefensible. (<https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>) 15. The Navy describes its activities using the term “event,” but does not define it. Therefore, the time, duration, and number of jets in a single “event” remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public’s ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them. 16. New information that was not disclosed in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service’s draft permit, viewable at: <https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with “...opening day and associated opening weekend of Washington State’s Big Game Hunting Season for use of rifle/guns.” While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control. 17. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental

Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed. 18. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets. 19. No mitigation for schools: The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to not allow a comment period on the Final EIS would be unlawful. 20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period. 21. Crash potential is higher: With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable. 22. Contamination of drinking water in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses

have been done is not significant. 23. Navy knew about contamination in advance: It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls “historic” use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of “identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam].” Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: “Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e).” The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word “perfluoroalkyl” or “PFAS” is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals.

(<https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&Material-Emerging-Risk-Alert-for-AFFF.pdf>) 24. No mention of contaminated soil is found in the DEIS: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water. 25. Impacts to wildlife have been piecemealed: It does not make sense to separate impacts from just one portion of an aircraft’s flight operations and say that’s all you’re looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy’s study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual “events,” which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process. Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted. 26. Pages of boilerplate language do not constitute analysis of impacts to wildlife: Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife.

Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is “greatest during flight operations.” However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is “highly unlikely,” largely because “no suitable habitat is present.” This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly likely that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area. 27. Old research cited but new research not: In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (<http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract>) The DEIS also failed to consider an important 2014 study called “Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds,” (<http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html>) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the best available science. This DEIS fails that test. Thank you for considering these comments. Sincerely, [REDACTED] Port Townsend WA 98368

Victoria, British Columbia V8R2V3

1.a. Thank You
12.j. Property Values

I am totally against the addition of Growlers. The noise is bad enough with the present count. I fear that a great deal more noise is going to have a negative impact on the value of my home.

Everett, WA 98201

Dear EA-18G Growler EIS Project Manager, The Olympic Peninsula and San Juan Islands are a place of refuge and beauty. My family frequently visits in order to escape noise, crowds and traffic. We enjoy camping and hiking, beach combing and just sitting in nature's splendor. Lake Quinalt, Hurricane Ridge, Shi Shi Beach, and the Olympic Rainforest are all ecologically sensitive areas, with flora, fauna and sea life that deserve our continued protection. The inhabitants of these areas are well known for their sustainable life styles. To invade such sensitive areas with deafening, fuel guzzling jets, producing enormous amounts of CO2, endangering bird habitats, as well as physically stressing out citizens who live there full time, part time or visitors coming to glimpse a portion of paradise would be both dangerous and unconscionable. While sitting on the beach at Deception Pass, with visitors from North Carolina, Navy Jets swooped down creating such an enormous roar that we couldn't even hear each other talk, despite sitting close on a driftwood log. Being sensitive to noise due to hearing loss and tinnitus, I can only imagine how dealing with this on a frequent basis could be physically and psychologically damaging. Please do not allow the Navy to proceed with this project. Sincerely, [REDACTED] Everett WA

- 1.a. Thank You
- 1.d. General Project Concerns
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.r. Nonauditory Health Effects

Coupeville, WA 98239

1. In the opening summary of "Fighter Aircraft Performance Modeling, Simulation, and Flight Testing for Research and Development" by Terry E. Greene & R. L. Spicer of the Rand Corporation published in 1968, it states "Modeling and simulation are useful to R&D decision making, but must eventually be set aside in favor of experimental and demonstration testing of hardware." It is illogical to use estimated data when actual data is readily available. Actual sound data should have been used for the Navy EA-18G EIS. Or at a minimum, it should have compared actual sound data to the modeling data that the entire report is based on. 2. There is no mention of afterburner use in the report. Afterburners are used periodically to simulate actual carrier landings. 3. Due to aircraft noise, current property values in the area of OLF are lower than comparable property on other parts of Whidbey Island (significantly lower near the field). Any increase in operations will reduce property values more. An increase of operations of over 500% will cost property owners an unthinkable amount and in some cases may reduce their property value to near zero. 4. The sound analysis used Coupeville Elementary school as an impact point in the report. Coupeville High School is significantly closer to OLF. The impact at the HS would be appreciably more. 5. The excessively long length of the report makes it hard for the public to use as a tool for understanding. 6. Aircraft flight paths at OLF depicted on various figures in the report are not consistent. For example, see figure 4.2, page A-39 and figure 8.3, page A-120. The sound contours will be different for the different scenarios and alternatives but the aircraft flight paths should not vary. 7. Nothing was included in the report about the affect that increased flight operations would have on water quality, especially in central Whidbey where the only water source is from wells tapping into the underground aquifer. The aquifer has already been contaminated by the Navy. And with the continued use of these hazardous materials by the Navy, any increase in operations will have a direct increase in the probability of future contamination. 8. The current flight path for OLF on runway 14 for daytime flights minimizes the impact to the population by flying downwind near the airfield, not over the shoreline where many of the homes are located. See figure E-16, page A-314 of Appendix A. The existing nighttime flights also minimizes the impact on the population by flying downwind over the water between Whidbey and Camano islands and extends north over Penn Cove. See figure E-17, page A-315 of Appendix A. This flight path has been used since at least the mid 1960's. The proposed flight path for OLF on runway 14 is to fly directly over the shoreline for both day and night flights thus maximizing the sound impact to the community. See figure E-18, page A-316 and figure E-19, page A-317. Mention or discussion of this change or the rationale for it could not be found anywhere in the document. 9. Because of the proposed change in the flight path for runway 14 at OLF, several miles of shoreline and the homes along this shoreline will unnecessarily be in a new Accident Potential Zone (APZ). See Figure 4.3-2, page 4-118 of Chapter 4. 10. The impact of having to establish an Accident Potential Zone in such a large part of central Whidbey will have an adverse affect on both the psychological and financial well being of the community. See page 4-116, 117 & 118.

- 1.a. Thank You
- 1.c. Segmentation and Connected Actions
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.d. Arrivals and Departures
- 3.e. Field Carrier Landing Practice Patterns
- 3.f. Field Carrier Landing Practice Operation Totals
- 3.i. Runway Operating Hours and Flight Schedules
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.o. Classroom Learning Interference
- 5.a. Accident Potential Zones

1.a. Thank You

port townsend, WA 98368

I like peace and quiet.

Coupeville, WA 98239

I live in the area where Navy aircraft overfly on their way from Ault field to OLF and have an interest in noise abatement and dangers of aircraft performing takeoff and landing operations in my area.

- 1.a. Thank You
- 4.t. Noise Mitigation
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Coupeville, WA 98239

1.a. Thank You

1.b. Best Available Science and Data

Training is critical to saving lives; pilots and crew that trained best were most likely to stay alive during non-normal operations. While on Coral Sea as EOD officer I witnessed incidents where excellent training obviously saved lives. The need is great, there is also a balance between the needs of the Navy to train and protect and the needs of the surrounding population in the training areas to live a quiet and peaceful life. Striking a balance between the competing needs is also critical. I wish to review the EIS for internal consistency and assure that up to date assumptions and modeling techniques are used so that a balance of needs is more easily obtained.

port townsend, WA 98368

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

Would prefer fewer, not more, flights in our rural area.

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017

SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name _____
2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
resident
3. Address _____ *Coupeville WA 98239*
4. Email _____

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 6.b. National Ambient Air Quality Standards Compliance
- 7.d. Recreation and Wilderness Analysis and Study Area
- 7.g. Ebey's Landing National Historical Reserve
- 7.i. Deception Pass State Park and Other State Parks
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquifer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

I have a 50 year history living full and part time on WHIDBEY.

- #1. The growlers are much louder than previous aircraft - going back to A6A's. I never hurt when other A/C flew over, or near my house. EARS HURT now.
2. Noise prevents outdoor activities we have 5 STATE + NATIONAL PARKS on Whidbey that will be hugely affected.
3. Our children's school day will be interrupted every hour. TEACHERS CAN'T HEAR & WELL IN CLASSROOM, CHILDREN BECOME DISTRACTED, LEARNING IS LOST. OUTDOOR ACTIVITIES - ie TRACK, GARDENING, FOOTBALL, RECESS. ALL EXPOSE PEAK CHILDREN TO HARMFUL NOISE. EIS DOES NOT ADDRESS ACCURATE SOUND/DECIBEL RISKS TO HEARING + LEARNING.
4. EIS DOES NOT ADDRESS FUEL DUMPING AND FIRE FIGHTING PRACTICE USING PROS INCREASES TO ENVIRONMENT. THIS IS AN AGRICULTURAL AREA AND THE PACIFIC FLYWAY FOR MIGRATORY BIRDS. ALL THESE TOXINS WILL BE ADDED TO THE ENVIRONMENT - EIS DOES NOT INCLUDE ANY STUDIES ON THIS EFFECT.
5. EIS DOES NOT ACCURATELY OR SIGNIFICANTLY CONSIDER OTHER SITES THAT COULD BE USED FOR GROWLER TRAINING. WHY? NO ONE COMMUNITY SHOULD BEAR ALL THE HEALTH, SECURITY, ENVIRONMENTAL, AND ECONOMIC RISKS. MORE ALTERNATIVES NEED TO BE EXPLORED.

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

Coupeville, WA 98239

When we purchased our home 12 years ago, we purposely avoided the area near the OLF to avoid noise issues. We looked forward to retiring in a peaceful and quiet location. Recently the path to the OLF seems to have changed to go over our home. Flights over our home at night can be as late as midnight. Flights from 9pm onwards to midnight impact my ability to get a good night of sleep prior to commuting at 5am the next morning. In addition to the health impacts due to lack of sleep, we may not realize the value in our property if we decide to sell and move away from the noise. This is a financial impact to our retirement plans. We have friends who live much closer to the OLF, who experience a much more extreme impact. These friends will move away from the island, if the decision to increase the flights goes ahead. This will be a negative social impact for us as we lose our close friends. This will also cause a negative impact on the financial state of the community. Please reconsider plans to increase OLF activity as this will severely impact an amazing community. Thank you, [REDACTED]

- 1.a. Thank You
- 12.c. Socioeconomic Impacts
- 12.j. Property Values
- 12.n. Quality of Life
- 3.a. Aircraft Operations
- 3.i. Runway Operating Hours and Flight Schedules
- 4.p. Sleep Disturbance

U. S. Navy
 EA-18G EIS Project Manager (Code EV 21/SS)
 NAVFAC Atlantic
 6506 Hampton Blvd.
 Norfolk, VA 23508
 e-mail: WhidbeyEIS@navy.mil
 Submitted online at: <http://whidbeveis.com/Comment.aspx>

February 23, 2017

Greetings,

I wish to thank you for the opportunity to submit my comments related to the EIS currently being conducted for EA-18G Growler Airfield operations at Naval Air Station, Whidbey Island, WA. As you can imagine, I am not hopeful you are listening, but I feel compelled to submit my comments anyway.

I am deeply concerned about the continued and proposed increased use of the Coupeville Outlying Field by the U.S. Navy. The new jets are louder and they are flying far more often, sometimes until well after midnight during the work week; they disrupt people's lives as well as the local economy which is reliant upon tourism; they permanently damaging our hearing with decibels far exceeding safety levels; and they endanger many parts of the environment.

As a resident of the North Beach/Fort Worden neighborhood in Port Townsend, since 1989, I have made numerous complaint calls over the years to the Navy and can observe and hear the planes at OLF not only from the beach and outside, but also from inside my home on a regular basis.

The major noise impact in the Port Townsend area is when the planes turn from south to east to north, approaching the OLF runway. At this time, the noise is extremely loud, and I have observed it several hours after midnight on countless occasions. I have definitely noticed significantly louder noise since 2009 when the EA-18G Growlers have been replacing the EA-6B Prowlers.

Another impact is various fly-overs in the Port Townsend and Fort Worden area. For many years, I have observed the P-3 Orion prop planes circle through the Admiralty Inlet area, quite close to, and occasionally directly over the City of Port Townsend. While noisy, they are much quieter than the P-8 Poseidon jet, which is replacing them. The increased flights to the western areas of the Olympic Peninsula also impact our area. I have been out at the coast, in the National Park and have been assaulted by the noise from the planes. Animals were disturbed as well as the people there.

NOISE: The Navy considers any sound above 84dB as noise hazardous, or having the potential to cause hearing loss. The F/A-18E/F Growler aircraft emits, a maximum of 150 dBs, high enough to result in permanent hearing loss. Actual noise levels and frequencies should be determined by measurement throughout the affected area, not just in the immediate vicinity of the OLF. This includes throughout central and north Whidbey, including Coupeville and Oak Harbor, all affected State Parks (Fort Casey, Fort Worden, Fort Flagler, fort Ebey, Deception Pass, etc.) and the affected portion of Olympic National Park, affected portions of Skagit County, Jefferson County including Port Townsend, San Juan County, and on the water where boaters may be subjected to the noise. Real-time high noise events experienced with each touch-and-go operation should be measured rather than averages over periods when the jets aren't even flying.

The economic impacts of noise generated by Growler jet operations is not addressed in the EIS. These include reduction in property values; reduction in income due to lost work opportunity and productivity (e.g., inability to perform time dependent farm work due to Growler noise), economic health costs, and reduction in recreation and tourism.

The adverse noise impacts to wildlife has not been adequately studied and disclosed. In particular, impacts in areas where there are aggregations of birds should be determined, including Crockett Lake, Smith and Minor Islands, and areas of Puget Sound. This includes not just resident individuals, but periodic visitors (e.g., migrating birds). Noise impacts to listed species which may not occur in large aggregations, particularly Marbled Murrelet, also need to be considered. Due to the frequency profile of the sound made by Growler jets, there is also the potential for noise impacts to marine mammals. Additionally, impacts of noise on livestock also need to be disclosed.

HEALTH: Aircraft noise can permanently damage hearing, raise blood pressure, and harm livestock and wildlife, and children have greater susceptibility to harm. Studies include those by: the World Health Organization, the US Department of Transportation, and the US Environmental Protection Agency. The EIS does not consider the variable ages of the affected human population especially youth. There needs to be particular consideration of travelers in motor vehicles, boaters, people recreating at all of the affected State Parks, etc. Results should be presented in terms of impacts to individuals (i.e., exposure thresholds resulting in hearing loss) and populations (i.e., such as the increased rates of cardiovascular disease).

The Navy has not disclosed any existing data regarding fuel dumping it may have and, if there is none, disclosed this lack of data. Second, a formal monitoring program needs to be put in place that will log and record instances of fuel dumping, including where the dumping occurred, jet speed and elevation, and how much fuel was dumped. This system should operate with a system allowing members of the public to report fuel dumping. These results need to be evaluated both in terms of human and animal (livestock and wildlife) health and effects on vegetation, including forest trees. Investigation of impacts of fuel dumping on forest

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 10.j. Plants
- 10.l. Bird Migration
- 10.m. Impacts to Marine Species and Habitat
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)
- 18.a. Climate Change and Greenhouse Gases
- 18.d. Washington State Greenhouse Gas Goals
- 19.d. Electronic Warfare
- 2.n. Alternatives Considered But Eliminated
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.k. Comparison of the Prowler to the Growler
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 6.f. Fuel Dumping
- 7.e. Impacts to Recreation from Noise/Operations
- 8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

canopies also needs to consider possible impacts of wind created by low flying jets. This review must also consider impacts to aquatic systems, including both freshwater and marine waters that may be receiving dumped fuel.

The impacts to human and animal health from electromagnetic radiation from antenna farms and radar installations needs to be investigated and disclosed, as it is a part of this particular expansion.

SAFETY: Flights over populated areas pose potential safety problems. Pilots and residents are at risk when the Navy uses this short, outdated World War II era OLF. Keeping it open will cause some of the people of the North Puget Sound area permanent hearing loss; air pollution from fuel dumps in the air; risk of jets crashing into civilians' houses.

ENVIRONMENT: The OLF sits next to Ebey's Landing National Historic Reserve, a 24,000-acre National Park of environmental, cultural, and historical significance and an important wildlife and migratory bird habitat, supporting recreational/tourist use and appreciation. Does this EIS fully consider the real effects of OLF operations on these significant values? Air Pollution and Climate Change Pollution from jet aircraft releases harmful greenhouse gases that will contribute to climate disruption.

VEGETATION MANAGEMENT: The EIS needs to address weed control around OLF, particularly of Canada Thistle, blackberry & Scotch Broom. There are several rare plants and communities present on NAS Whidbey including forest at Rhododendron Park, prairie remnants on Smith Prairie (including the presence of the federal and state listed Golden Paintbrush), the rare forest types along Whidbey's west coast, Admiralty Inlet Natural Area Preserve, and various plant communities in both the affected State and National Parks. Without active management, degradation is predictable.

GEOLOGIC IMPACT: An examination of the possible impact of aircraft noise and ground vibrations on the various island slide areas including in the Ledgewood Beach community on Whidbey Island and the bluff collapse at Chetzemoka Park in Port Townsend.

ALTERNATIVES TO OLF: The OLF was not used for the second half of 2013, during which time training has been conducted elsewhere. Less populated areas should be considered for Touch & Go traffic required for training. This would make it safer for everyone including the Navy families living under the planes. Yakima is an option with airfields and facilities to accommodate staff. It is less than ten minutes by growler to eastern WA. & these planes all ready use this area regularly. Personally, I wish it were not necessary to disturb ANYONE or ANYTHING by the Growler noise. Places less populated by people are still inhabited by many other species.

I strongly recommend the No Action Alternative, for the reasons stated above. In the event that the No Action Alternative is not chosen, I recommend Scenario C for the remaining alternatives.

Thank you for the opportunity to contribute to this Environmental Impact Statement.

Sincerely,

[REDACTED]

Marysville, WA 98270

Seriously, in these days of trouble in our country and with climate change a huge issue, why would the Navy need to use the Olympic Peninsula as a training ground? There's absolutely no good reason. As well, they would be violating the rights of the Native Americans and their sovereign space. Further, these areas, including Whidbey Island, have people, birds and animals living in them. The noise from the jets, the electromagnetic emissions from the ground equipment and the shear stress of these events will cause deafness and stress related health problems for the people and will decimate already stressed animal and bird populations. Really, there's no reason for these types of operations. We already have the largest (by far) military in the world with the highest budget. This is overkill and just a waste of taxpayer monies as well as unhealthy for all involved.

- 1.a. Thank You
- 1.d. General Project Concerns
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.a. Purpose and Need
- 2.j. Costs of the Proposed Action
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 9.a. Consideration of Tribes

Langley, WA 98260

Property Values: Options being considered by the Navy would subject properties from Engle Road and western Coupeville east to Saratoga Passage and from Penn Cove on the north to Puget Sound to inclusion in an Accident Protection Zone (APZ) 1 or 2. Property values will plummet. Even worse, all those APZ properties and many more beyond are in a Noise Zone 2 area, within which Island County may deny residential development.

1.a. Thank You

12.j. Property Values

7.b. Land Use Compatibility and Air Installations Compatible Use Zones

Langley, WA 98260

- 1.a. Thank You
- 2.c. Compliance with the National Environmental Policy Act
- 2.k. Range of Alternatives

The draft EIS does not comply with mandatory NEPA requirements to fully analyze off-Whidbey training options (alternatives) for conducting touch and go practice. in a report of 1500 pages (over the NRPA recommended 300 pages) the Navy has submitted an unreadable document short on data and facts.

Langley, WA 98260

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Drinking Water Pollution Coupeville's water supply well next to the OLF is contaminated with the Navy's toxic chemicals. Private wells near the OLF may be at risk, if not already contaminated. An accident at the OLF could cause more contamination. Increasing operations by Navy Growlers will increase the threat to Coupeville's drinking water as well as the drinking water on all of Whidbey Island since there is only one aquifer. People, animals, and vegetation are at risk.

Langley, WA 98260

- 1.a. Thank You
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects

Children and Education: The DEIS states that increased Growler operations will cause "between 45-55 disruptions per HOUR in the Coupeville Schools". And, children may experience some cognitive damage due to increased noise. This right there should have shut down this plan. Who in their right mind would think children can learn in this kind of environment? That teachers can teach in this kind of environment? Not to mention the health risks of constantly being bombarded with this kind of noise.

Langley, WA 98260

1.a. Thank You

2.n. Alternatives Considered But Eliminated

I love having the Navy on our island and have nothing but the utmost respect for our military. I understand there needs to be training, but not at this level and with the results that the proposed increased training will produce. The noise is already unbearable when it's going on. An increase is harmful on so many levels, many of which I have delineated in other emails to you. Please do not subject the citizens of Whidbey Island to the horrific effects this plan will cause. There are other places to do your training.

1.a. Thank You

Austin, TX 78752

OLF serves all US DOD Services. There are national security programs conducted there.

Coupeville, WA 98239

We are dismayed to hear of the proposed expanded Growler airfield operations at Coupeville OLF. Specifically we have concerns about health effects from noise and low frequency sound, particularly on students, hospital patients and wildlife, let alone the rest of us. We are concerned about the effect on tourism around Coupeville, including Ebey's Landing, Fort Casey State Park, etc. Also concerned about the impacts of noise on children's and family's health at Rhododendron Park ball fields, impacts on commercial properties and agriculture. We don't see evidence of response to reports of aquifer and well contamination; this is a huge issue for all of us. My father-in-law was a navy pilot in Korea. It's not that we don't appreciate the necessary training for our current generation of pilots, it's just that we wish our concerns to be addressed, and we wish the burden of the Growler training was spread in additional parts of the country, and not concentrated all on Whidbey Island. It's a big burden for the residents here, and all the other affected areas further out (Lopez Island etc) both in terms of health and well-being and property values, as well as the impact on marine and terrestrial wildlife. We are all interconnected.

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.h. Tourism
- 2.n. Alternatives Considered But Eliminated
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 7.j. Impacts on Outdoor Sports

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017
SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name [Redacted]
2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military) [Redacted]
3. Address COUPEVILLE WA 98239
4. Email [Redacted]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 10.b. Biological Resources Impacts
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 3.d. Arrivals and Departures
- 4.m. Supplemental Metrics
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.b. Overtasking/Overloading of Air Traffic Control at Ault Field and Elsewhere

- Outdoor recreation limits, as well as children’s and family’s health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy’s prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name _____

2. Organization/Affiliation _____

3. Address _____ Oak Harbor WA 98277

4. E-mail _____

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

At the least,
 * FCIP should be split evenly between OLF + Ault Field
 or more @ OLF * I prefer more or almost all at OLF *

* TRY TO USE SIMULATORS as much as possible

* Older/existing housing was not built to today's noise abatement standards + growler noise isn't "muffled" → difficult for residents to watch TV or talk on phone when jets fly
 Pattern of flight is over my property!!! *come visit me there are no

I LIVE IN HOUSE BUILT IN 1972

Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 12.n. Quality of Life
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 4.k. Comparison of the Prowler to the Growler
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

Words I can write that would let you know

The difference in sound between growlers + A-bs + EA-bs
I have lived on property more than 30 years and
I know. ~~the~~ Horses ~~are~~ in pastures would RUN
away to try to get away from noise of new jets (EA-18s)
No longer have these animals due to
stresses: ^{always} ~~some~~
• When lawnmowing (which is ^{always} somewhat noisy)
oftentimes I just stop and cover my ears
when growlers pass by.

A-bs had noise --- but NOT like growlers!
EA-bs " " = but

Also we live in a "Bowl type area" and noise
seems to "go ~~up~~ around in a circle" -- Think of fans
in a stadium at a football game "

• Please try more research (chevrons?) to see
if sound can be muffled on
acceleration & on the turns.

Sorry
this is
messy
writing

Thank you for your time in reading this
I support our military +
Thank the personnel for watch over us
and trying to keep us safe from
outside enemies!

God Bless America!

For more information, please visit the project website at whidbeyeis.com

Please print

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YOUR INPUT MATTERS

Seattle, WA 98133

1.a. Thank You

2.n. Alternatives Considered But Eliminated

I would like to move to Oak Harbor; however this much additional noise is a definite deterrent. I think these activities should be limited to less populated areas.

EA-18G EIS Project Manager
 Naval Facilities Engineering Command (NAVFAC) Atlantic
 Attn: Code EV21/SS
 6506 Hampton Blvd
 NORFOLK VA 23508
 USA

27 January 2017

EA-18G GROWLERS ON WHIDBEY ISLAND

For the past 40 years, I have lived on a rise of land facing Haro Strait near the University of Victoria in British Columbia. Increasingly, the jet noise coming across the strait is very disturbing, particularly at night. Over the years it has gotten worse and worse. In the summer months, we have to close our deck door and windows until it ceases. The low frequencies are sometimes unnerving and often alarming—I seem to have an uncontrollable instinctual response of flight/fight. We don't know what is happening for a few moments: is it friend or foe? It makes me angry and rather than giving me a sense of protection, it gives me a feeling of violation. For those who have been in war zones, I'm certain it brings back a flood of emotions, ranging from alarm to depression.

The Aircraft Noise Study for NAS Whidbey Island prepared by Wyle [ANS] states that the literature *suggests* (note: does not *prove*) that the 'startle' or 'fright' response ultimately habituates, however, this has not been my experience.

Furthermore, the ANS fails to include the fact that U.S. military leaders have been reported authorizing high volumes of sound as a *method of torture*. This, in spite of the UN's Convention Against Torture which prohibits public officials acquiescing or giving consent to torture, whether it be causing physical or mental suffering.

A multitude of comments on Seattle news sites illustrate the intimidating, coercive manner in which some readers have responded to concerns voiced by neighbours near to and far from Whidbey Island. Their raucous replies actually echo the noise of the Growlers! These self-proclaimed "navy-supporters" seem

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 3.a. Aircraft Operations
- 4.a. General Noise Modeling
- 4.d. Day-Night Average Sound Level Metric
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation

to conflate 'disturbing the peace' with 'keeping the peace'. They seem to feel the Navy is entitled to make as much noise as they want to, regardless of the effect on others. They exhibit very little sympathy and understanding for those who are asking for noise abatement. It is my hope that those who are in a position to make decisions about the planned expansion are not already deaf to the concerns brought forward in opposition to the proposed expansion.

Contrary to what is shown in the multi-coloured illustrations of the geographic area affected, the noise footprint of these aircraft is in a wide range: from the take off and landings to the flight paths in and out of Whidbey --as far as the Growlers fly. I appreciated the ANS discussion regarding the nature of sound, however, I did not see that this physics has actually been applied in studying the flights of the Growlers.

- While we are located almost 'line of sight' to Whidbey, depending on atmospheric temperature, there can be refraction/reflection due to changes in the air density which can result in others in our area not hearing the same thing (because the sound has 'bounced' or been 'bent'). Others live in 'sound shadows' where the sound has been absorbed. Some people have already lost some hearing, like those who attend loud music/athletic events. Their threshold for loud noises is/was much higher than those who enjoy quiet living. Hence, within the Greater Victoria area, there will be a wide variety of both what is targeted and what is perceived.
 - Having only one monitoring station (SO7 - Sir James Douglas School) in your tables is not giving a true sampling of the Greater Victoria area / Capital Region District. I live ~6 km north of SO7.
 - Resident surveys would give you better results. Why not mount a web-site (like the one we have for earthquakes) that is interactive, allowing residents to enter dates, times, location and severity of disturbances? These could then be correlated with the information you have regarding the direction of flight paths and the altitudes (6000 - 1200 feet).
- The ANS estimates that with the proposed expansion, the number of training activities will increase from 5,414 events to 8,140 events in the offshore area. Is there some reason I should think this won't affect me adversely?

- When a neighbourhood party causes noise disturbance, the police are called and it is shut down; the current proposal for adding 36 more Growlers is equivalent to inviting more people to the party!
- Using “average year baselines” for the decibel readings irons out and omits the high readings which are most disturbing.
- Is it true that the Navy uses a similar method to what the USFAA uses at commercial airports: averaging the noise levels over every day of the year –including the days when there is no noise?
- As noted in the ANS physics section, the decibel scale is exponential, so a little bit higher reading is heard as quite a bit louder: (“60 dB + 60 dB = 63 dB, and 80 dB + 80 dB = 83 dB”).
- IF it is true, as stated in the ANS, that “A decrease in sound level of 10 dB actually represents a 90% decrease in sound intensity but only a 50% decrease in perceived loudness because the human ear does not respond linearly,” THEN the corollary must be that “An *increase* in sound level of 10 db actually represents a 90% *increase* in sound intensity and a 50% *increase in perceived loudness*”.
- I did not see any discussion in the ANS of the episodically extreme nature of Growler jet noise. What are the maximum decibels produced off base? Have these instances been averaged into the readings?

I would hope that every effort will be made by the local public officials as well as those responsible in the Navy to prevent any increase in the number of flights and the disturbing –and for some, tortuous-- magnitude of the noise created. To continue to ignore the punishing noise problem, the Navy will be failing to abide by its own policy, which I understand to be the following:

To conduct required training and operational flights *with a minimum impact on surrounding communities*. All aircrew using Ault Field, OLF Coupeville, Admiralty Bay Mining Range, Boardman Target and the myriad of northwest instrument and visual military training routes (IR/VR), are responsible for the safe conduct of their mission while complying with published course rules, *noise abatement* procedures, and

good common sense. Each aircrew must *be familiar with the noise profiles of their aircraft and must be committed to minimizing noise impacts* without compromising operational and safety requirements.

It is my recommendation that both the plan and the planes need redesign before any further expansion is approved in this area. As project manager, I am hoping that is a recommendation that you will make.

At the same time, I urge you to prioritize renaming the “Growlers”. What must be well-known among the military, I have only learned today through dozens of references the Urban Dictionary: there is a long-standing history of this term (going back to WWII) as obscene crotch talk primarily referencing the female vagina. It is disturbing to learn that it particularly references the genitalia of female military aircrew! Surely, this out-dated ‘jock talk’ is a form of **HARASSMENT** that can no longer be tolerated in the 21st Century. I would like your assurance that the US Navy has more honour and integrity than this term implies and can easily and quickly remedy this vulgar terminology. Likewise, I wish the Navy to realise that many of us in the Whidbey Island ‘sound cone’ feel harassed by the noise.

Sincerely yours,

[Redacted signature]

[Redacted name]

[Redacted address]
SAANICH BC V8N 5C6
CANADA

[Redacted contact info]

Written in response to the US Navy’s invitation to respond to the Draft Environmental Impact Statement

Seattle, WA 98115

Please DO NOT allow the Navy to do war games in the Olympic National Park. Not only this degrade the National Park experience, but the environmental effects of this kind of activity would be catastrophic. It is a NATIONAL PARK which is to be protected, and I cannot believe that playing war games fits with the concept of protection. [REDACTED]

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

7.d. Recreation and Wilderness Analysis and Study Area



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name [REDACTED]
- 2. Organization/Affiliation OLYMPIC ENVIRONMENTAL COUNCIL
- 3. Address [REDACTED]
- 4. E-mail PORTTOWNSENT
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

I CAME TO THE MEETING TO TALK W/ THE WILEY PEOPLE WHO WROTE THE NOISEMAP REPORT IN THE EIS. HAD SEVERAL USEFUL DISCUSSIONS WILL SUBMIT DETAILED COMMENTS ON ADEQUACY OF MODELING & THE APPROACH THAT HAS BEEN TAKEN TO THE CHARACTERIZATION OF AIRCRAFT NOISE. THANK YOU FOR SENDING PEOPLE WHO ARE ACTUALLY INVOLVED IN THE NOISE MODELING. OBVIOUSLY, I WANT TO BS

COOP...

Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model

Langley, WA 98260

1.a. Thank You

4.f. Noise Measurements/Modeling/On-Site Validation

Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.

Langley, WA 98260

NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide “scientifically and legally defensible noise assessments” of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model.

1.a. Thank You

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

Langley, WA 98260

The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days.

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

Langley, WA 98260

1.a. Thank You

4.r. Nonauditory Health Effects

The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization Guidelines on Community Noise and Night Noise Guidelines for Europe.

Langley, WA 98260

1.a. Thank You
4.j. Other Reports

The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

1.a. Thank You

7.h. San Juan Islands National Monument

Langley, WA 98260

The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the monument is exempt from NEPA.

Langley, WA 98260

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

Langley, WA 98260

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism

The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

Langley, WA 98260

1.a. Thank You
4.t. Noise Mitigation

All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

Langley, WA 98260

- 1.a. Thank You
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process

The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

Port Townsend, WA 98368

1.a. Thank You

2.n. Alternatives Considered But Eliminated

We came to one of the most beautiful areas of the US to get away from the noise pollution, and congestion of city life. Please consider offering training in another part of the country where the impact will not be as great.

1.a. Thank You

Port Townsend , WA 98368

Hi. I am not in favor of this increase in Growlers or any other military operations. The amount of resources you all use is astounding and not supportive to life on earth, humans included. Neither is war. If we would stop interfering in the world and trying to control others resources so we can continue to excessively use them, we wouldn't have people elsewhere upset with us. Thank you

U. S. Navy
 EA-18G EIS Project Manager (Code EV 21/SS)
 NAVFAC Atlantic
 6506 Hampton Blvd.
 Norfolk, VA 23508
 e-mail: WhidbeyEIS@navy.mil
 Submitted online at: <http://whidbeveis.com/Comment.aspx>

February 24, 2017

COMMENTS

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

Dear US Navy:

I am deeply concerned about the continued and proposed increased use of the Coupeville Outlying Field by the U.S. Navy. The new jets are louder and they are flying far more often until well after midnight during the work week; they are disrupting personal lives and local economy which is reliant upon tourism, permanently damaging our hearing with decibels far exceeding safety levels, and endangering the environment. They constitute an invasion of my privacy and entitlement to a peaceful existence here on the Peninsula.

As a resident of a National Trust Recognized historic uptown neighborhood since 1994, I have made numerous complaint calls to the Navy and can observe and hear the planes at OLF from inside my home.

The major noise impact in the Port Townsend area is when the planes turn from south to east to north, approaching the OLF runway. At this time, the noise is extremely loud, and I have observed it several hours after midnight on countless occasions. I have definitely noticed significantly louder noise since 2009 when the EA-18G Growlers have been replacing the EA-6B Prowlers.

Another impact is various fly-overs in the Port Townsend and Fort Worden area. For many years, I have observed the P-3 Orion prop planes circle through the Admiralty Inlet area, quite close to, and occasionally directly over the City of Port Townsend. While noisy, they are much quieter than the P-8 Poseidon jet, which is replacing them. The increased flights to the western areas of the Olympic Peninsula also impact our area.

NOISE: The Navy considers any sound above 84dB as noise hazardous, or having the potential to cause hearing loss. The F/A-18E/F Growler aircraft emits, a maximum of 150 dBs, high enough to result in permanent hearing loss. Actual noise levels and frequencies should be determined by measurement throughout the affected area, not just in the immediate vicinity of the OLF. This includes throughout central and north Whidbey, including Coupeville and Oak Harbor, all affected State Parks (Fort Casey, Fort Worden, Fort Flagler, Fort Ebey, Deception Pass, etc.) and the affected portion of Olympic National Park, affected portions of Skagit County, Jefferson County including Port Townsend, San Juan County, and on the water where boaters may be subjected to the noise. Real-time high noise events experienced

1.a. Thank You
 10.b. Biological Resources Impacts
 10.c. Wildlife Sensory Disturbance and Habituation
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 10.j. Plants
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 12.e. Agriculture Analysis
 12.f. Economic Hardship and Impacts
 12.h. Tourism
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 8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

with each touch-and-go operation should be measured rather than averages over periods when the jets aren't even flying.

The economic impacts of noise generated by Growler jet operations, strangely enough, is not addressed in the EIS. These include reduction in property values; reduction in income due to lost work opportunity and productivity (e.g., inability to perform time dependent farm work due to Growler noise), economic health costs, and reduction in recreation and tourism.

The adverse noise impacts to wildlife has not been adequately studied and disclosed. In particular, impacts in areas where there are aggregations of birds should be determined, including Crockett Lake, Smith and Minor Islands, and areas of Puget Sound. This includes not just resident individuals, but periodic visitors (e.g., migrating birds). Noise impacts to listed species which may not occur in large aggregations, particularly Marbled Murrelet, also need to be considered. I have personally been at the beach at Point Hudson during the evening when Growlers were active and watched the impact of the noise depress a flock of low flying shore birds onto the surface of the water, just as if a large flat hand had pushed them down. Due to the frequency profile of the sound made by Growler jets, there is also the potential for noise impacts to marine mammals. Additionally, impacts of noise on livestock also need to be disclosed.

HEALTH: Aircraft noise can permanently damage hearing, raise blood pressure, and harm livestock and wildlife, and children have greater susceptibility to harm. Studies include those by: the World Health Organization, the US Department of Transportation, and the US Environmental Protection Agency. The EIS does not consider the variable ages of the affected human population especially youth. There needs to be particular consideration of travelers in motor vehicles, boaters, people recreating at all of the affected State Parks, etc. Results should be presented in terms of impacts to individuals (i.e., exposure thresholds resulting in hearing loss) and populations (i.e., such as the increased rates of cardiovascular disease).

The Navy has not disclosed any existing data regarding fuel dumping that may occur and that it may have. If there is none, that has not been stated and if there is no data, the EIS has not disclosed this lack of data. Second, a formal monitoring program needs to be put in place that will log and record instances of fuel dumping, including where the dumping occurred, jet speed and elevation, and how much fuel was dumped. This system should operate with a system allowing members of the public to report fuel dumping. These results need to be evaluated both in terms of human and non-human terrestrial and fresh and saltwater ecosystem health and including effects on all animals and vegetation, including forest trees. Investigation of impacts of fuel dumping on forest canopies also needs to consider possible impacts of wind created by low flying jets.

The impacts to human and ecosystem health from electromagnetic radiation from antenna farms and radar installations needs to be investigated and disclosed, as it is a part of this particular expansion.

SAFETY: Flights over populated areas pose potential safety problems. Pilots and residents are at risk when the Navy uses this short, outdated World War II era OLF. Keeping it open will cause some of the people of the North Puget Sound area permanent hearing loss; air pollution from fuel dumps in the air; and subject them to living with the risk of jets crashing into their houses.

ENVIRONMENT: In addition to noise and health concerns raised above, I note that the OLF sits next to Ebey's Landing National Historic Reserve, a 24,000-acre National Park of environmental, cultural, and historical significance and an important wildlife and migratory bird habitat, supporting recreational/tourist use and appreciation. Does this EIS fully consider the real effects of OLF operations on these significant values? Air Pollution and Climate Change Pollution from jet aircraft releases harmful greenhouse gases that will contribute to climate disruption.

VEGETATION MANAGEMENT: The EIS needs to address weed control around OLF, particularly of Canada Thistle, blackberry & Scotch Broom. There are several rare plants and communities present on NAS Whidbey including forest at Rhododendron Park, prairie remnants on Smith Prairie (including the presence of the federal and state listed Golden Paintbrush), the rare forest types along Whidbey's west coast, Admiralty Inlet Natural Area Preserve, and various plant communities in both the affected State and National Parks. Without active management, degradation is predictable.

GEOLOGIC IMPACT: An examination of the possible impact of aircraft noise and ground vibrations on the various island slide areas including in the Ledgewood Beach community on Whidbey Island and the bluff collapse at Chetzemoka Park in Port Townsend.

ALTERNATIVES TO OLF: The OLF was not used for the second half of 2013, during which time training has been conducted elsewhere. Less populated areas should be considered for Touch & Go traffic required for training. This would make it safer for everyone including the Navy families living under the planes. Yakima is an option with airfields and facilities to accommodate staff. It is less than ten minutes by growler to eastern WA. & these planes already use this area regularly. In addition, there are other locations in the sparsely populated California dessert that should be considered for all these activities.

CONCLUSION: I strongly recommend the No Action Alternative, for the reasons stated above. In the event that the No Action Alternative is not chosen, I recommend Scenario C for the remaining alternatives.

Thank you for the opportunity to contribute to this Environmental Impact Statement.

Sincerely,

(Signed in Original State as mailed)

[Redacted Signature]

Aquatic Resources Conservation Group

[Redacted Address Line]

Port Townsend, WA 98368

[Redacted Address Line]

U. S. Navy
 EA-18G EIS Project Manager (Code EV 21/SS)
 NAVFAC Atlantic
 6506 Hampton Blvd.
 Norfolk, VA 23508
 e-mail: WhidbeyEIS@navy.mil
 Submitted online at: <http://whidbeyeis.com/Comment.aspx>

February 24, 2017

COMMENTS

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with each touch-and-go operation should be measured rather than averages over periods when the jets aren't even flying.

The economic impacts of noise generated by Growler jet operations, strangely enough, is not addressed in the EIS. These include reduction in property values; reduction in income due to lost work opportunity and productivity (e.g., inability to perform time dependent farm work due to Growler noise), economic health costs, and reduction in recreation and tourism.

The adverse noise impacts to wildlife has not been adequately studied and disclosed. In particular, impacts in areas where there are aggregations of birds should be determined, including Crockett Lake, Smith and Minor Islands, and areas of Puget Sound. This includes not just resident individuals, but periodic visitors (e.g., migrating birds). Noise impacts to listed species which may not occur in large aggregations, particularly Marbled Murrelet, also need to be considered. I have personally been at the beach at Point Hudson during the evening when Growlers were active and watched the impact of the noise depress a flock of low flying shore birds onto the surface of the water, just as if a large flat hand had pushed them down. Due to the frequency profile of the sound made by Growler jets, there is also the potential for noise impacts to marine mammals. Additionally, impacts of noise on livestock also need to be disclosed.

HEALTH: Aircraft noise can permanently damage hearing, raise blood pressure, and harm livestock and wildlife, and children have greater susceptibility to harm. Studies include those by: the World Health Organization, the US Department of Transportation, and the US Environmental Protection Agency. The EIS does not consider the variable ages of the affected human population especially youth. There needs to be particular consideration of travelers in motor vehicles, boaters, people recreating at all of the affected State Parks, etc. Results should be presented in terms of impacts to individuals (i.e., exposure thresholds resulting in hearing loss) and populations (i.e., such as the increased rates of cardiovascular disease).

The Navy has not disclosed any existing data regarding fuel dumping that may occur and that it may have. If there is none, that has not been stated and if there is no data, the EIS has not disclosed this lack of data. Second, a formal monitoring program needs to be put in place that will log and record instances of fuel dumping, including where the dumping occurred, jet speed and elevation, and how much fuel was dumped. This system should operate with a system allowing members of the public to report fuel dumping. These results need to be evaluated both in terms of human and non-human terrestrial and fresh and saltwater ecosystem health and including effects on all animals and vegetation, including forest trees. Investigation of impacts of fuel dumping on forest canopies also needs to consider possible impacts of wind created by low flying jets.

The impacts to human and ecosystem health from electromagnetic radiation from antenna farms and radar installations needs to be investigated and disclosed, as it is a part of this particular expansion.

SAFETY: Flights over populated areas pose potential safety problems. Pilots and residents are at risk when the Navy uses this short, outdated World War II era OLF. Keeping it open will cause some of the people of the North Puget Sound area permanent hearing loss; air pollution from fuel dumps in the air; and subject them to living with the risk of jets crashing into their houses.

ENVIRONMENT: In addition to noise and health concerns raised above, I note that the OLF sits next to Ebey's Landing National Historic Reserve, a 24,000-acre National Park of environmental, cultural, and historical significance and an important wildlife and migratory bird habitat, supporting recreational/tourist use and appreciation. Does this EIS fully consider the real effects of OLF operations on these significant values? Air Pollution and Climate Change Pollution from jet aircraft releases harmful greenhouse gases that will contribute to climate disruption.

VEGETATION MANAGEMENT: The EIS needs to address weed control around OLF, particularly of Canada Thistle, blackberry & Scotch Broom. There are several rare plants and communities present on NAS Whidbey including forest at Rhododendron Park, prairie remnants on Smith Prairie (including the presence of the federal and state listed Golden Paintbrush), the rare forest types along Whidbey's west coast, Admiralty Inlet Natural Area Preserve, and various plant communities in both the affected State and National Parks. Without active management, degradation is predictable.

GEOLOGIC IMPACT: An examination of the possible impact of aircraft noise and ground vibrations on the various island slide areas including in the Ledgewood Beach community on Whidbey Island and the bluff collapse at Chetzemoka Park in Port Townsend.

ALTERNATIVES TO OLF: The OLF was not used for the second half of 2013, during which time training has been conducted elsewhere. Less populated areas should be considered for Touch & Go traffic required for training. This would make it safer for everyone including the Navy families living under the planes. Yakima is an option with airfields and facilities to accommodate staff. It is less than ten minutes by growler to eastern WA. & these planes already use this area regularly. In addition, there are other locations in the sparsely populated California dessert that should be considered for all these activities.

CONCLUSION: I strongly recommend the No Action Alternative, for the reasons stated above. In the event that the No Action Alternative is not chosen, I recommend Scenario C for the remaining alternatives.

Thank you for the opportunity to contribute to this Environmental Impact Statement.

Sincerely,

[Redacted signature block]

[Redacted]
Port Townsend, WA 98368
[Redacted]

Port Townsend, WA 98368

I am deeply concerned about the continued and proposed increased use of the Coupeville Outlying Field by the U.S. Navy. The new jets are louder and they are flying far more often until well after midnight during the work week; they are disrupting personal lives and local economy which is reliant upon tourism, permanently damaging our hearing with decibels far exceeding safety levels, and endangering the environment. They constitute an invasion of my privacy and entitlement to a peaceful existence here on the Peninsula. As a resident of the National Trust Recognized historic uptown neighborhood since 1994, I have made numerous complaint calls to the Navy and can observe and hear the planes at OLF from inside my home. The major noise impact in the Port Townsend area is when the planes turn from south to east to north, approaching the OLF runway. At this time, the noise is extremely loud, and I have observed it several hours after midnight on countless occasions. I have definitely noticed significantly louder noise since 2009 when the EA-18G Growlers have been replacing the EA-6B Prowlers. Another impact is various fly-overs in the Port Townsend and Fort Worden area. For many years, I have observed the P-3 Orion prop planes circle through the Admiralty Inlet area, quite close to, and occasionally directly over the City of Port Townsend. While noisy, they are much quieter than the P-8 Poseidon jet, which is replacing them. The increased flights to the western areas of the Olympic Peninsula also impact our area.

NOISE: The Navy considers any sound above 84dB as noise hazardous, or having the potential to cause hearing loss. The F/A-18E/F Growler aircraft emits, a maximum of 150 dBs, high enough to result in permanent hearing loss. Actual noise levels and frequencies should be determined by measurement throughout the affected area, not just in the immediate vicinity of the OLF. This includes throughout central and north Whidbey, including Coupeville and Oak Harbor, all affected State Parks (Fort Casey, Fort Worden, Fort Flagler, Fort Ebey, Deception Pass, etc.) and the affected portion of Olympic National Park, affected portions of Skagit County, Jefferson County including Port Townsend, San Juan County, and on the water where boaters may be subjected to the noise. Real-time high noise events experienced with each touch-and-go operation should be measured rather than averages over periods when the jets aren't even flying. The economic impacts of noise generated by Growler jet operations, strangely enough, is not addressed in the EIS. These include reduction in property values; reduction in income due to lost work opportunity and productivity (e.g., inability to perform time dependent farm work due to Growler noise), economic health costs, and reduction in recreation and tourism. The adverse noise impacts to wildlife has not been adequately studied and disclosed. In particular, impacts in areas where there are aggregations of birds should be determined, including Crockett Lake, Smith and Minor Islands, and areas of Puget Sound. This includes not just resident individuals, but periodic visitors (e.g., migrating birds). Noise impacts to listed species which may not occur in large aggregations, particularly Marbled Murrelet, also need to be considered. I have personally been at the beach at Point Hudson during the evening when Growlers were active and watched the impact of the noise depress a flock of low flying shore birds onto the surface of the water, just as if a large flat hand had pushed them down. Due to the frequency profile of the sound made by Growler jets, there is also the potential for noise impacts to marine mammals. Additionally, impacts of noise on livestock also need to be disclosed. **HEALTH:** Aircraft

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 10.j. Plants
- 10.l. Bird Migration
- 10.m. Impacts to Marine Species and Habitat
- 12.c. Socioeconomic Impacts
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.o. Cost-Benefit Analysis
- 16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)
- 18.a. Climate Change and Greenhouse Gases
- 18.d. Washington State Greenhouse Gas Goals
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.k. Range of Alternatives
- 2.l. No Action Alternative
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.k. Comparison of the Prowler to the Growler
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 6.f. Fuel Dumping
- 7.e. Impacts to Recreation from Noise/Operations
- 8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

noise can permanently damage hearing, raise blood pressure, and harm livestock and wildlife, and children have greater susceptibility to harm. Studies include those by: the World Health Organization, the US Department of Transportation, and the US Environmental Protection Agency. The EIS does not consider the variable ages of the affected human population especially youth. There needs to be particular consideration of travelers in motor vehicles, boaters, people recreating at all of the affected State Parks, etc. Results should be presented in terms of impacts to individuals (i.e., exposure thresholds resulting in hearing loss) and populations (i.e., such as the increased rates of cardiovascular disease). The Navy has not disclosed any existing data regarding fuel dumping that may occur and that it may have. If there is none, that has not been stated and if there is no data, the EIS has not disclosed this lack of data. Second, a formal monitoring program needs to be put in place that will log and record instances of fuel dumping, including where the dumping occurred, jet speed and elevation, and how much fuel was dumped. This system should operate with a system allowing members of the public to report fuel dumping. These results need to be evaluated both in terms of human and non-human terrestrial and fresh and saltwater ecosystem health and including effects on all animals and vegetation, including forest trees. Investigation of impacts of fuel dumping on forest canopies also needs to consider possible impacts of wind created by low flying jets. The impacts to human and ecosystem health from electromagnetic radiation from antenna farms and radar installations needs to be investigated and disclosed, as it is a part of this particular expansion. SAFETY: Flights over populated areas pose potential safety problems. Pilots and residents are at risk when the Navy uses this short, outdated World War II era OLF. Keeping it open will cause some of the people of the North Puget Sound area permanent hearing loss; air pollution from fuel dumps in the air; and subject them to living with the risk of jets crashing into civilians' houses. ENVIRONMENT: In addition to noise and health concerns raised above, I note that the OLF sits next to Ebey's Landing National Historic Reserve, a 24,000-acre National Park of environmental, cultural, and historical significance and an important wildlife and migratory bird habitat, supporting recreational/tourist use and appreciation. Does this EIS fully consider the real effects of OLF operations on these significant values? Air Pollution and Climate Change Pollution from jet aircraft releases harmful greenhouse gases that will contribute to climate disruption. VEGETATION MANAGEMENT: The EIS needs to address weed control around OLF, particularly of Canada Thistle, blackberry & Scotch Broom. There are several rare plants and communities present on NAS Whidbey including forest at Rhododendron Park, prairie remnants on Smith Prairie (including the presence of the federal and state listed Golden Paintbrush), the rare forest types along Whidbey's west coast, Admiralty Inlet Natural Area Preserve, and various plant communities in both the affected State and National Parks. Without active management, degradation is predictable. GEOLOGIC IMPACT: An examination of the possible impact of aircraft noise and ground vibrations on the various island slide areas including in the Ledgewood Beach community on Whidbey Island and the bluff collapse at Chetzemoka Park in Port Townsend. ALTERNATIVES TO OLF: The OLF was not used for the second half of 2013, during which time training has been conducted elsewhere. Less populated areas should be considered for Touch & Go traffic required for training. This would make it safer for everyone including the Navy families living under the planes. Yakima is an option with airfields and facilities to accommodate staff. It is less than ten minutes by growler to eastern WA. & these planes all ready use this area regularly. In addition there are other locations in the sparsely populated California desert that should be

considered. I strongly recommend the No Action Alternative, for the reasons stated above. In the event that the No Action Alternative is not chosen, I recommend Scenario C for the remaining alternatives. Thank you for the opportunity to contribute to this Environmental Impact Statement. Sincerely, [REDACTED]



BRICKLIN & NEWMAN LLP
lawyers working for the environment

Reply to: Seattle Office

February 22, 2017

EA-18G EIS Project Manager
Naval Facilities Engineering Command (NAVFAC)
Atlantic – Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

Re: Comments on Draft Environmental Impact Statement for EA-18G Growler
Airfield Operations at Naval Air Station Whidbey Island Complex

Dear Project Manager:

The attached comments letters and documents are being submitted as comments for the Draft Environmental Impact Statement for EA-18G Growler Airfield Operations a Naval Air Station Whidbey Island Complex published on November 10, 2016. The comments are submitted on behalf of the Citizens of the Ebey's Reserve ("COER") and the individuals listed in the attached document. The attached comments on the DEIS represent the culmination of past and current outreach and research efforts by the COER Board of Directors, COER's many diverse supporters and contributors, and its four contracted experts in acoustics and environmental health. We further recognize the thousands of individuals who contributed valued volunteered time and funds in support of the Northwest Pacific Coast Alliance, which is composed of seven individual organizations committed to resolving the noise and associated environmental health impacts associated with EA-18G Growlers in the northern Puget Sound area. Each of the seven organizations represent a discrete portion of Puget Sound, but we have joined together in solidarity and support of each other's comments, as so stated in the attached resolution of the Northwest Pacific Coast Alliance.

Please find attached the following documents:

- Comment Letter prepared by [REDACTED] and [REDACTED]
- Comment Letter with addendums prepared by [REDACTED] and Citizens of the Ebey's Reserves Board of Directors
- Pacific Northwest Coast Alliance Resolution
- Individual Cosigners to COER Comments
- Dahlgren Report with appendices
- Fidell Report with appendices

- 1.a. Thank You
- 1.c. Segmentation and Connected Actions
- 1.e. Risk of Terrorist Attack
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property
- 12.n. Quality of Life
- 12.o. Cost-Benefit Analysis
- 13.a. Environmental Justice Impacts
- 14.d. Bridges and Ferries
- 16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)
- 19.b. Revised Cumulative Impacts Analysis
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.a. Purpose and Need
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments
- 2.i. Proposed Action
- 2.j. Costs of the Proposed Action
- 2.k. Range of Alternatives
- 2.l. No Action Alternative
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.e. Field Carrier Landing Practice Patterns
- 4.a. General Noise Modeling
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.k. Comparison of the Prowler to the Growler
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.n. Speech Interference (Indoor and Outdoor)

- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 5.a. Accident Potential Zones
- 5.b. Overtasking/Overloading of Air Traffic Control at Ault Field and Elsewhere
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)
- 6.b. National Ambient Air Quality Standards Compliance
- 7.b. Land Use Compatibility and Air Installations Compatible Use Zones
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports
- 8.b. Section 106 Process
- 8.c. Noise and Vibration Impacts to Cultural Resources
- 8.e. Outlying Landing Field Coupeville and Coupeville History
- 8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

EA-18G EIS Project Manager
February 22, 2017
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- “Invisible Costs: The \$122 Million Price Tag for the Naval Air Station Whidbey Island,” prepared by Michael Shuman
- “Outlying Field Coupeville: Its Time Has Passed,” prepared by Robert Wilbur, Maryon Atwood, Neal Sims, and Mark Harmon
- JGL Acoustics Reports prepared by Jerry Lilly
- Project noise impacts prepared by Paul Schomer
- National Parks Service Acoustical Monitoring Report for Ebey’s Landing National Historical Reserve
- 2005 AICUZ Study Update for Naval Air Station Whidbey Island’s Ault Field and Outlying Landing Field Coupeville, Washington
- 2005 Environmental Assessment for Replacement of EA-6B Aircraft with EA-18G Aircraft at Naval Air Station Whidbey Island
- 2012 Environmental Assessment for the Expeditionary Transition of EA-6B Prowler Squadrons to EA-18G Growler at NAS Whidbey Island
- Wyle Report (2004)
- Wyle Report (2012)

Thank you for your consideration of these comments. The Citizens of the Ebey’s Reserve and the individual commenters look forward to further participating in the Navy’s NEPA process.

Very truly yours,

BRICKLIN & NEWMAN, LLP



DAB:JB:pse



BRICKLIN & NEWMAN LLP
lawyers working for the environment

Reply to: Seattle Office

February 22, 2017

EA-18G EIS Project Manager
Naval Facilities Engineering Command (NAVFAC)
Atlantic, Attn: Code EV21/SS
6506 Hampton Blvd., Norfolk, VA 23508

Dear Project Manager:

I am providing these comments on behalf of the Citizens of the Ebey's Reserve for the Draft Environmental Impact Statement for EA-18G Growler Airfield Operations a Naval Air Station Whidbey Island Complex published on November 10, 2016. The following are deficiencies in the Draft Environmental Impact Statement ("DEIS") that must be corrected in order to comply with the requirements of the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321, *et seq.*

I. Purpose and Need of the Project

The Navy has defined the purpose and need of the proposal so narrowly that the DEIS excludes reasonable alternatives. NEPA requires agencies to describe the purpose and need of a project in general terms, to allow a range of reasonable alternatives.

[A]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality.

Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991).

The Navy's stated purpose for this proposal is "to augment the Navy's existing Electronic Attack community at NAS Whidbey Island by operating additional Growler aircraft as appropriated by Congress." However, the Congressional appropriations do not limit EA-18G Growlers to operating solely at NAS Whidbey Island, nor does the appropriation require the Navy to purchase as many aircraft as possible if the Navy determines fewer are required. DEIS at 1-5. This purpose and need is overly narrow in two ways.

Project Manager
February 22, 2017
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First, the purpose limits new aircraft to operating only at NAS Whidbey Island. The possibility of operating aircraft at another location that could have less significant environmental impacts cannot be considered. Rather than considering locating new Growlers appropriated by Congress at other Naval Air Stations, the Navy limited its consideration to alternatives only at NAS Whidbey Island because the Electronic Attack community was already located at NAS Whidbey Island. DEIS 2-13. But such a narrow purpose and need eliminates less environmentally impactful alternative sites and places the entire burden and impact on the communities surrounding NAS Whidbey Island.

While the Navy provides some discussion of considering alternative locations for Growler operations, the analysis is wholly inadequate and does not justify limiting the purpose and need solely to NAS Whidbey Island. The Navy does not consider relocating Growlers as a true alternative but rather as an “alternative considered but not carried forward for further analysis.” DEIS 2-12. But the DEIS does not provide true analysis — rather, it provides conclusory statements such as “No installation exists that could absorb the entire Growler community without excessive cost and major new construction.” DEIS 2-15. That is followed by brief descriptions of existing airfields with excuses as to why it would be difficult to relocate Growler operations there. However, this ignores the fundamental purpose of NEPA, which is to provide the decisionmaker with a full range of alternatives that allow a reasoned choice. Perhaps relocating Growler operations to another naval air station would provide little added environmental benefit and be prohibitively costly. Or perhaps the NEPA analysis reveals that a move, while costly, provides such prodigious environmental benefits through noise impact reductions that it makes a move worth it. Without a true analysis, it is impossible to determine if this is the case. Furthermore, removing alternatives from consideration because they might be inconvenient is not the criteria that alternatives are judged by. NEPA requires the Navy to “rigorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R. § 1502.14.

Therefore, the purpose and need should be expanded to allow for real consideration of alternative sites for Growler operations. The narrow purpose and need that limits Growler operations to NAS Whidbey Island is self-defeating and leads to a Catch-22 because an alternative site will never meet the purpose and need. Thus, the Navy’s conclusion that “re-locating new aircraft at alternative locations would degrade the Growler community’s overall effectiveness and does not meet the purpose of and need of the Proposed Action” was made as soon as the Navy limited the purpose and need to NAS Whidbey Island. DEIS 2-15.

Second, the purpose should include a description of the manner that the aircraft are operated, in particular, the need to operate aircraft in a manner that has minimal impact on nearby residents. Under NEPA, the scope of an alternatives analysis depends on the underlying purpose and need specified by the agency for the proposed action. *League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Service*, 689 F.3d 1060, 1069 (9th Cir. 2012). Given the relationship between the purpose and need and the alternatives analysis, it is vital that the purpose and need reflect the issues of greatest concern. The noise impacts of the proposed action are the greatest concern to the surrounding community and should be reflected in the purpose and need. For example, the purpose could be to “operate additional Growler aircraft in a minimally intrusive

manner to the public.” As the purpose is currently written, noise impacts will always be secondary. Reasonable alternatives are therefore excluded from consideration.

II. Reasonable Alternatives

The Navy has not considered a reasonable range of alternatives within the DEIS. While the Navy does not have to consider every conceivable formulation of the proposed action, NEPA does require the Navy to consider different alternatives that provide a meaningful choice amongst alternatives. Environmental impact statements “shall provide full and fair discussion of significant environmental impacts and shall inform decision-makers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.” 40 C.F.R. § 1502.1. The alternatives section of an EIS “is the heart of the environmental impact statement” and “it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision-maker and the public.” 40 C.F.R. § 1502.14. When evaluating the adequacy of an agency’s alternatives analysis, courts employ the “rule of reason” to ensure environmental impact statements contain sufficient discussion of the relevant issues and opposing views to enable agencies to take a hard look at the environmental impacts of the proposed action and its alternatives and to make a reasoned decision. *Wyoming v. U.S. Dept. of Agric.*, 661 F.3d 1209, 1243–44 (10th Cir. 2011). Without a range of meaningfully different alternatives, a decision-maker cannot fairly and fully evaluate the environmental impacts as required by NEPA.

The three action alternatives identified by the Navy are so similar as to provide almost no meaningful distinction between them. Thus, the alternatives do not provide the Navy with a range of actions and resulting impacts that allow for meaningful choices aimed at reducing environmental impacts. Each alternative will add nearly an identical amount of Growler aircraft to NAS Whidbey Island:

- Alternative 1: 35 additional Growlers;
- Alternative 2: 36 additional Growlers;
- Alternative 3: 36 additional Growlers.

The DEIS, perhaps realizing that there is virtually no meaningful distinction amongst the alternatives, argues that “[a]lthough the number of aircraft appear similar in the alternatives, the force structure arrangement is significant in that this determines the manner in which these aircraft train and operate, which has differing impacts on the environment.” DEIS at 2-5. The Navy asserts that aircraft added to expeditionary squadrons, rather than carrier squadrons, will have lower noise impacts, and because each alternative shuffles aircraft between different squadrons, the DEIS provides reasonable alternatives. DEIS at 2-5.

But this justification fails for two reasons. First, the total aircraft operations between the three alternatives is virtually identical:

- Alternative 1
 - Scenario A 129,900
 - Scenario B: 129,800
 - Scenario C: 130,000
- Alternative 2
 - Scenario A: 129,100
 - Scenario B: 129,100
 - Scenario C: 129,100
- Alternative 3
 - Scenario A: 128,800
 - Scenario B: 128,700
 - Scenario C: 128,700

DEIS at 2-7. When well over a hundred thousand aircraft operations are taking place over a year, a variance of only up to 2,000 operations is marginal. This difference becomes even less meaningful when one considers that these numbers are, at best, rough estimates.

Second, the Navy does not adequately explain how the impacts between carrier and expeditionary squadrons varies. This is borne out in the modelled noise impacts. For example, the areas that are within the DNL Contour Ranges under each alternative are remarkably similar. Compare Alternative 1's total area within the DNL Contour Ranges (Scenario A: 23,810; Scenario B: 23,623; Scenario C: 22,968) (DEIS at 4-24) with Alternative 2's total area within the DNL contour ranges (Scenario A: 23,643; Scenario B: 23,452; Scenario C: 22,748) (DEIS at 4-53).

As evidenced by Growlers added to each alternative, total flight operations, and noise impacts, the three action alternatives do not offer meaningful differences that will allow the Navy to evaluate the environmental impacts, and the DEIS certainly does not provide alternative which minimize the adverse environmental impacts which can occur.

To correct this error, the Navy must consider other reasonable alternatives in the EIS. For instance, the Navy could consider adding fewer Growlers to NAS Whidbey Island. There is no indication within the EIS that the Navy is forced to purchase 35 to 36 Growlers by Congress and locate all

35 or 36 Growlers at NAS Whidbey. In fact, the Navy notes substantial uncertainty in the funding that will be appropriated within its budget for future purchase of Growlers. DEIS at 2-1. Another alternative that could be considered is locating some of these Growlers at other Naval Air Stations. The EIS does not seriously consider whether the Navy can accomplish its goals without concentrating the impact of the Growlers on Whidbey Island. Instead, the Navy summarily concludes that “re-locating new aircraft at alternative locations would degrade the Growler community’s overall effectiveness and does not meet the purpose of and need of the Proposed Action.” DEIS 2-15. As described above, the DEIS provides a list of reasons why various naval air installations would be inconvenient to use for Growler operations, but the discussion does not evaluate the environmental impact of moving Growler operations or truly assess the feasibility. Ultimately, the decisionmaker might conclude that moving Growler operations to another naval installation does not provide enough environmental benefits to justify the relocation. But the point of an EIS is to inform at decisionmaker of all reasonable alternatives. 40 C.F.R. § 1502.14.

There are undoubtedly other reasonable alternatives which could minimize the environmental impact of Growler operations on the human environment while feasibly accomplishing the Navy’s goals. But there can be little doubt that the range of alternatives that the DEIS considers is unreasonably narrow. The differentiation between each alternative is so small as to not provide the Navy with options in the decision-making process that NEPA requires. *See* 40 C.F.R. § 1502.14. Furthermore, the Navy has not met its burden of showing that alternatives which consider moving Growler operations to another site are not reasonable. Therefore, the Navy must consider additional alternatives within the FEIS.

III. Failure to Adequately Disclose and Analyze Direct Impacts.

The DEIS fails to disclose and analyze many of the direct impacts that will result from each of the action alternatives. A fundamental purpose of an environmental impact statement is to “provide full and fair discussion of significant environmental impacts.” 40 C.F.R. § 1502.1. An EIS is required to discuss the environmental consequences of each alternative, including the direct effects and the significance of those effects. 40 C.F.R. § 1502.16(a). It is not enough that the Navy merely mentions the possibility or existence of significant impacts. NEPA requires agencies to take a “hard look” at the environmental consequences of an action before selecting a course of action. *Sierra Club v. Federal Energy Regulatory Commission*, 827 F.3d 59, 68 (D.C. Cir. 2016). In addition to being thorough, an agency’s discussion of environmental impacts must be scientifically accurate: “Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements.” 40 CFR § 1502.24.

Despite these clear requirements, the DEIS fails to adequately disclose and analyze the environmental impacts on noise, public health, water contamination, and neighboring land uses as described in detail in the attached letter. For instance, the DEIS acknowledges that “[w]ater quality in the ditched channels at Ault Field is considered poor.” DEIS 3-146. However, the DEIS does not analyze how the introduction of 35 to 36 Growlers will impact the water quality of Ault Field ditches; particularly in light of the addition of aircraft to the two main sources of water contamination: the flight line and hangar complex. *Id.* The Navy has not met the “hard look”

standard and has ignored or improperly analyzed several key aspects of the potential environmental impacts of the proposed action.

Furthermore, the DEIS fails to adequately evaluate the magnitude of significant impacts as well. An EIS must identify the "direct effects *and their significance*." 40 C.F.R. § 1502.16(a) (emphasis supplied). Significance is measured both in terms of context and intensity. 40 C.F.R. § 1508.27. Within the DEIS, the intensity of impacts is not adequately discussed, as described in the attached letter. For instance, there is a wide disparity between noise impacts that can cause annoyance and noise impacts that can cause physical damage to a person.

IV. Failure to Disclose Cumulative Impacts.

The DEIS does not fully address the significance of the cumulative impacts that will arise because of the combination of impacts generated by the proposed action and other actions in the area. "In a cumulative impact analysis, an agency must take a 'hard look' at *all* actions" that may combine with the action under consideration to affect the environment. *Te-Moak Tribe of W. Shoshone of Nev. v. U.S. Dep't of Interior*, 608 F.3d 592, 603 (9th Cir. 2010) (emphasis added). Furthermore, simply listing all relevant actions is not sufficient. Rather, "some quantified or detailed information is required. Without such information, neither the courts nor the public ... can be assured that the [agency] provided the hard look that it is required to provide." *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1379 (9th Cir. 1998).

The DEIS unnecessarily limits its consideration of past actions to three actions which went through NEPA analysis in recent years and one action that was categorically excluded from NEPA analysis, all of which have occurred since 2010. DEIS at 5-3 to 5-4. Such a narrow cumulative impacts analysis is utterly deficient because it ignores the larger cumulative impact caused by the addition of Growler operations to *all* existing aircraft operations. Flight operations have taken place at NAS Whidbey Island since World War II and certainly stretch farther back than 2010. Without analyzing the impacts of the proposed action in the context of past and current actions, it is impossible for the public or the decisionmaker to be fully informed of the cumulative impacts of the proposal. For example, if residents have been exposed in the past to sound levels which could damage hearing, then the cumulative effect of the additional noise which will result from the proposed action should be considered in the context of that cumulative effect.

NEPA does not limit cumulative impacts only to actions which have undergone NEPA analysis in the recent past. Cumulative impacts encompass *all* past, present, and foreseeable future actions:

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 CFR § 1508.7. The DEIS cumulative impact analysis fails to account for past actions not initiated by the Navy which can create a significant impact when considered in the context of the continuous flight operations that have occurred at NAS Whidbey Island over decades. To correct this deficiency, the EIS must disclose all relevant past and current actions which could have a cumulative effect and conduct a cumulative effects analysis that includes all relevant actions.

V. Failure to Allow Comment on Groundwater Impacts

The DEIS fails to provide sufficient information to allow for comment upon the impacts to groundwater. The groundwater surrounding NAS Whidbey Island is currently contaminated by perfluorooctane sulfonate ("PFO") and perfluorooctanoate ("PFOA"). As described in the letter of Dr. James Dahlgren, these chemicals pose a serious health risk to individuals that live within the vicinity of NAS Whidbey Island. The DEIS notes that there is existing groundwater contamination of PFO and PFOA within the vicinity of Ault Field and OLF Coupeville, but it states that the Navy is gathering more information on the contamination. DEIS at 4-285. The Navy also gives no indication of when it will stop using chemicals that contain PFOs and PFOAs, only that the Navy has the goal to stop using the chemicals at some unspecified point in the future. *Id.* Such vague promises do not provide any meaningful information or provide for the opportunity for meaningful comment by other agencies with expertise and the public. To correct this deficiency, the Navy must disclose the current extent of groundwater contamination, the timeframe for removing PFO and PFOA contaminated chemicals from its firefighting operations, and the expected future usage of PFO and PFOA chemicals. After this information is disclosed, the Navy must allow the public the opportunity to provide comments on this potentially life-threatening impact.

VI. Failure to Establish Baseline of Impacts and Adequately Describe Existing Environment.

The DEIS fails to establish a usable baseline for several different types of environmental impacts, making it impossible to accurately gauge the impact that the proposed action will have upon the environment. "Establishing appropriate baseline conditions is critical to any NEPA analysis." *Great Basin Resource Watch v. Bureau of Land Management*, 2016 WL 7448094 at *3 (9th Cir. 2016). "Without establishing the baseline conditions which exist ... before [a project] begins, there is simply no way to determine what effect the [project] will have on the environment and, consequently, no way to comply with NEPA." *Half Moon Bay Fishermans' Mktg. Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988). An agency's assessment of baseline conditions "must be based on accurate information and defensible reasoning." *Or. Nat. Desert Ass'n v. Jewell*, 840 F.3d 562, 570 (9th Cir. 2016).

Furthermore, an EIS must accurately describe the existing environment that will be affected by the proposed action. 40 C.F.R. § 1502.15. This description of the existing environment is "necessary to understand the effects of the alternatives." *Id.* Similar to the need to establish a baseline, the description of the affected environment is important to determine the significance of impacts to the environment.

First, the DEIS does not establish adequate baseline information for noise impacts. As detailed in the attached letter, the DEIS does not accurately or fairly measure or estimate current sound levels and noise impacts. For instance, the DEIS relies upon an average of noise impacts from current Growler operations, which is misleading. Presenting average values is misleading because intense noise impacts from Growler operations can be "diluted" by averaging in the times when Growler operations are not occurring. It is like ignoring the impact of boiling water spilled on your arm by reporting its temperature as only 75 degrees (because before or after the boiling water was poured on your arm, 60-degree water was poured on your arm for a longer time). Furthermore, the noise analysis unnecessarily relies heavily on modelled data to produce noise impacts from current operations. Given various problems with the models (as described in the accompanying letters) and the ease with which the models could be verified or adjusted by comparing the model's prediction with actual observations, the Navy has no excuse for not field verifying and either reporting the field data or assuring the modeled results are field verified or both.

Second, the DEIS does not establish a baseline for groundwater contamination. As discussed above and within other comments submitted on behalf of COER and from the general public, the DEIS does not address groundwater contamination at all. Chemicals used in historical firefighting operations at NAS Whidbey Island have been discovered in nearby groundwater. There is a direct connection between the chemicals used in aircraft crashes and the groundwater contamination and, therefore, the Navy must assess the risk of additional groundwater contamination caused by additional crashes.

But in order to first determine whether a crash which results in the use of toxic fire retardant could have a significant impact upon the environment, it is necessary to establish a baseline of what the extent of the groundwater contamination currently is. NEPA requires that when there is incomplete information relevant to reasonably foreseeable significant adverse and that information is essential to a reasoned choice among alternatives, then the agency must obtain that information. 40 C.F.R. § 1502.22(a). Here, the information on groundwater contamination is essential to a reasoned choice because it directly involves human health. For instance, without an adequate baseline established it is impossible to know whether one crash event will result in groundwater contamination harmful to the public or if the impact will be negligible. Groundwater testing is underway, so the information is obtainable. Finally, crashes are a foreseeable result of increased Growler operations at NAS Whidbey Island and there is no indication of when flame retardants using PFO and PFOAs will be phased out, so this information must be included within the DEIS. The DEIS must establish a usable baseline in order to correct this deficiency.

Finally, the absence of an adequate baseline prevents the Navy from providing a reasonable comparison among the action alternatives. The brief discussion of hazardous materials within the DEIS only differentiates between the different alternatives while ignoring the hazardous materials impacts under the different scenarios. The alternatives in the DEIS describe different squadron arrangements for the growlers, while the scenarios describe different distributions of flight carrier landing practice between Ault Field and the Outlying Landing Field. The Navy concludes that the hazardous materials impacts are the same under all three scenarios because aircraft maintenance will occur at the same site regardless of the FLCP. DEIS at ES-2 to ES-4. But this ignores the potential for hazardous material releases during FLCP due to crashes and fire suppression. It is

possible that OLF may be more susceptible to contamination because of area hydrology or surrounding land uses. For instance, all private wells hydrologically connected to Ault field have already been switched to public water due to a contamination plume from Ault field in the 1990s, while the same is not true of wells near the OLF. DEIS 3-145 to 3-146. Without an adequate baseline study, it is impossible to say if there is no difference in the various scenarios considered within the DEIS.

VII. Failure to Allow Comment on Impacts to Marbled Murrelets

The DEIS improperly defers the inclusion of consultation with the Fish and Wildlife Service on impacts to the marbled murrelet until the Final Environmental Impact Statement. DEIS at 6-8. A fundamental aspect of the NEPA process is allowing other agencies and the public to provide informed comments on a draft environmental impact statement so that the lead agency can produce a final EIS that is responsive to those comments. See 40 C.F.R. § 1503.1; *Bering Strait Citizens for Responsible Resource Dev. V. U.S. Army Corps of Eng'rs*, 524 F.3d 938, 953 (9th Cir. 2008) (“An agency, when preparing an EA, must provide the public with sufficient environmental information, considered in the totality of circumstances, to permit members of the public to weigh in with their views and thus inform the agency decision-making process.”). Agencies cannot withhold important information until the final EIS. It must be presented in the draft to allow for review and input by others.

Remarkably, the DEIS, while acknowledging the proposed action “may affect” the marbled murrelet, defers analysis of the effects on the marbled murrelet. DEIS at 4-214. The Navy notes that it “will consult the USFWS” and publish the results in the Final EIS. DEIS at 6-8. But including the analysis of impacts on Marbled Murrelets until the Final EIS deprives the public of any ability to comment upon or analyze the potential impacts to marbled murrelet populations in the project area. As it stands, the DEIS does not provide any meaningful information on the impacts to the marbled murrelet. To correct this deficiency, the Navy must re-publish the draft EIS after it has completed the consultation with the USFWS or otherwise provided an assessment of the projects impacts on the marbled murrelet population and provided the public an opportunity to comment on that information disclosed in the draft EIS.

VIII. Failure to Disclose and Obtain Missing Information on Marbled Murrelets

The Draft EIS acknowledges that it does not include complete information relevant to the project’s impacts on the endangered marbled murrelet species. But the Draft EIS fails to acknowledge that the incomplete information is “essential” to the agency making a reasoned choice among alternatives. See 40 C.F.R. § 1502.22(a). Nor does the Draft EIS include any information regarding the costs of obtaining the missing information or include a statement that such costs are “exorbitant.” *Id.* Because the missing information is essential to a reasoned choice among alternatives and because there is no evidence that the costs of obtaining that missing information

are “exorbitant,” the agency should obtain the missing information and include it in a new Draft EIS.

In assessing whether the missing information is essential to a reasoned choice among alternatives, the agency must be mindful that the issue here relates to the survival of a species. Marbled murrelets were listed as an endangered species in 1992. *See* Fed. Reg. 57 FR 45328. But that listing has not halted their slide to oblivion. Marbled murrelets are more endangered today than they were when listed. *See* USFWS Marbled Murrelet 5-Year Review (June 12, 2009). All federal agencies should be doing everything possible to avoid any further adverse impacts to the species. Given the extremely vulnerable status of marbled murrelets, the threshold for finding missing information to be “essential” to a reasoned decision is relatively low.

The missing essential information is apparent from the text of the Draft EIS itself. For instance, the current DEIS acknowledges that recent occupancy surveys have not been conducted where suitable habitat is present. DEIS at 4-209. Likewise, the current DEIS acknowledges that there is limited research into the effects of aircraft disturbances on marbled murrelets. *Id.* While the DEIS acknowledges these data gaps, it fails to acknowledge that this missing information is essential to making a reasoned choice among alternatives. Indeed, the DEIS does not even address that issue nor does it address the costs of obtaining the missing information. The DEIS must include those assessments and provide other agencies and the public an opportunity to comment on them before publishing a Final EIS.

Instead of conducting the required assessments of whether the missing data is essential and whether it is cost prohibitive to obtain it, the DEIS strays into a discussion of studies that are of questionable relevance to the issues at hand. The DEIS discusses studies that have addressed the response of marbled murrelets to both low-flying planes. But there is no assessment in the DEIS or in those studies of the applicability of such studies to the current proposal. The noise impacts of the proposal are spread over a much wider area and are far more intense than the impacts apparently assessed in the studies discussed in the Draft EIS. The absence of an assessment of the applicability of these studies to the question at hand is a fatal flaw. The DEIS is misleading in devoting so much space to a discussion of these other studies of dubious relevance.

The DEIS also makes the dubious assertion that marbled murrelets in the area are already exposed to 89,000 aircraft operations from NAS Whidbey “which suggests that they are habituated to the existing high levels of aircraft activity . . .” DEIS at 4-211. This assertion raises multiple concerns. First, there is no scientific basis indicated (and none known to us) as to whether the asserted “habituation” is subject to some finite limits, *i.e.*, a breaking point. Second, the statement ignores that the noise generated by the proposal would be significantly greater than the noise generated by existing operations. It is not just an increase in the number of operations, but an increase in the noise generated by these new aircraft that will have an impact on the marbled murrelets. There is no basis at all for the implicit assumption that the greater noise levels (not just greater number of overflights) will have no impact on the birds. Third, the statement ignores future cumulative effects. Going forward with this proposal will increase the likelihood of yet additional aircraft being sited at NAS Whidbey in the future (just as the existing electronic warfare operations at NAS Whidbey have, in the agency’s view, virtually preordained the siting of this proposal at NAS

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Whidbey). The analysis of the proposal's impacts on marbled murrelets must take into account the probable impacts associated with yet additional noisy planes being sited and operated at NAS Whidbey if this proposal is approved and implemented.

IX. Conclusion

In order to fully comply with NEPA, the Navy must disclose the missing information as described above and re-issue the DEIS to allow the public to comment upon the information disclosed. Additionally, the Navy must correct the deficiencies described herein to fully comply with NEPA.

Very truly yours,

BRICKLIN & NEWMAN, LLP

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**Citizens of Ebey's Reserve (COER) Comments:
Draft Environmental Impact Statement
for Naval Air Station Whidbey Island
Feb 10, 2018**

Prepared by [REDACTED] and CORE Board of Directors

The following comments from Citizens of Ebey's Reserve (COER) on the Draft Environmental Impact Statement (DEIS) for Naval Air Station are submitted this day to EA-18G EIS Project Manager, Naval Facilities Engineering Command (NAVFAC) Atlantic – Attn: Code EV21/SS, 6506 Hampton Blvd., Norfolk, VA 23508.

OVERVIEW

In 2015 Citizens of Ebey's Reserve (COER) sought an injunction to stop Growler flight carrier landing practice (FCLP) at Outlying Field Coupeville (OLFC) until the EIS was completed. The injunction was denied by Judge Zilly primarily due to the reasoning he explain on page 27.3 of his decision:

In *Winter*, [involving new sonar device harm to marine mammals]... [t]he Supreme Court, [held] that 'even if plaintiffs have shown irreparable injury from the Navy's training exercises, any such injury is outweighed by the public interest and the Navy's interest in effective, realistic training' and that '[a] proper consideration of these factors alone requires denial of the requested injunctive relief.' *Id.* at 23. Similarly, plaintiff here has failed to demonstrate that the balance of interest tips in its favor." And pg. 28.7: As the Ninth Circuit has stated, "when a district court balances the hardships of the public interest against a private interest, the public interest should receive greater weight." *F.T.C. v. World Wide Factors, Ltd.*, 882 F.2d 344, 347 (9th Cir. 1989). Accordingly, plaintiff has not shown that the public interest weighs in its favor.

Whether the balance of interest was served by denying the injunction is arguable, but regardless, it did provide a roadmap that assisted COER in preparing for the draft EIS (DEIS). In the *Winter* case, there was no realistic option for the Navy to conduct its submarine sonar training exercises without putting marine mammals in harm's way. This is not the situation with OLFC because putting citizens in harm's way is **not necessary for national defense**. There are viable off-Whidbey Island FCLP options without the severe, inescapable impacts attended to on-Whidbey training. The DEIS rejects those sites largely due to inconvenience, costs, and contrived operational criteria. COER submits, as explained in the attendant numbered comments, that the

Navy has not in its DEIS established that its convenience and/or costs rise above the huge costs and impacts on central Whidbey Island civilians and businesses. Furthermore, the DEIS has failed to establish why this WW II relic, which is far short of standard acreage and runway length and can only operate under a DOD waiver, is superior for training its pilots than would be a 21st century site that is not encroached on and surrounded on all sides by residences, national parks, schools, businesses, and government offices.

Understanding and recognizing the challenges of documenting the impacts, COER undertook acquiring additional input from acoustical experts, expanded its educational reach to other areas of Northern Puget Sound to better understand the impacts they were experiencing, was a catalyst in generating an independent and critically needed economic study, and continued to expand its knowledge of the detrimental effects of jet noise on health and well-being, especially as related to FCLPs. The following comments are derived from that information base.

The DEIS recognizes and presents many of the relevant impacts, but highly important others are not considered, considered but unjustifiably dismissed, or slanted to minimize or mask the actual impact (see Overview Table below). Furthermore, the DEIS presented only superficial reasoning as to why its FCLP operations must be retained on Whidbey Island, as opposed relocating to an environmentally suitable off-Whidbey site. As a result, the DEIS has not documented that its needs for on-Whidbey FCLPs outweigh the enormous damages inflicted. Nor has the DEIS examined or considered that, were the FCLPs moved to a 21st century venue, pilot training and safety would be enhanced, the endless turmoil and controversy over devastating impacts would end, and public support for the Navy would grow.

The DEIS does not demonstrate that the Navy's proclaimed needs tip the scale Judge Zilly quoted from the Ninth Circuit: "When a district court balances the hardships of the public interest against a private interest, the public interest should receive greater weight." <*F. T. C. v. World Wide Factors, Ltd.*, 882 F.2d 344, 347 (9th Cir. 1989)> The reality is that the national public interests and the local public interests can both be achieved by sensibly relocating the NASWI Growler FCLP operations to an environmentally appropriate location.

In the numbered comments that follow COER examines major deficiencies in the DEIS that require judicious attention. Quotes from the DEIS appear in red font so they may be easily discerned from other text.

Overview Table
-- Summary of DEIS Failings and Need Actions --

DEIS Failure	Action Called For	Page
Comment 1: NONCOMPLIANCE WITH NEPA		7
The DEIS did not comply with the National Environmental Policy Act (NEPA). Fails to provide judicious evidence for dismissing off-Whidbey Island sites to conduct flight carrier land practice (FCLP).	Document conclusively why off-Whidbey FCLP costs and inconvenience rise above civilian impacts.	
There is no quantitative analysis of the monetary cost/benefits or qualitative analysis of pros/cons, as stipulated in NEPA 1502.23.	This failing must be corrected with substantive analysis to include two or three of the most promising off-Whidbey FCLP training options.	
DEIS obfuscates comprehension of the environmental impacts by artificially inflating the number of options to be analyzed. Exceeds page limits by about 1100 pages.	Analyze full range of off-Whidbey FCLP training locations and select the 2 or 3 most promising for as full alternatives to weigh against 2 or 3 on-Whidbey alternatives.	
Comment 2: DNL FAILINGS		16
The annual DNL noise contours used inappropriate use of annual average day rather busy day averaging,	Redo all DNL contours based on annual busy day averaging.	
The annual DNL noise contours used a scientifically invalidated DNL threshold for high noise annoyance.	Revise all ≥ 65 DNL discussion to ≥ 55 DNL.	

Comment 3: HEARING CONSERVATION ZONES and MORE		21
The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise.	Explain why protections for Navy personnel are important, but are not needed for civilians.	
Ignores impacts of noise on pregnant women and fetuses, yet has adopted protection measures for its pregnant personnel.	Explain why protections for pregnant Navy personnel are important, but are not needed for pregnant civilians.	
Asserts that noise impacts are affected by "intermittency," yet it never defines it or explains how or why.	Define "intermittency" and why it is not relevant in Navy protection measures for its personnel but is relevant to civilians.	
Comment 4: JGL STUDY UNDULY FAULTED		28
Claims dismissal of the JGL noise study as "flawed" is unsupportable.	Claim is bogus as JGL studies validated. DEIS needs to accept and use that important on-site data in evaluating single noise event impacts.	
Comment 5: EBHEY'S RESERVE		33
Misconstrues an important finding of the National Park Service's 2015 noise study.	Revision called for.	
Low-frequency noise (LFN) of the Growler not addressed in the DEIS as an exacerbating impact on Ebey's Landing Historic Reserve. LFN carries much further than other noise, and therefore traverses the full Reserve.	The impacts of LFN on visitor experience and damage to historic structures needs to be forthrightly addressed.	
Obfuscates credible understanding of the of the National Park Service's 2015 noise study as related to impacts on visitor experience.	Revision called for.	
Comment 6: PATH 14 versus 32		39
The 30% use projection for path 14 is unrealistic and greatly understates the DNL noise impacts for path 32.	This mistake must be corrected to reflect actual usage potentials of 5% to 10%.	

Comment 7: SAFETY		44
Actual safety risks are only superficially analyzed for FCLP operations at NASWI and OLFC. An effective solution to dispel the FCLPs risks associated with unchecked encroachment around OLFC is not presented.	This shortcoming needs judicious analysis, especially given the Growler is much more likely to crash than the Prowler.	
Comment 8: FAA ELEVATION RULES IGNORED		52
FAA rules, as related to FCLPs, have not been properly addressed in the DEIS.	DEIS needs to explain how it intends to operate at OLFC without violating very important components of federal law.	
Comment 9: DISPROPORTIONATE IMPACTS		55
Claims the proposed alternatives will not create disproportionate impacts on children or minorities, but that finding is very dubious.	Disproportionate impacts are expected and need to be identified and forthrightly justified.	
Comment 10: NO ACTION DOES NOT EQUAL NO IMPACT		58
Misrepresents the no-action alternative as the existing condition.	The correct existing condition needs to be corrected to the no-Prowler noise level.	
Incorrectly focuses on the increased impacts of the action alternatives as opposed to the total impacts of the no-action plus the action alternatives.	The comparative increases in noise need to be corrected to a no-jet-noise baseline.	
Understates the number of Growlers to be stationed at NASWI as 118 but seems it is actually 160.	DIES needs to identify the full number of Growlers planned and correct analyses accordingly.	
Comment 11: TOTAL IMPACTS, A CHARADE		62
Non-auditory health impacts, inappropriately excused via a scientifically un-defendable dismissal of the noise-health research literature. Not one of the preparers of DEIS had medical or auditory credentials.	Total revision of health impacts needed by qualified medical experts is needed.	
Misrepresents the no-action alternative as the baseline, making impacts of action alternatives on health appear far less pronounced.	Revised to address impacts relative to the true no-FCLP baseline.	

Comment 12: Weak Analysis of Classroom Interruptions		68
Obscures the effects of FCLP jet noise on classroom interruptions.	A more illuminating analysis of classroom interruption impacts is necessary.	
Comment 13: PFCs and EMR Not Considered		73
DEIS dismissal of PFC issue as irrelevant and the lack of any mention of EMR, both very important environmental issues, cannot be justified. The impacts on air quality have not been presented in a form most people can comprehend.	The DEIS has to be revised to address impacts related to both PFCs and EMR.	
Comment 14: AICUZ Ignored		74
Island County and the Navy have failed to comply with land-use planning guidelines of the 2005 AICUZ.	The DEIS needs to explain how it will ensure AICUZ compliance or in turn justify ignoring it.	
Final Wrap-Up: DEIS Full Revision Is Necessary		76
In regard to Growler FCLP operations the DEIS is so poorly prepared and non-compliant with NEPA that a revised draft is absolutely necessary—one that does legitimate jurisprudence to off-Whidbey FCLP options.		
Appendix A	Paul Schomer's Methods	80
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**COMMENT 1:
- NONCOMPLIANCE WITH NEPA -**

The Problem: The DEIS did not comply with the National Environmental Policy Act (NEPA) by **(a)** failing to provide judicious evidence for dismissing off-Whidbey Island FCLP options, and **(b)** obfuscating comprehension of the environmental impacts by artificially inflating the number of action alternatives to be analyzed.

The Explanation:

(a) Failing to provide judicious evidence for dismissing off-Whidbey Island FCLP options. In developing its proposed range of alternatives, the Navy states in DEIS Section 2.2 (Development of the Range of Action Alternatives) that it “carefully reviewed important considerations for the Growler community...” And in section 2.4 (Alternatives Considered but Not Carried Forward for Further Analysis) the Navy clearly dismisses off-Whidbey FCLP training sites, stating, “The following alternatives were considered but **not** carried forward for detailed analysis in this EIS as they did not meet the purpose of and need for the project.”

Actually, the DEIS did **not** “carefully review important considerations for the Growler community,” and thereby did not comply with NEPA Sec. 1502.14 (Alternatives Including the Proposed Action).

That section is the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environment (Sec. 1502.15) and the Environmental Consequences (Sec. 1502.16), it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. It requires agencies to: “(a) *Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.*”

The DEIS did surely “briefly discuss the reasons for” eliminating off-Whidbey sites, but presumably that discussion is to follow not preempt, “*Rigorously explore and objectively evaluate all reasonable alternatives.*” There is no substantive explanation how rigorously and objectively any off-Whidbey sites were explored.

Given the huge impacts related to the Navy-proposed actions, as well as a strong likelihood that one or more off-Whidbey sites **could effect a ubiquitously acceptable solution**, off-Whidbey FCLP training demanded an in-depth explanation, rather than a window-dressing dismissal.

The same need for rigorous consideration is reflected in parallel in requirements that the U. S. Department of Transportation must follow under sections 4 (a - f) of the Department of Transportation Act of 1966 (Title 49, USC) — <https://www.law.cornell.edu/uscode/text/49/303> . Section (c), which states:

(c) Approval of Programs and Projects.—Subject to subsections (d) and (h), the Secretary may approve a transportation program or project (other than any project for a park road or parkway under section 204 [1] of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) **only if (1) there is no prudent and feasible alternative to using that land...**

The DEIS failed to judiciously examine or substantiate that no alternative off-Whidbey site was feasible. The reasons that were advanced to support the putative impossibility of such sites were superficial, unconvincing, manufactured, and the requisites were not analytically supported. DEIS section 2.4 heading (*Alternatives Considered but Not Carried Forward for Further Analysis*) says as much; paraphrased it says, “we considered it and decided no.” The absence of reasoned explanation and analysis disrespects the clear and certain intent of so very many Northern Puget Sound residents who have, for years, adamantly implored the Navy to judiciously consider off-Whidbey locations for FCLP training. Instead, the DEIS provided trivial and misleading statements, as examined below.

“The NAS Whidbey Island complex is home to the Navy’s Growler mission, including the training squadron, all U.S.-based squadrons, and substantial infrastructure and training ranges that have been established during the past 40-plus years and as supported by previous NEPA analysis regarding Growler operations.” That statement is disingenuous and misleading. It insinuates that FCLPs over the 40-year history of NASWI were compatible with the island community, which hardly comports with the historical record. In fact, FCLPs from the 1960s forward have been controversial. The Growler arrived at NASWI around 2009/2010, and the EA for transitioning from Prowlers to Growlers was only approved in 2012. The FONSI for both the 2005 and 2012 EAs were derived based largely on five questionable or spurious irregularities. Those included, (1) 50:50 split in use of paths 14 and 32 when actually it was almost entirely (>90%) path 32, (2) projected night operations of 5% when actual night ops were 4 to 10 times that percentage from 2007 to 2012, (3) cherry picked a single high-operations year (2003) to represent as the base year, which made the projected operations less than the base year, (4) used SEL values for Prowlers and Growlers that did not agree with 2005 Air Installation Compatible

Use Zones (AICUZ) values and made the Growler seem quieter than the Prowler, and (5) used an annual DNL averaging for all days of the year which noise experts say is misrepresents proper DNL averaging protocol. All of this is thoroughly explored in Section 2.2 of the White Paper¹. The main point, however, is that the 2005 and 2012 EAs based largely on that misinformation do not really support a 40-year NEPA compliance record.

Another distortion: “*field elevation is at or below 1,000 feet above mean sea level, in order to duplicate the atmospheric conditions at sea.*” The 1000-foot criterion is misleading because actually density altitude is the critical metric, not actual altitude. That is, 1000 feet MSL has only partial relevance to atmospheric conditions at sea. Density altitude is a mix of actual altitude and atmospheric conditions that represent the altitude at which the aircraft feels it is flying—i.e, the way the plane handles and responds. Landing or taking off during high-density altitude conditions heavily influences approach speed, lift, and engine power output, changing length of landing roll and takeoff roll. Because a pilot is trained with feeling the aircraft, not just instrumentation, training is best when conducted in density altitudes the pilot will experience when landing on the carrier. Otherwise, pilots can hit the carrier deck too hard or miss it by flying too high. On May 29, 2016, for instance, a Growler landing aboard the carrier John C. Stennis in the South China Sea engaged the carrier arresting gear while still in flight. [5] Result: millions in damage.

Table 1.1.—Density altitude comparisons at four west coast FCLP training options versus actual carrier launch conditions in the Persian Gulf and South China Sea. These examples are based on an “average day” at each location [from www.USA.com].

Location	Elevation (feet) ^a	Air Temp. (°F)	Barometric Pressure ^b	Dew Point	Density Altitude
FCLP Training at OLF Coupeville					
OLFC	200	51	29.92	35	337
FCLP Training Sites, U.S. West Coast					
Lemoore NAS, CA	230	62	29.92	56	678
Moses Lake, WA	1189	50	29.92	45	1010
El Centro, CA	-40	75	29.92	40	1284
Yakima Training Area	1370	77	29.92	43	2963
Actual Carrier Launch Sites					
Persian Gulf	60	88	29.92	88	2182
Manilla ^c	60	88.2	29.92	79	2367
Ho Chi Minh City ³	60	90.3	29.92	81	2525

¹ Technical Committee of Citizens of Ebey's Reserve. 2016. (White Paper) Outlying Field Coupeville: Its Time Has Passed, An Analysis of the Arguments. (See White Paper at <http://citizensofebeyreserve.com/index.html>)

^a Airfield elevations were taken from FAA Airfield Diagrams, and actual carrier elevations are mean sea level plus 60 feet to the flight deck.

^b FAA "standard day" barometric pressure is 29.92.

^c Historical climatological data was not available for the South China Sea, as bounded by Manila and Ho Chi Minh City, but weather for these two cities should closely approximate.

As evident in Table 1.1 above, OLFC does **not** reflect the density altitude in the South China Sea or in the Persian Gulf. However, many of the off-Whidbey sites casually dismissed in the DEIS are much closer to the actual density altitude in those distant trouble spots, and hence, the conditions pilots will experience there are much better achieved at the dismissed off-Whidbey sites. Yakima training area, for instance, a proposed OLFC alternative, has far greater clear area and, while 1400 feet above sea level, has a density altitude of 2963 (around that of the South China Sea). Training there might have prevented the costly Stennis accident and reduced loss of aircraft and pilot.

And, from DEIS Section 2.4.2 (Moving Some or All of the Growler Community Aircraft Elsewhere): "*Some members of the public have suggested moving all Growler squadrons to another installation. No installation exists that could absorb the entire Growler community without excessive cost and major new construction.*" There was no cost analysis to document that costs would be "excessive" or what sort of dollar amount would establish an "excessive" threshold, or how such putative excessive costs would be subtracted from the socioeconomic costs of maintaining the Growler FCLPs on Whidbey such that a bottom line could be derived. Likewise, how many dollars constitute "major"? With 60% of our national budget and millions of construction and new aircraft costs for NASWI, the military is certainly not so pinched that it cannot justify a 21st century FCLP training venue for its Growler pilots. Case in point, the Navy was fully prepared to construct a wholly new Growler OLF in the swampy lowlands of eastern North Carolina for its pilots based in Oceana. Why was that cost so irrelevant there and yet relevant here? Section 1502.23 of NEPA addresses cost-benefit analysis:

If a cost-benefit analysis relevant to the choice among environmentally different alternatives is being considered for the proposed action, it shall be incorporated by reference or appended to the statement as an aid in evaluating the environmental consequences. To assess the adequacy of compliance with section 102(2)(B) of the Act the statement shall, when a cost-benefit analysis is prepared, discuss the relationship between that analysis and any analyses of **unquantified environmental impacts, values, and amenities**. For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and **should not be when there are important qualitative considerations**. In any event, an environmental impact statement should at least indicate those considerations, including factors not related to environmental quality, which are likely to be relevant and important to a decision.

By iteratively dismissing off-Whidbey FCLP sites due to monetary costs, the Navy has made monetary costs “*relevant to the choice among environmentally different alternatives.*” That analysis was not presented. The EIS lists total employee earnings but there is no analysis of where those earnings go or and how they affect the local economy, or most importantly how they balance against the costs to the public (e.g., schools, community services, and infrastructure costs), as an efficacious cost/benefit analysis would. For example, DEIS Section 4.5 addresses land use, but even though designation of APZs around OLFC would have a huge impact on property values, the DEIS does not evaluate those costs quantitatively or qualitatively, but instead skirts and trivializes those impacts with statements like this on page 4-147:

For the purposes of this analysis, conceptual APZs for OLF Coupeville are proposed for some action alternatives...If APZs are created, they could influence future land use decisions by the community **and may have a minor impact on the land under the APZs.**

Simply put, there is no quantified evaluation of cost/benefits or unquantified or qualitative evaluation of pros and cons of maintaining OLFC for FCLP use. However, Michael Shuman, economist and attorney, in a recent independent study² of the economic benefits of NASWI found the real costs related to Growlers on Whidbey Island to pale when matched against the unspoken costs to Island County.

The reasons offered to continue on-Whidbey FCLPs in Chapter 2 were not supported factually, as further examined below.

The DEIS in Section 2.4.2 goes on to state, “*Furthermore, moving all Growler squadrons to another installation would only move the potential environmental impacts from one community to another community.*” And what specifically is that imagined community? There is no analysis to substantiate what community might be affected, the acreage, or number of people, if any, that would be impacted. None of the mentioned off-Whidbey training sites received any such examinable analysis. The Navy’s conclusion, without backup, seems pulled out of thin air. But recall that eastern North Carolina OLF where the Navy was going? It encompassed about 30,000 relatively undeveloped acres. OLFC is less than 1000 acres and significantly encroached on at all sides. The impacts some generic unspecified community need serious consideration and site specificity, not out-of-hand dismissal.

And these two arguments skirt reality as well: “*The runway is aligned with the prevailing winds, with a painted simulated carrier landing area for day operations and flush-deck lighting to*

² Shuman, M. H., 2017. Invisible Costs: The \$122 Million Price Tag of Naval Air Station Whidbey Island. Available at <http://citizensofeyebysreserve.com/LinksAndFiles.html> .

simulate the carrier landing area for night operations...Ambient lighting is low in order to duplicate the at-sea carrier environment at night as closely as possible." As for runway alignment, although portrayed as an asset, it actually is a problem. Pilots should land and take off into the wind, as they always do on a carrier, but at OLFC they often land/takeoff with a tailwind of not more than 5 knots. The DEIS calls for 70% use of OLFC Path 32, but it cannot be used when southerly winds exceed 5 knots (i.e., landings on carriers are always into the wind, not with an unsafe tailwind). That is a problem at OLFC because southerly wind conditions predominate from fall through spring, often precluding use of Path 32. For example, in 2016 there were 46 days when OLFC was scheduled for practice, and of those, practice on 15 days was cancelled (33%), mostly in the winter and early spring when wind, rain, and fog conditions made use unacceptable. If Scenario A or B is implemented this cancellation rate would force far greater number of operations at OLFC into the more benign acceptable days of weather, mostly in summer when windows need to be open and folks are outdoors.

As for the putative dark conditions at OLFC, during the final 20-30 seconds of the approach on Path 32 pilots cross Admirals Cove at 200 to 300 feet above typical suburban residential lighting. On the rare occasions when Path 14 is used, pilots approach over residences and then cross at 200 feet directly over state route 20³ with its vehicle lights (i.e., the only island route linking Deception Pass and the Keystone and Port Townsend Ferries), as well as two county roads immediately bounding the landing strip. In that area cars run parallel and within a few hundred yards of the air strip, so headlights are coming at and with the pilots during landings and takeoffs. While there is some darkness, the peripheral residential and highway lighting is surely not something pilots would experience when landing on a carrier.

And from page 1-8 this: "*...Growlers do not normally land at OLF Coupeville. The proximity of OLF Coupeville to Ault Field allows for more training to be conducted per fuel load and provides a safe divert field if an emergency arises. Finally, OLF Coupeville is close enough to Ault Field so the LSO...may brief the participating aircrew on training procedures and then drive to the OLF in a reasonable amount of time to be present for the training.*" This really is working hard to come up with a reason. First, on December 28, 1982, a Prowler jet crashed into a wooded area a few hundred yards west of the OLF runway. Three died. It is hard to accept that existence of the Ault Field runway 10 miles away would have been of any use whatsoever. But the statement is correct; OLFC is too short to allow a landing and takeoff, so if a problem developed, the pilot might divert to Ault and perhaps not make it all the way there. For example, on December 16, 2016, a Growler at NASWI had the canopy blow off due to an over-pressurized cabin, critically injuring its two airmen. Had that over-pressurization occurred during

³ Traffic numbers along state route 20 in 2013 were recorded by the Washington Department of Transportation at an average weekday total of 8,483.

FCLP operations at OLFC, the Growler would never have made it back to NASWI. So, conversely, at off-Whidbey FCLP sites the pilot would be able to land right at the site potentially saving crew and aircraft. And finally, regarding the ISO crew briefing and the then short convenient drive to OLFC, how was that going to work for Oceana (Virginia Beach, VA) where the planned OLF in eastern North Carolina was well over a 100-mile road trip south?

And this even more curious stretch: *“Maximum transit distance from the home field is 50 nautical miles, which is the distance a Growler can travel on a fuel load in order to conduct eight to 10 FCLP passes with sufficient fuel to return to its home field.”* That was reiterated on page 2-17, *“Regional military airfields: ... Training locations need to be located within 50 nm of their home base due to fuel constraints.”* Those are strangely curious and misleading statements because the Growler has a distance range of 1,275 nautical miles

<http://planes.axleageeks.com/1135/Boeing-EA-18G-Growler>; so, allowing 15 miles per circuit of OLFC and 10 circuits equals 150 miles + 25 miles both to and from Ault Field, is 200 miles and well short of 1275. Further, recall from above that the new Growler OLF proposed by the Navy in eastern North Carolina for pilots based in Oceana was 100 miles to the south, or about 10 times the distance between OLF Coupeville and Ault.

Importantly, and as an example of superficial analysis, on page 2-18 *“Detachment training out of the region”* is dismissed with logical-sounding reasons. But on greater scrutiny, they all boil down to cost and convenience. There is no juxtaposed analysis of the cost and impact of FCLPs on Northern Puget Sound.

Also on page 2-8, the DEIS dismisses building a new OLF in an appropriate location, stating *“Constructing a new OLF is highly speculative and would require years, if not decades, to accomplish.”* The fact that this decision and action should have been done years ago should not be held up as an excuse to not begin the process today, rather than double-down on ignoring the problem. OLFC is obviously a substantially inappropriate site for FCLPs and trying to myopically continue to fit a larger square peg is hardly a viable long-term solution. The solution is perhaps to use detachment training (or some other off-Whidbey option) until the new OLF is constructed. The dollar excuses go on to say, *“...and it is unclear how to justify funding when OLF Coupeville fully satisfies the Navy’s requirements.”* Again, the Navy highlights costs and totally dismisses and discounts the residents it claims to be a good neighbor of. However, and importantly, a 21st century OLF for NASWI in an appropriate location in eastern Washington would certainly be economically beneficial to the state and would permanently solve the square peg disaster the Navy can no longer fit at OLFC.

But then this: *“Although moving FCLPs away from OLF Coupeville to a new OLF may reduce noise impacts to the community immediately surrounding OLF Coupeville, it would result in*

significantly more adverse impacts to the environment by result in significant new construction in another.” <sentence construction not COER’s mistake> Once again, gratuitous speculation with no backup is presented whatsoever. It smells like a cross between a cover-up and a contrived excuse.

While some of the Navy arguments may have some relevance, they cannot be evaluated without first subtracting the huge socioeconomic costs to central Whidbey Island—cost that:

- put our civilian health and hearing at risk
- poison our well waters due to use of toxic, life-time-lasting fire retardant foam,
- deflate our property values,
- interrupt and frustrate the education of our children,
- put our homes and businesses in harm’s way from crash risk,
- thwart us from conducting business conversation or to socialize with neighbors and friends,
- desecrate our historic Ebey’s National Reserve among other nearby refuges for peace,
- strain our civilian local taxes to cover support service costs for Navy personnel,
- tacitly allow a pregnant civilian to carry her child at documented risk to child, while the military’s noise-safety standards remove the pregnant enlistee from even lesser levels of noise exposure (see COER Comment 3.b).

These are reasonable civilian expectations to be safeguarded against. They are, in fact, our givens--our rights to life, liberty and the pursuit of happiness. There is nothing in the constitution to subjugate those rights to a military *preference* or mere convenience. There is no constitutional article or amendment granting the military carte blanche to place convenience and preference over the people. If off-Whidbey FCLP training were to actually jeopardize our “national defense,” all of this would be a non-issue. Moot. But this issue is not a matter of such jeopardy, but rather, paraphrasing the Navy’s own reasoning, it is a matter of its efficiency, duplication of equipment, costs, and convenience. Furthermore, as explained in CORE Comments Addendum 1, there are very strong reasons to not locate all the Growlers on Whidbey Island.

Conclusion: It is certain and inarguable that if on-Whidbey FCLP training became, for whatever reason, not available, the Navy would very quickly find and implement a viable FCLP training alternative. None of the Navy’s criteria and problems are insurmountable; instead they seem largely manufactured from arbitrary, disingenuous, and unsupported criteria. In failing to seriously evaluate off-Whidbey sites, the DEIS does not meet the critical above-discussed NEPA requirement (i.e., Section 1502.14, Alternatives Including the Proposed Action). The DEIS has not established that Navy interests, other than unspecified costs and its operational convenience, rise above the detriment that FCLPs are inflicting on the Northern Puget Sound area. There is no analysis of the cost/benefits or the pros/cons to show that the overall balance of interests tip to

military interests above the huge civilian impacts. This failing must be corrected with real and substantive analysis of the two or three of the most promising off-Whidbey FCLP training options. Among those dismissed in the DEIS his web site lists hundreds of potential western sites that might have produced a suitable location for such training, albeit in need of upgrading (http://members.tripod.com/airfields_freeman/index.htm).

(b) Obfuscating comprehension of the environmental impacts by artificially inflating the number of action alternatives to be analyzed.

The NEPA process seeks to ensure clarity and simplicity. Section 1502.7 addresses page limits:

The text of final environmental impact statements (e.g., paragraphs (d) through (g) of Sec. 1502.10) shall normally be less than 150 pages and for proposals of **unusual scope or complexity shall normally be less than 300 pages.**

The DEIS spans nearly 1400 pages. Most of those pages are largely redundant because of the nine possible actions analyzed, only three are notably different from each other, making the other six largely clutter. That is, the three Alternatives (1-3), for all practical purposes, differ very little (i.e., accept 35-36 new Growlers), whereas the three Scenarios (A-C) addressing the number of operations at OLFC and NASWI do notably differ. Even worse, the nine action alternatives are each expanded by a factor or two to accommodate average year versus high-tempo years. Consequently, there are up to 18 different action options and one no-action non-option, creating reams of redundancy and exhaustive minutia.

The issues the DEIS should have seriously addressed off-Whidbey training sites for FCLPs, as demanded by comments received during the scoping period. Those comments were trivialized and cavalierly dismissed as discussed in COER Comment 1 (a) above. Simply put, the Navy did not make a good faith effort to explore meaningful and consequential alternatives as NEPA requires in Section 1502.14 (a), and therefore, a realistic and simplified analysis of the actually consequential alternatives is necessary.

Conclusion: The 9 DEIS action alternatives (to 18 when average and high-tempo years are factored in) must be reduced to two or three on-Whidbey and two or three off-Whidbey alternatives. Because the Navy has shown strong resistance to off-Whidbey FCLP training and has not demonstrated a good faith effort in this regard, it cannot be entrusted to mount this effort independently. Therefore, the selection of off-Whidbey sites to be evaluated should be turned over to a select committee of impartial military and civilian experts who can reliably winnow down and identify the two or three most realistic and promising options for effective Growler FCLP training.

Comment 2:

- DNL FAILINGS -

The Problem: The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (a) used inappropriate annual average day rather busy day averaging, and (b) held up as scientifically valid an outdated and scientifically invalidated DNL threshold for high noise annoyance.

The Explanation: First, note that the Code of Federal Regulations 40 CFR Section 1502.24, Methodology and Scientific Accuracy, states unequivocally that “*agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements.*” In fact, below COER notes iterative DEIS excerpts indicating the Navy’s full support for applying the most current and efficacious science to the DEIS process. It appears, however, to have experienced some difficulty in applying that objective, as revealed in COER Comments 2(a) and (b) below.

(a) Used inappropriate of annual average day rather busy-day averaging.

The Day-Night Noise Level (DNL) averages do not inform as to the noise magnitude, duration, or number of single hazardous noise events but attempt to characterize the overall noise experience in a 24-hour period. Indeed, as stated in USACHPPM (1998; page 28),⁴ “although the DNL has been emphasized by the DoD and especially the Army as the primary noise exposure metric, this metric applies to community annoyance and is seldom related to behavioral or reproductive effects of wildlife;” nor is it effective or used to evaluate noise impacts on human health. It is strictly a controversial metric that dates back to the 1950s and is in need of contemporary updating.

The well-established standards for calculating an annual 24-hour average DNL is different for airports used daily versus those used intermittently. Those used daily are to be calculated based on all 365 days of use in the year; DNLs for airstrips used intermittently are customarily based on just the “busy days” of use. If airport use is just 50 days of use per year, the DNL should be averaged over just those 50 days, not all 365 days. Because the objective of the DNL is to analyze noise annoyance, that evaluation must focus on the days when the noise is occurring. If,

⁴ *Ecological Risk Assessment Framework for Low-Altitude Overflights by Fixed-Wing and Rotary-Wing Military Aircraft*. January 2000. Rebecca A. Efroymson (Oak Ridge National Laboratory), Winifred Hodge Rose and Sarah Nemeth (U. S. Army Construction Engineering Research Laboratory), and Glenn W. Suter II (U. S. Environmental Protection Agency). Research sponsored by the Strategic Environmental Research and Development Program of the U. S. Department of Defense under Interagency Agreement 2107-N218-S1 under contract DE-AC05-00OR22725 with UT-Battelle, LLC. Publication No. 5010, Environmental Sciences Division, ORNL. <https://www.researchgate.net/publication/252522677>

for example, one is trying to understand noise annoyance related to fireworks, it makes no sense whatsoever to calculate the average DNL for the year by averaging the 4th of July in with other 364 other “quiet days.” Those 364 days are not pertinent to understanding fireworks annoyance levels.

Because, the DNL relevant to evaluating jet noise annoyance can only be determined for days when the jets are flying, the use of 365-day or “average annual day (AAD)” averaging understates Growler FCLP noise annoyance and reduces the acreage and exposed population under each OLFC noise contour.

As explained by noise internationally prominent noise expert Sandy Fidell⁵ (Fidell Associates, Inc.), “DNL is, by definition, a 24 hour noise measure. Thus, DNL contours are intended to represent the aircraft noise exposure during a hypothetical, but “typical” or otherwise representative day.” So, DEIS use of Average Annual Day (or AAD; averaging over all 365 days) artificially lowered the DNLs. As Fidell explains, “*averaging the exposure created on one night per month over a year is a pretty big stretch: $10 \cdot \log(12/365)$ is about a 15 dB underestimate of exposure on nights when FCLP operations are conducted.*”

That is reaffirmed by a 2013 noise study conducted by Wyle for the Avon Park Air Force Range Complex.⁶ Because flight operations occurred, on average, 260 days of the year (not 365 days), Wyle appropriately used Average Busy Day (ABD) averaging: “*For noise modeling, total*

⁵ President, Fidell Associates; positions held at Bolt Beranek and Newman and successor organizations: Director, Environmental Technologies Department; Manager, Environmental Research and Data Systems Department; Senior Manager; Lead Scientist; Senior Scientist; Manager, Los Angeles Computer Laboratory. [Note: BBN Technologies (originally Bolt, Beranek and Newman) is an American high-technology company that provides research and development services. Based in Cambridge, Massachusetts, it is a military contractor, primarily for DARPA, and also known for its 1978 acoustical analysis for the House Select Committee on the assassination of John F. Kennedy. BBN of the 1950s and 1960s has been referred to by two of its alumni as the “third university” of Cambridge, after MIT and Harvard. In 1966, the Franklin Institute awarded the firm the Frank P. Brown Medal. BBN became a wholly owned subsidiary of Raytheon in 2009. On February 1, 2013, BBN Technologies was awarded the National Medal of Technology and Innovation.]

Fidell's Honors, Societies, and Advisory positions include: Acoustical Society of America (Fellow); Associate Editor, Journal of the Acoustical Society of America; U.S. Representative to International Standards Organization Technical Advisory Group on Community Response Questionnaire Standardization (ISO/TC43/SC1/WG49), and to ISO Working Group 45 on Community Response to Noise; Acoustical Society of America Representative to I-INCE Technical Study of “Metrics for Environmental Noise Assessment and Control”; Acoustical Society of America, Technical Committee; National Research Council Committee on Hearing, Bioacoustics and Biomechanics; Current or past member of the American National Standards Institute, Committee on Bioacoustics, Working Groups on Environmental Noise Measurement and Assessment and Auditory Magnitudes, and Community Response to Noise Levels; American Helicopter Society, Committee on Acoustics; IEEE Power Engineering Society, Audible Sound and Vibration Subcommittee; Design Review Group for FAA's Integrated Noise Model software; BBN Outstanding Publications Awards in 1989, 1991, 1996.

⁶ Revised FINAL Noise Study for the Avon Park Air Force Range, Florida. 2013. Wyle Report WR 13-05.

annual flight operations were converted to Average Busy Day (ABD) flight operations by dividing annual flight operations by the number of airfield operating days in a year..."

And still another study, this one for NAS Whidbey Island,⁷ provided this proper application of ABD averaging.

Noise contours for Naval air facilities are based on either the Annual Average Day or the Average Busy Day. The Navy document that addresses noise and land use compatibility around Naval facilities, OPNAVINST 11010.36A, Air Installation Compatible Use Zones (AICUZ), states:

Noise exposure contours will be developed using either the Annual Average Day, or Average Busy Day where analysis indicates that the Annual Average Day would not properly reflect the noise environment. For example, at air installations which are closed on weekends or where weekend operations are substantially less than weekday operations, the use of Average Busy Day is appropriate.

Because public attitudes toward an intermittent noise environment are most probably related to the days with higher noise exposure, **noise contours for a "busy day" of flying activity would be expected to relate more closely to public attitudes than contours for average annual daily activity.**

The 2005 AICUZ and related 2004 Wyle report for the NAS Whidbey Island likewise explain, *"For some military airbases, where operations are not necessarily consistent from day to day, a common practice is to compute a 24-hour DNL or CNEL based on an average busy day, so that the calculated noise is not diluted by periods of low activity"* (emphasis added).

Nevertheless, the DIES opted to use AAD with this rather strange explanation refuting its own AICUZ program (pages 3-12 to -13):

The intent of this EIS is not to directly support the AICUZ program [which calls for ABD], but to use best available science as required under NEPA to develop an accurate analysis of potential noise impacts from the Proposed Action. Thus, while related, the AICUZ standard is not necessarily an appropriate NEPA standard. Using ABD would greatly overstate the nature of the noise impacts at OLF Coupeville, thus providing decision makers and the public with an inaccurate analysis.

That statement does not explain why AAD is more scientifically robust than ABD. It provides no scientific explanation at all, and in the absence of reason or evidence, leads only to the conclusion that AAD yielded lower impacts. Not only is such an unfortunate motive fully inconsistent with NEPA, it contradicts the assertion that the DEIS will *"use best available*

⁷ Page 4-24 of the U.S. Navy's 1993 DEIS entitled "Management of Air Operations at Naval Air Station Whidbey Island." (Attributed to the Department of the Navy's Western Division Naval Facilities Engineering Command Engineering Field Activity Northwest for The Proposed Modification of Air Operations Management at Naval Air Station Whidbey).

science as required under NEPA to develop an accurate analysis of potential noise impacts from the Proposed Action.”

(b) Held up as scientifically valid an outdated and scientifically invalidated DNL threshold for high noise annoyance.

In 1992 the Federal Aviation Administration (FAA), based on a synthesis of 1978 studies, established in Regulation Part 150 that a maximum average DNL of 65 dB or above is incompatible with residential communities, and that communities in affected areas may eligible for mitigation such as soundproofing. That 65 DNL was derived by the Federal Interagency Committee on Noise (FICON) based on a dose/response curve—the Schultz Curve—showing that 12.3% of the population is highly annoyed by aircraft noise at a 65-dBA DNL. Accepting that, the FAA and Congress subsequently adopted 12.3% as the *annoyance threshold that should not be exceeded*, and 65 DNL became the standard denoting high annoyance.

The Navy’s Air Installations Compatible Use Zones (AICUZ)⁸ similarly adopted the 65 DNL for its land-use compatibility determinations concerning aircraft noise, and the DEIS (page 3-19) reflects its acceptance of the annoyance science:

As previously noted, the primary effect of aircraft noise on exposed communities is long-term annoyance, defined by USEPA as any negative subjective reaction on the part of an individual or group (USEPA, 1974). The scientific community has adopted the use of long-term annoyance as a primary indicator of community response, and there is a consistent relationship between DNL and the level of community annoyance (FICON [Federal Interagency Committee on Noise], 1992).

And AICUZ Section 3.2.2.1 further denotes reliance on DNL and the Schultz curve:

Scientific studies have found good correlation between the percentages of groups of people highly annoyed and the level of their average noise exposure measured in DNL (Schultz, 1978; U.S. Environmental Protection Agency [USEPA], 1978). As such, **DNL has been determined to be a reliable measure of long-term community annoyance with aircraft noise and has become the standard noise metric** used by the U.S. Department of Housing and Urban Development, FAA, the USEPA, and U.S. Department of Defense (DoD) for assessing aircraft noise exposure.

However, the scientific international community has recently found that the 1978 studies and Schultz dose/response curve were flawed, invalidating the 65 DNL threshold standard. On

⁸ AICUZ Study Update for Naval Air Station Whidbey Island’s Ault Field and Outlying Landing Field Coupeville, Washington. Final Submission. March 2005. (This study was produced by The Onyx Group of Alexandria, VA and San Diego, CA, under the direction of the NAVFAC Southwest)

March 9, 2016, the International Organization for Standardization (ISO)—an independent, non-governmental organization of 162 national standards bodies (including the U.S.)—published a revision of ISO standard on measurement and assessment of environmental noise. The revised ISO standard reflects 5 years of analysis by an ISO technical committee, which produced the new dose/response curve based on 21st century research. An American National Standards Institute (ANSI) version of the ISO standard followed, which further mirrors ISO findings and validates the ubiquitous concurrence of worldwide noise experts. Consequently, to be consistent with 12.3% annoyance standard, the correct high annoyance threshold level is 55 DNL. It follows that at 65 DNL the percentage is approximately doubled.

Conclusions: The DEIS holds up that, *“The intent of this EIS is not to directly support the AICUZ program, but to use best available science as required under NEPA to develop an accurate analysis of potential noise impacts from the Proposed Action.”* Because that is entirely proper and to be expected by the U.S. government, the Navy cannot claim to honor and uphold science and concurrently rely on an undefendable, 40-year-old, scientifically discredited 65-dB DNL standard, which if used, would understate the long-accepted percentage for high annoyance (12.3%) by a factor of 2. Nor can it simply dismiss its own AICUZ program advocating use of ABD averaging for DNL contours at intermittently used air fields, and instead use AAD averaging because it suits their objectives.

Both these highly inappropriate DNL abuses render the DEIS noise (DNL) contours meaningless and invalidate all the environmental impact statistics derived from and based on those false contours. The DEIS must correct those shortcomings and honestly and forthrightly revise all the 65 DNL considerations to 55 DNL.

NOTE: comment and analysis addressing these two DEIS failings has been prepared for COER by Sandy Fidell and has been submitted separately.

Comment 3:

- HEARING CONSERVATION ZONES and MORE -

The Problem: (a) The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. (b) Furthermore, none of those Navy health hazard protection measures address "intermittency," yet the DEIS seems to portray intermittency as important, but never defines it or explains how or why.

The Explanation: (a) **The Navy standards that protect their personnel from health and hearing harm due to excessive noise are ignored by the DEIS for civilians exposed to the same or greater levels of noise.** If Admirals Cove (refer to DEIS point of interest R-06) and other areas under the OLFC flight path were a military installation, the area would be designated as a *hearing conservation zone*⁹, and everyone living there would be required to wear significant hearing protection. A hearing conservation zone represents a "hazardous noise area" defined as those areas where the 8-hour time-weighted average exceeds 84 dBA (or 140 dB peak sound pressure level, SPL for impact or impulse noise) for more than 2 days in any month. Military and civilian personnel working in such areas are put in the Navy's Hearing Conservation Program and are identified as "at risk." The program requires frequent hearing tests and health monitoring, and according to section C1.3.2 of the program, when a permanent threshold shift (i.e., hearing loss) is identified, the commanding officer must act to prevent further hearing loss.

All Admirals Cove's 600+ suburban properties are candidate for hazardous noise zone designation, as are many other central and northern Whidbey Island. But the Navy chose not to reveal that in the DEIS and refused doing on-site noise testing to verify dose exposures, even though on-site testing is the cornerstone of the DoD's hearing conservation program for its

⁹ Navy and Marine Corps Public Health Center Technical Manual NMCPHC – TM 6260.51.99-2. Navy Medical Department Hearing Conservation Program Procedures. Navy and Marine Corps Public Health Center, September 15, 2008.
http://www.public.navy.mil/surfor/Documents/6260_51_99_2_NMCPHC_TM.pdf. Also see OPNAVINST 5100.23B, Navy Occupational Safety and Health (NAVOSH) Program Manual, and OPNAVINST 5100.19B, NAVOSH Program Manual for Forces Afloat.

personnel. Civilians supporting COER, however, did ante up and pay for the 2013 and 2016 JGL studies¹⁰ to provide actual on-site testing at critical locations (also see COER Comment #4).

In addition, COER had Paul Schomer (Standards Director, Emeritus, Acoustical Society of America, Schomer and Associates, Inc.)¹¹ analyze the 2013 JGL study data. First, he compared several different data sets related to overflights to assess whether and to what extent that data demonstrate that the overflights are causing noise levels in excess of the Hearing Conservation Program threshold. Using data from Table 2 of the 2013 JGL study (note JGL 2016 not available at that time), Schomer compiled Table 3.1 below, wherein he converted the JGL data to 8-hour time weighted average (TWA) doses for each outdoor JGL position and session of flyovers. He explains his methods in COER Comments Appendix A. Table 3.1 examines how exposure time (i.e., dose experienced by someone at a given station for the full session) compares with the Navy-defined "hazardous noise zone" threshold, requiring designation of a "hearing conservation zone."

Schomer found, for example, that anyone at position 1 (Admirals Cove, just a few blocks from DEIS point of interest R-06) would, in just two flying periods in one day, accrue a noise dose equal to 115% of the Navy's dosage threshold for a hearing conservation zone--i.e., >84 dBA for 2 days in any given month (see Table 3.1 below). Yet Growler practices at OLFC often exceed two sessions in a single day and up to 10 to 15 or more days of such FCLP practice have been conducted in a single month, and that is at the DEIS no-action level of 6100 annual operations. So, the OLFC area is significantly above the threshold for the Navy designation of a hazardous noise hearing conservation zone. For example, in 14 days in July 2012 there were 1,122 overflights of Admirals Cove, or an average of 80 overflights for each flying day that month. The noise that residents experienced that July exceeded the Navy's Hearing Conservation Zone threshold by more than 18 fold, assuming overflight noise averages that are similar to the JGL findings, which is nearly irrefutable¹². Keep in mind that at desired 35,000 operations level there would be an average of 1020 flyovers of Admirals Cove for every month --i.e., 35,000 total ops/(2 ops/flyover · 12 months) × 0.7 on path 32.

The Navy's 2005 Air Installations Compatible Use Zone study for NASWI predicted 6120 annual operations (equals 3060 flyovers) or an average of 255 flyovers per month (3060/12). That is the no-action alternative for the DEIS. That projected number of flyovers would amount

¹⁰ Jerry G. Lilly, P.E., President JGL Acoustics, FASA Member INCE, ASTM, NCAC. Whidbey Island Military Jet Noise Measurements. Initial Study June 2013 and Follow-up Study February 2016. Both studies available at <http://citizensofebeyreserve.com/LinksAndFiles.html>.

¹¹ International expert in environmental noise. See <http://www.schomerandassociates.com/pdfs/Resume.pdf>.

¹² JGL 2016 results show strong similarity of noise levels between sample times (low standard deviation), so that assumption is entirely warranted.

to about 7.3 times the exposure recorded by JGL for position 1(255/35 flyovers), which suggests much larger exceedances of the “Hazardous Noise” threshold than the 15% exceedance Schomer estimated in Table 3.1 for just two sessions of 35 overflights each (also see 2013 JGL Table 1). Average monthly exceedances under the no-action alternative would be about 423% of the Navy’s threshold for designating a hazardous noise zone (1.66×255), assuming similar noise levels per flyover⁴. The other positions are all likewise well above the Navy threshold.

Schomer also considered the extent to which the threshold would be exceeded inside homes. Table 3.2 (below) shows those related results when he converted the same outdoor 2013 JGL results to approximate indoor noise levels. The indoor levels for those two JGL sessions did not cross the hearing conservation zone threshold. His analysis assumed a 15 dBA decrease from the JGL outdoor readings, a generally accepted discount that is realistic for winter when all doors and windows are shut. But in the summer, with windows and doors open, the reduction will be far less. And most days of FCLP practice at OLFC occur during the 6 warm months of the year, largely due to frequent unacceptable wind events from late fall to early spring.

In considering impacts indoors versus outdoors, exposure/ dose is rarely all one or the other. Many flyovers will occur when residents, park visitors, and campers will be outdoors. Farm and construction laborers and gardeners, for example, have no option but to be outdoors. Position 1 is very close to an outdoor swimming pool used by Admirals Cove residents and another public pool is near position 2 and 3. Lifeguards put in a full day outside. Positions 2 and 3 are in agricultural fields, and position 4 is a youth athletic field where families gather for extended periods. Note, if it takes just two outdoor exposures during a month’s time to cross the Navy threshold, then any additional indoor or partially indoor exposures would exacerbate the exposure dose.

The DoD limits criteria applied by Schomer’s are further presented in COER Comments Appendix B. It is noteworthy that in the dose exposure table, there should be no exposure of Navy personnel to noise levels exceeding 115 dBA. Yet at Positions 1, 3, 4, and 6 that criterion was exceeded or very nearly exceeded and that was on both of the two discrete days of recording a single session at each station. Multiply that by many multiples of sessions and the problem is manifestly evident.

More--Another Navy criteria ignored by the DEIS: extensive literature analysis by the Navy indicated a number of correlations showing impacts of noise greater than 85 dBA on the developing fetus, as discussed in greater detail in COER Comments Appendix C. Consequently,

during pregnancy, the Navy has decided that women should not be exposed to extended periods of noise above 84 dB¹³:

Pregnant women should wear hearing protection when exposed to ambient noise levels above 84 dBA, including infrequent impact noise...Brief exposure (5 minutes per hour or less) of hearing-protected pregnant women to ambient noise above 84dBA in order to transit high noise areas is probably safe. Prolonged exposure to this level of noise is not recommended...Pregnant women should avoid any exposure to ambient noise greater than 104 dBA (corresponding to the need for double hearing protection), unless absolutely essential for quickly moving through a high noise area. The abdominal wall muffles (attenuates) the noise only somewhat and these very noisy areas may pose significant problems for the developing fetus.

And another notable study documented health low-frequency (LFN) noise impacts on the developing fetus: <http://oem.msu.edu/userfiles/file/News/Hv6n3.pdf> . Of course, the Growler is named for its LFN. That study examined 131 children ages 4 to 10 from Quebec. It showed a 3-fold increased risk of LFN-induced hearing loss in children whose mothers had been exposed to 85-95 dB, which was much more acute when it was LFN. Many reproductive women live under the FCLP flight path and are exposed to levels of Growler noise, including significant LFN, that far exceed safe levels for not only themselves, but even more so for their developing fetus.

(b) Navy health hazard protection measures do not mention "intermittency," but DEIS tries to portray intermittency as an important consideration. Throughout Chapter 4 of the DEIS, as well as other chapters, there is much made of a putative distinction between workplace (i.e., sort of constant noise) versus "intermittent noise," albeit no substantive or meaningful definition to segregate the two types was ever found. Nevertheless, in Chapter 4 intermittent noise is mentioned over 80 times, generally in the context of its being unique and having a wholly different presumed impact than other unspecified, presumably more constant noise doses. Here are a few examples:

- However, research conducted to date has not made a definitive connection between **intermittent** military aircraft noise and nonauditory health effects. Page 4-50
- This workplace exposure standard, which is being applied to outdoor noise levels, is not intended to accurately describe the impact of **intermittent** noise events such as periodic aircraft overflights but is presented as a "worst-case" analytical tool. Page 4-75
- However, research conducted to date has not made a definitive connection between **intermittent** military aircraft noise and nonauditory health effects. Page 4-79

¹³ From: <http://www.operationalmedicine.org/ed2/Enhanced/Pregnancy/EnvironmentalHazardsDuringPregnancy.htm>

In spite of the insinuated “*no-problem intermittent noise*,” in its own measures of protection for enlistees and civilians the Navy apparently does not recognize the distinction between the undefined “workplace constant” versus “intermittent-type” noise. That is, the military’s definition for designating a hazardous noise zone makes no distinction whatsoever based on intermittency of loud noise during an average day, but it is based on the noise dose in a time-weighted 8-hour average and the number of such exposure days in a month (i.e., more than two days crosses the threshold). As Schomer aptly and expertly shows from the JGL data, the threshold for designating a “hazardous noise zone” is exceeded iteratively and excessively in many of the populous areas under the OLFC flight path, and those calculations were based on 6120 operations, not 35,000. Furthermore, intermittency is not a consideration in the above-discussed protections instituted by the Navy to protect pregnant women from noise ≥ 85 dBA.

Conclusion: The DEIS needs to examine how many civilians would receive exposure doses that put civilians, children, and the unborn at risk levels at or above the Navy’s allowable dose risks for its own personnel. The Navy must also explain in the DEIS, why their personnel exposed to hazardous noise are considered to be “*at risk*” and are removed from noise areas, but residents, farm laborers, gardeners, contractors, pregnant women and their unborn children, etc., experiencing equal or far greater noise exposure levels somehow are **not** “at risk.” The DEIS should also fully define and explain the import of intermittency and how it overrides the established metrics used to evaluate noise impact on health: i.e., noise dose per unit of time.

NOTE: the Paul Schomer report to COER as referenced in the above discussion has been submitted separately.

Table 3.1. --Analysis of JGL 2013 data converted to 8-hour time weighted averages (TWA), showing time of exposure to noise levels 85 dBA to >115dBA at the four JGL outdoor by recording positions (stations) and how each exposure amount (or dose) relates to the Navy-defined hazardous noise zone (i.e., designation of a hearing conservation zone). The lower table shows the related results when the same outdoor JGL data are reduced by 15 dBA to presumably represent indoor noise levels. <Prepared by Paul Schomer; see Appendix A>

Total time over (s)	Cumulative time in seconds by position (1-4)				Navy full dose time exceeded		Actual percent of full Navy dose exposure by position			
	1	2	3	4	Seconds	Minutes	1	2	3	4
85 dBA	448	855	365	600	28,800	480	0.2	1.1	0.4	0.4
88 dBA	381	538	257	482	14,400	240	0.5	1.7	0.6	0.7
91 dBA	315	299	169	375	7200	120	0.8	2.0	1.0	1.5
94 dBA	254	152	97	267	3600	60	1.9	1.6	0.9	2.0
97 dBA	184	93	63	195	1800	30	3.1	2.4	1.3	3.3
100 dBA	128	50	39	135	900	15	5.6	2.4	2.0	6.6
103 dBA	78	28	21	76	450	7.5	9.1	3.6	3.3	8.9
106 dBA	37	12	6	36	225	3.75	7.1	3.1	1.3	10.2
109 dBA	21	5	3	13	112.5	1.875	11.6	4.4	1.8	10.7
112 dBA	8	0	1	1	56.25	.9375	10.7	0.0	1.8	1.8
115 dBA	2	0	0	0	28.125	0.46875	7.1	0.0	0.0	0.0
Percent of Navy permitted daily noise exposure for one flying session							58	22	14	46
Percent of Navy permitted daily noise exposure for two sessions (x2)							115	45	29	92
Number of flyovers at each position as recorded for that session and position							35	43	26	28
Percent of Navy permitted daily noise exposure dose per flyover							1.66	0.52	0.54	1.64
Percent of Navy permitted daily noise exposure dose for average of 255 overflights/month (i.e., 6120 operations/year = 3060 overflights/year/12 months = 255)							423	133	138	418

Table 3.2. -- Analysis of JGL 2013 data converted to 8-hour time weighted averages (TWA), showing time of exposure to noise levels 85 dBA to >115dBA at the four JGL outdoor by recording positions (stations) and how each exposure amount (or dose) relates to the Navy-defined hazardous noise zone (i.e., designation of a hearing conservation zone). The lower table shows the related results when the same outdoor JGL data are reduced by 15 dBA to presumably represent indoor noise levels. <Prepared by Paul Schomer; see Appendix A >

Total time over (s)	Cumulative time in seconds by position (1-4)				Navy full dose time exceeded		Actual percent of full Navy dose exposure by position			
	1	2	3	4	Seconds	Minutes	1	2	3	4
85 dBA	128	50	39	135	28,800	480	0.2	0.1	0.1	0.2
88 dBA	78	28	21	76	14,400	240	0.3	0.1	0.1	0.3
91 dBA	37	12	6	36	7200	120	0.2	0.1	0.0	0.3
94 dBA	21	5	3	13	3600	60	0.4	0.1	0.1	0.3
97 dBA	8	0	1	1	1800	30	0.3	0.0	0.1	0.1
100 dBA	2	0	0	0	900	15	0.2	0.0	0.0	0.0
103 dBA	0	0	0	0	450	7.5	0.0	0.0	0.0	0.0
106 dBA	0	0	0	0	225	3.75	0.0	0.0	0.0	0.0
109 dBA	0	0	0	0	112.5	1.875	0.0	0.0	0.0	0.0
112 dBA	0	0	0	0	56.25	.9375	0.0	0.0	0.0	0.0
115 dBA	0	0	0	0	28.125	0.46875	0.0	0.0	0.0	0.0
Percent of Navy permitted daily noise exposure for one flying session							2	0	0	1
Percent of Navypermitted daily noise exposure for two sessions (x2)							3	1	1	2
Number of flyovers at each position as recorded for that session and position							35	43	26	28
Percent of Navy permitted daily noise exposure dose per flyover							.057	.012	.019	.036
Percent of Navy permitted daily noise exposure dose for average of 255 overflights/month (i.e., 6120 operations/year)							14.5	3.06	4.85	9.18

Comment 4:

- JGL STUDY UNDULY FAULTED -

The Problem: (a) The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data. **(b)** Single noise events data comparing JGL on-site noise findings do not support DEIS modeled data.

(a) JGL noise study not “flawed.”

The Explanation: Section 1.9.5 of the DEIS (Other Noise Reports) attempts to discredit COER’s noise study conducted and prepared by JGL Acoustics, Inc.:

“• JGL Acoustics, Inc. Report on Whidbey Island Military Jet Noise Measurements (2013). In 2013, JGL drafted a report in support of litigation that purported to compare limited short term aircraft noise measurements with noise impacts reported in the 2005 Growler EA... The JGL report, however, contained methodological flaws that make it unreliable for purposes of relating those short-term measurements to the annual conditions assessed in the 2005 EA. It also did not result in any findings that question the validity of Navy modeling.”

The paragraph seems contradictory—paraphrased it says JGL study had “methodological flaws” making its findings “unreliable”; but then goes on to say the JGL results support validity of Navy modeling. Perhaps that either means the Navy modeling was likewise methodologically flawed or that the JGL “flaws” must have been of no real impact on the results because they reflect Wyle modeling. Jerry Lilly of JGL Acoustics¹⁴ challenged that DEIS statement:

The wording in the second sentence exposes a clear bias in the comment by using the word “purported” when in fact my report did compare short term measurements with noise impacts. Nowhere did I claim that the short term measurements were to represent an actual annual exposure. I did, however, predict hypothetical annual exposures based on assumed annual flight activity for the exact same flight patterns observed during the tests. The comment also used the words “methodological flaws”

¹⁴JGL Acoustics, Inc. has been owned and operated by Jerry Lilly since 1983, who is a graduate of Whitman College and holds a Master’s Degree in Engineering Acoustics from Penn State University (1975). He is a Fellow of the Acoustical Society of America (ASA); a board-certified member of the Institute of Noise Control Engineering (INCE); a licensed professional acoustical engineer in the state of Oregon, which is the only state with such a registration; and an active member of ASHRAE and the National Council of Acoustical Consultants (NCAC), ASTM.

without identifying the specific flaws. This would lead the reader to think that errors were made in the analysis, when I suspect that the methodological flaw is nothing more than assuming a certain number of annual over-flights and that all flight patterns would remain the same as during the test day. -JGL Acoustics

That would seem to be consistent with Navy criticism during the Zilly proceedings, where the Navy argued that the 2013 JGL noise study lacked statistical robustness because it was a stochastic one-time sample that might lack repeatability due to weather, etc. That possibility lacks pragmatic significance because all sites were well within one mile of the jet track, as explained by JGL:

Temperature profiles, humidity, and wind all can affect the resulting sound level, but these environmental effects are insignificant unless the listener is at least a mile or more away from the source. The greater the distance, the greater the effect. Sometimes the environmental conditions will cause the noise level to increase by 10 dB (or more) and other times it might decrease the level by 10 dB (or more). Atmospheric conditions will have no impact on the areas directly below (or within a mile of) the flight patterns. -JGL Acoustics

Furthermore, the Navy stated in the Zilly proceedings that the JGL data supported the Wyle predictions, as iterated in Judge Zilly's decision (page17.8): "*The Court finds significant the fact that when Mr. Lilly's measurements are converted into DNL, it is apparent that they are not significantly different or more severe from what was predicted in the 2005 EA.*"

Nevertheless, to resolve the possibility that the May 2013 JGL noise sampling was atypical of routine FCLPs at OLF, COER again commissioned a second set of samples in February 2016 with repeat sampling at two of the same sites and at two additional sites not sampled in 2013¹⁵. Samples at the 2016 repeated sites closely supported the 2013 measurements, while the two new sites showed that noise was extremely consistent across the full approach path over Admirals Cove. The consistency between the two independent sampling periods is expressed by the very low standard deviation and show that the JGL measurements were reliable and valid. As explained by JGL:

The primary purpose for this study [2016 study] was to determine if there is any significant difference in the measured noise levels when compared with the data collected in 2013...The fact that the measured change from 2013 to 2016 is less than half of the standard deviation of the maximum noise level within a single session suggests that the difference is insignificant.

¹⁵ The 2013 and 2016 JGL Studies are available at <http://citizensofeybysreserve.com/LinksAndFiles.html>.

It is also noteworthy that the SELs recorded by JGL (2013 and 2016) at position 1 and 6, which are directly under the path 32 approach over Admirals Cove, are very similar to the approach SELs for Growlers stated in the 2005 AICUZ. Likewise, Table 3.1-2 of the DEIS presents representative sound levels for Growlers in level flight, which shows that Growler SELs under the flight path are 116 dBA at 200 ft AGL and 109 dBA at 500 feet AGL (for jet speed at 400 kn and power at 44.5 %NC). These too reflect Lilly's recorded levels at positions 1 and 6.

Of further relevance, the National Park Service during 30 days in July and August 2016 conducted on-site noise recordings at a site (EBLA001) directly between JGL sites 2 and 3 under the FCLP path. The NPS reported¹⁶ noise levels within just 5 to 7 dBA of those recorded by JGL at sites 2 and 3. The DEIS validated that NPS noise study with this statement:

- National Park Service Report for Ebey's Landing National Historic Reserve (2016). In 2016, the National Park Service performed acoustical monitoring for the Ebey's Landing National Historic Reserve. The conditions measured by this study were actual aircraft noise over a 28-day period in June and July 2016. Although this differs from the affected environment modeled for calendar year 2021 in this EIS, the results of the study appear consistent with the Navy's previous noise analyses.

At COER's request JGL reviewed the NPS study and provided this comment:

The NPS report is excellent, with a lot of detailed acoustic analysis. Their finding of Lmax = 113 dBA is very close to my findings, even though their system was located far from my Position 1. It is important to note that the NPS used the words "extremely loud" in the second sentence of the conclusions. The NPS report is a very carefully worded document. Clearly, a lot of people spent a lot of time preparing this document. I doubt that they could find a better word than "extremely" to characterize the noise from the Growlers.

Of further import, modeled data does need to be verified with on-site data. Although the Navy asserted it was not necessary, studies reveal that modeled contours have failed to reflect actual on-site measurements. A study of 36 sites around Raleigh-Durham airport¹⁷ found the modeled data consistently underestimated the actual on-site noise by 5-15 decibels; that is, the actual noise levels were roughly 50% to 150% louder than the NOISEMAP (1991-1998) and INM (1999-2002) models had indicated.

¹⁶ Ashley Pipkin, 2016. Ebey's Landing National Historical Reserve Acoustical Monitoring Report, Natural Resource Report NPS/ELBA/NRR—2016/1299. U.S. Department of the Interior, National Park Service, Natural Resource Stewardship and Science, Natural Sounds and Night Skies Division, Fort Collins, Colorado.

¹⁷ Technical Report on Preparation of Day-Night Sound Level (DNL) Contours of Aircraft Noise During 2003 Raleigh-Durham International Airport North Carolina. March 2005. HMMH Report 295097.001. Harris Harris Miller & Hanson, Inc., 15 New England Executive Park, Burlington, MA 01803
http://198.1.119.239/~flyrduco/rdaircraftnoise/noiseinfo/downloads/RDU_2003_DNL.pdf

The need for on-site noise data in order to achieve accurate noise contour mapping is specified by the World Health Organization in an extensive analysis of the effects of noise on human health¹⁸:

While estimates of noise emissions are needed to develop exposure maps, measurements should be undertaken to confirm the veracity of the assumptions used in the estimates...As indicated in Chapter 2 modeling is a powerful tool for the interpolation, prediction and optimization of control strategies. However, models need to be validated by monitoring data...the accuracy of the various models available depends on many factors, including the accuracy of the source emissions data...

In that regard, the on-site NPS and JGL studies mutually corroborate the Wyle modeled data.

Conclusion: The Navy has provided no reason to dispute the veracity of the JGL noise findings or the NPS study. In fact, those studies provide on-site backup support for the Wyle modeled findings. The DEIS, instead of disparaging the JGL findings, should settle on full acceptance of the JGL and NPS studies and utilize all available data to enhance understanding the noise-exposure impacts and to “confirm the veracity of the assumptions” (WHO quote above) used by Wyle. In accepting the JGL findings, the DEIS must then accept their valid applicability to relating single noise event metrics where such metrics are customarily used and pertinent to evaluating impacts of excessive noise on health, park visitor experience, education, etc.

NOTE: the two JGL studies prepared for COER by Jerry Lilly have been submitted separately.

(b) JGL on-site noise findings do not support DEIS modeled data.

The Explanation: The DEIS presented copious amounts of modeled estimates of how noise at various points of interest (POIs) under the up to 18 different action possibilities will change under the action versus no-action alternatives. The only DEIS POI that is close to the positions used for on-site recordings in the JGL study is POI station R-06, which was located nearly equidistant between JGL positions 1 and 6, all on a direct line under the jet path. Each of those three sites is about 350-400 yards apart from each other.

DEIS Table 3.2-4 indicates that for the no-action base (3050 flyovers or 6100 operations) at POI R-06 the Lmax will reach ≥ 114 dB for 267 flyovers (i.e., events) per year. This disagrees with

¹⁸ Berglund, B., Lindvall, T. and Schwela, D.H (Eds.). 1999. HWO. Guidelines for community noise. World Health Organization, Geneva. < <http://www.bvsde.paho.org/bvsci/i/fulltext/noise/noise.pdf> >

JGL on-site recordings at site #1 just a few blocks away from R-06 (see Table 4.1 below). At JGL site 1 the Lmax exceeded 114 dBA on 5 out of 35 flyovers, or 14% of the flyovers. Applying that 14% to the no-action base provides that Lmax will reach 114 dB in 427 flyovers or events per year, a discrepancy of 160 flyovers or 60% (160/267). DEIS Table 4.2-3 indicates that at 35,000 operations there would be 2650 exceedances per year at R-06, whereas Lilly's data indicates it would be $0.14 \times 35,000(.7) = 3430$ exceedances, about a 30% discrepancy between on-site and modeled.

Table 4.1. – Summary noise data from 2013 and 2016 JGL Study positions 1 & 6.

Statistic based on 2016 measurements	Position 1 Empty Lot		Position 6 Deck of Residence
	Year: 2013	Year: 2016	Year: 2016
Maximum A-weighted Level (dBA)	119.2	118.0	117.9
Maximum Un-Weighted Peak Level (dB)	134.2	132.7	133.1
Session SEL (dBA)	128.5	127.3	127.6
Session Duration (minutes)	39	40	17
Total Jet Flyovers	35	42	17
Average SEL per Jet Flyover (dBA)	113.1	111.1	115.3

The point is that the data Wyle presented via modeling do not comport with on-site data. In that regard, it cannot be reasonably argued that the discrepancy between JGL site 1 and R-06 is because they are in different locations. While that may be, JGL positions 1 and 6 have virtually identical Lmax values and R-06 is equidistant between those two JGL positions, which rules out location differences as an explanation.

Conclusion: The information above points to a possible problem with the DEIS modeled single noise event data. In the absence of any on-site Navy/Wyle noise data, the DEIS needs to accept and incorporate the existing and mutually supportive JGL and NPS on-site data and fully revise and update its POI analyses.

Comment 5:

- EBHEY'S RESERVE -

The Problem: The DEIS (a) misconstrued an important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve, and (b) obfuscated forthright analysis and understanding of the impacts on visitor experience.

The Explanation:

(a) Misconstrued an Important Finding: The NPS conducted a noise study over 30 days in July and August 2015. The penultimate conclusion the DEIS drew from that study was:

Furthermore, the National Park Service's monitoring report demonstrates that, while military aircraft are loud, military aircraft operations are highly intermittent, with long periods of no military aircraft activity. For example, the report demonstrates that aircraft noise above 60 dB (normal conversation levels) occurred less than 1 percent of the time during the study period.

Not exactly. It is important to point out that the low-frequency rumble of the Growler carriers further than other noise, and therefore traverses the full Reserve throughout the entire time Growlers practice at OLFC. COER's acoustic expert, Jerry Lilly (JGL, Acoustics, Inc.)¹⁹ explains it this way:

Low frequency noise will have no affect at all in the calculated DNL or SEL values in the areas inside the DNL 65 contours. That is not the case for listeners more than 5 or 10 miles away from the Coupeville OLF. Residents far away will only hear the low frequency noise, because the mid-frequency and high-frequency noise will be rapidly dissipated with distance due to air absorption effects. You must keep in mind that the SEL and DNL values are based on A-weighted decibel levels, and the A-weighting filters out most of the low frequency noise. So even though the low frequency noise from the jets can be heard at great distances, the A-weighted sound level of this noise is very low (well below levels of concern to the Navy).

¹⁹ JGL Acoustics, Inc. has been owned and operated by Jerry Lilly since 1983, who is a graduate of Whitman College and holds a Master's Degree in Engineering Acoustics from Penn State University (1975). He is a board-certified member of the Institute of Noise Control Engineering (INCE), and he is a licensed professional acoustical engineer in the state of Oregon, which is the only state with such a registration. He is an active member in ASHRAE, the National Council of Acoustical Consultants (NCAC), ASTM, and the Acoustical Society of America (ASA).

Because the Reserve is entirely within about 5 miles of flight path 32, the low frequency noise is experienced by visitors throughout the entire Growler practice period, not 1% of the time, and it is highly obtrusive to painfully toxic, depending on jet proximity to the visitor. But either obtrusive or toxic, a practice session 40 minutes in duration produces 40 minutes of constant disturbance to any visitor expecting a quiet experience.

That in mind, the number of hours of Growler practice and the time of day and spacing of sessions becomes highly relevant, far more than an artificial average diluted across quiet times, which the DEIS and proposes as somehow indicative of park visitor experience. During the NPS study there were 417 Growler flyovers of the NPS site, which amounted to 10.4 hours of audible jet noise. That site (ELHR 001) is directly under the downwind leg of flight path 32.

So, at 25,000 operations per year (Scenario B, average year) Path 32 would experience $12,500 \times 0.7 = 8,750$ flyovers per year or an average of 730 flyovers per month, nearly double the number the NPS study recorded. At 35,000 operations (Scenario A) per average year Path 32 would experience 12,250 flyovers a year or 1020 flyovers per month, nearly triple the one-month number the NPS study recorded. Note too, those flyovers are based on Path 14 being used 30% of the time and Path 32 70%, and the record clearly shows that Path 32 would most likely be used 90 to 95% of the time. At 95% the flyovers would increase 11,875 for Scenario B or 16,625 for A (see COER Comment #6).

Given the 10.4 hours of audible military jet noise noted in the NPS report and that the whole time jets are practicing the noise significantly intrudes on visitor experience, those hours would increase under 70% use of Path 32 by about 1.75 times (i.e., $730/417$) to 18.2 hours/month for DEIS Scenario B, or 2.45 times ($1020/417$) to 25.5 hours/month for Scenario A. Presuming average-day visitor hours of 7:00 AM to 7:00 PM (a generous period), there are 360 visitor-day hours in 30 days. Based on that, visitors would be exposed to audible jet noise from about 5% to 7% of the average visitor day.

But Growlers have not operated between 7:00 AM and about noon. If that was continued, noise would be compacted into the visitor hours of noon to 7:00 PM or 7 hours \times 30 days = 210 hours/month. For that heavy visitor-use period the Growler noise exposure percentages would therefore go up to 9% to 12% of the heavily used afternoon to early evening period.

Conclusion: While the DEIS metric of <1% of the time is not inaccurate per se, it is disingenuous and deceptive because it artificially reduces actual impact on visitors to an artificial, misleading average. Revision of the DEIS to better and more realistically portray impacts on user experience is necessary.

(b) Obfuscated Analysis of Impacts on Visitor Experience: Section 4.5.2.2 speaks to noise impacts on visitor experience entirely in terms of annoyance rather than in terms of how jet noise affects visitor overall experience: “[A]nnoyance is a primary human response to recurring high noise levels, and the level of annoyance experienced...tends to vary...” While jet noise annoyance surely impacts the overall experience, as a single metric, it does not inform as to the visitor’s overall take-home. That is, where on the spectrum do they rate their experience on a 0 to 10 scale (*miserable/never re-visit again?*, *so-so?*, *had a great visit?*). And that is the really relevant question here—not how many folks were “annoyed” or had trouble with conversation, but rather how many had an experience slightly to totally ruined by iterative Growler flyovers. While the DEIS developed impressive tables enumerating conversation interruptions, it provided no studies that correlated conversation interruption with visitor overall take-home experience at the Reserve.

However, the DEIS in Section 4.5.2.2 did acknowledge that [n]oise may detract from the experience and enjoyment of visitors...if the type of noise is not perceived to “fit” with the setting (i.e., a technological noise in a natural setting)... aircraft noise has been found to be a primary environmental factor causing visitors to parks to become annoyed and may detract from their overall experience of a park or recreational activity (Krog, Engdahl, and Tambs, 2010a).” The problem with the DEIS is that the speech interruption rate or the noise frequencies or SELs, etc., have no identified correlation with actual experience.

Nevertheless, because of the DEIS obsession with “annoyance,” it is important to note that the old 65-DNL annoyance threshold is no longer valid; that is, the old 65-DNL standard to predict annoyance has been invalidated by the global scientific community, and the correct level is 55 dB (discussed in detail elsewhere in COER comment #2b).

DEIS section 4.5.2.2.1 attempts to redirect Growler noise impacts on visitor experience by insinuating that it is compromised by non-FCLP noise citing an NPS study, stating, “outside activities and development, including increased residential development in and near the reserve, vehicle traffic, and aircraft operations at OLF Coupeville that, the document notes, ‘are short-term, highly variable in their frequency, and range from minor to moderate in their intensity’ (NPS, 2005).”

That 2005 study, preceded any on-site noise level testing by 10 years. That aside, that argument tries ineffectively to conflate highway noise and residential development with Growler noise. In actuality, the orders of magnitude of difference between distant highway and overhead Growler noise are huge: a 40 dBA difference between 75 dBA SEL verses 115 dbA is SEL amounts to an 16-fold increase in loudness.

A subsequent DEIS excerpt from the NPS study, however, is more realistic, "...it is likely that aircraft noise impacts the perceived experience of visitors who come with expectations of seeing, hearing, and experiencing phenomena associated with a specific natural or cultural environment" (NPS, 2014)."

The DEIS, however, does go on to conclude, "The Proposed Action would not directly impact implementation of management plans for Ebey's Landing National Historical Reserve. However, aircraft operations at OLF Coupeville and, to a lesser degree, at Ault Field may indirectly impact management of the national historical reserve by degrading overall visitor experience." While that is true, it seems to try to convey that maybe it is not particularly significant.

Furthermore, the DEIS did not address the fact that the "elevated" sound levels during Growler flyovers violate NPS-governing laws, regulations, and orders, as delineated in the NPS sound study report:

The National Park Service Organic Act of 1916 states that the purpose of national parks is "... to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." The enabling legislation for the Reserve provides the additional mission of "preserving and protecting a rural community" and mandates that all NPS administered land within the Reserve shall be managed in accordance with the NPS' Organic Act (McKinley, 1993). In addition the Redwoods Act of 1978 affirmed that, "the protection, management, and administration of these areas shall be conducted in light of the high value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.

The wisdom of our forefathers who so diligently codified and enshrined that NPS mission for perpetuity would certainly agree that Growlers are incompatible with "*the high value and integrity of the National Park System*" and that Growler noise inflicts a significant "*derogation of the values and purposes for which these various areas have been established.*" The NPS Report further validates the great importance of quiet for visitors of our national parks:

A 1998 survey of the American public revealed that 72% of respondents thought providing opportunities to experience natural quiet and the sounds of nature were a very important reason for having national parks, while another 23% thought that it was somewhat important (Haas, G.E., & Wakefield, T.J. 1998. National parks and the American public: A national public opinion survey on the national park system. Washington D.C. and Fort Collins, CO.: National Parks and Conservation Association

and Colorado State University). In another survey specific to park visitors, 91% of respondents considered enjoyment of natural quiet and the sounds of nature as compelling reasons for visiting national parks (McDonald, C. D., Baumgarten, R. M., and Iachan, R. 1995. Aircraft management studies: National Park Service Visitors Survey. HMMH Report No. 290940.12; NPOA Report No. 94-2, National Park Service, U.S. Department of the Interior.).

Going on, the NPS Report looks to direction for management of natural soundscapes and notes NPS 2006 Management Policy 4.9:

The Service will take action to prevent or minimize all noise that through frequency, magnitude, or duration adversely affects the natural soundscape [acoustic resource] or other park resources or values, or that exceeds levels that have been identified through monitoring as being acceptable to or appropriate for visitor uses at the sites being monitored (NPS, 2006a)...The Service will restore to the natural condition wherever possible those park soundscapes that have become degraded by unnatural sounds (noise), and will protect natural soundscapes from unacceptable impacts.

The report concludes by noting that Federal laws and regulations governing National Parks should be addressed within an EIS:

The presence of military aircraft flying over or near [the Reserve] increases anthropogenic noise at the Reserve. The information in this report should be considered when evaluating impacts to the Reserve and its resources as defined by Federal laws, regulations, and executive orders, and according to policies established by the Director of the National Park Service.

The DEIS does not adequately analyze or show how the undisputed increased noise impacts will affect the management and conservation of the park. Furthermore, the DEIS does not analyze or disclose how the proposed alternatives will comply with the federal laws, regulations, executive orders, and National Park Service policies relevant to the preservation of Ebey's Landing Historic National Reserve.

Conclusion: The DEIS has used a fallacious 65-DNL annoyance standard to index Growler noise impacts on Park visitors, and has ignored the conflict between Growler FCLPs at OLFC and NPS-governing laws, regulations, and orders. These are significant impact problems that must be addressed and corrected.

And political sidebar question: Will the NPS sound study information and the impacts it reveals actually be seriously respected and adjudicated within the context of the DEIS, or will the above-mentioned "federal laws, regulations, and executive orders" be dismissed as secondary to

military convenience. An affirmative answer raises a second question: Do we as a country with all the rights bestowed by the Constitution really have to accept *the sound of war* into the very few rapidly diminishing places where we as a people can retreat to our historical heritage and our biological roots in the hope of finding and regaining a sense of peace and sanity?

In addition, COER provided comments to the Section 106 Process (see COER Comments Addendum 5) that, among other things, speaks to the special impacts that low frequency noise (LFN) has on structures and health. The impacts of LFN are extremely pertinent because Growlers are noted for the LFN they produce. The DEIS did not consider LFN effects, and must do so if it is to provide credible analysis of LFN on the Reserve's historical structures. The JGL review and analysis of the National Park Service noise study prepared by Jerry Lilly for COER has been submitted separately; in addition, the JGL noise studies (2013 and 2016) contain data from which LFN components can be extracted.

Comment 6:**- PATH 14 versus 32 -**

The Problem: The DEIS noise levels are based on about 30% of the proposed 8800 to 35,000 average-year operations at OLFC being conducted on Path 14. Based on the usage record, that assumption is unsupported and highly imaginative.

The Explanation: Since 2013, when the transition to Growlers was relatively complete, the highest use of OLFC Path 14 has been roughly 2% to 10%, which is consistent with base commander Captain Nortier's declaration to Judge Zilly (*Citizens of Ebey's Reserve v. U. S. Navy Citizens of Ebey's Reserve*, 2015) stating Path 14 is usable only on rare occasions:

OLF Coupeville has one runway oriented generally North/South, and is called runway 32 or runway 14, depending on direction of approach. The weather and winds determine the direction in which to conduct FCLPs. The local prevailing winds support runway 32 usage most of the year. FCLP flight patterns for OLF Coupeville were historically used by the EA-6B and A-6 aircraft, which shared similar flight characteristics. In the past, the flight pattern for runway 14 was adjusted for noise abatement purposes for homes on the eastern coastal boundary. Additionally, noise abatement procedures were designed to avoid flying over Long Point and a bird farm that is no longer in existence, and those procedures are still followed. Even with these modifications to the pattern, the EA-6B and A-6 could operate within acceptable parameters and use runway 14 when the meteorological conditions favored this runway. The EA-18G has a slightly different required flight profile in the FCLP pattern due to differences in weight and flight characteristics. As a result, the EA-18G cannot safely operate within the confines of the daytime runway 14 parameters currently in place. The Navy is examining runway usage and historical noise abatement procedures as part of its ongoing EA -18G Environmental Impact Study. Until that study is complete, runway 14 is rarely used for FCLPs.

The noise abatement procedures referred to are quite curious but may relate to a settlement regarding a three-property-owner avigation easement over Long Point under Path 14, even though the noise impacts on the rest of the population under Path 32 are far greater, yet without such an easement. But that may be relevant, but a separate issue. Captain Nortier's declaration clearly speaks to the substantial unsuitability of Path 14 for Growler FCLPs.

Rather incredibly, the 2004 Wyle Report (i.e., source of the 2005 EA contours) was based on 50% use of Path 14, as was the 2012 Wyle report (for the 2012 EA) published October 2012 (Wyle Table A-1, page A-6). Growlers had been conducting FCLPs at OLFC increasingly from 2009 to 2012. So, the Growler use problem associated with Path 14 addressed by Captain Nortier in his declaration were surely known to the Navy and to Wyle well before the October 2012 EA publication date.

In fact, FOIA records reveal that in 2012 only about 22% of the FCLPs (bounces) were conducted on Path 14 (see Table 6.1, below), and of those, it is not clear how many were Prowler bounces, which unlike Growlers were able to safely use that path. So, in reality, that 22% was less because Prowlers represented some portion of that 22%. However, before 2012 when Prowlers were primarily using OLFC, even then, Prowler usage (2009–2011) of Path 14 averaged only 28% (see Table 6.2 below).

Why then was the 50% assumption used by Wyle in October 2012 when it was certainly known that Growlers could not use Path 14 at anything close to that 50% level? The answer seems to be that use of 50% would diminish the estimated magnitude of the noise impacts (contours) around Path 32, which of course, helped to facilitate the finding of no significant impact.

That significant 2012 EA (Wyle) Path 14 distortion, creates a credibility problem for the 30% Path 14 assumption in the DEIS, as further amplified by the actual Growler operations in 2013 to 2015. In those all-Growler years, the Path 14 use was <5% and reached only maybe 10% in 2016. Note too, the assumed 30% use of Path 14 increases absolute numbers for high-tempo years. What has changed so that it is now possible to conduct 10,500 (average year) to 11,500 (high tempo) FCLP operations/year on path 14, when the 800 operations were possible?

Simply put, the DEIS assumptions have no basis in reality, which is why the DEIS had to resort to vague, obfuscatory reasoning to create a reasoned illusion:

Page 4-9: Historically, the runway utilization goal at OLF Coupeville has been to split FCLPs equally between Runways 14 and 32. In recent years, however, due to a non-standard pattern on Runway 14, the utilization of Runway 14 has been significantly lower. This narrower pattern requires an unacceptably steep angle of bank for the Growler due to performance differences from the Prowler flying the pattern. The proposed OLF Coupeville FCLP patterns (day and night) are depicted in Figure 4.1-1; under Alternative 1 (and all action alternatives), these patterns will be used in order to improve the standardization of training and enable more use of Runway 14. The standard FCLP patterns will result in runway use percentages based on the prevailing winds rather than aircraft performance and quality of training. Based on meteorological conditions at the OLF, the projected runway utilization for Runway 14 is approximately 30 percent, and the remaining percentage is to be utilized on Runway

32...The high-tempo data represent years when the number of events may increase due to operational needs. During a high-tempo FCLP year, total airfield operations could increase approximately 10 to 11 percent at OLF Coupeville based on the operational scenarios selected as compared to the corresponding alternative... Growler operations would be conducted in a manner similar to the current Navy aircraft training missions conducted at the NAS Whidbey Island complex with the exception of standardizing the FCLP pattern for Runway 14 at OLF Coupeville utilizing the same pattern for day and night operations.

The three patterns or sub-paths or patterns for Path 14 depicted in DEIS Figure 4.1-1 are no different than then they have ever been. Most importantly, note that the three lines depicting the patterns or sub-paths join into **one single line (sub-path) on approach touch-down, and takeoff**, which is exactly where the putative problem occurs for path 14 use. Obviously, those portions of the pattern are the tightest and most exacting aspects of the FCLP and not subject to waffling. And, with no information to the contrary, it is reasonable to assume that nothing has happened or is expected to happen geologically **to move the runway left or right or its touch-down spot, or reshape the terrain around the runway, or alter the “prevailing winds” or average annual “meterological conditions.”** So, it is not at all clear how Growlers can now safely use runway 14 when nothing has changed to make what was only rarely possible suddenly become feasible due to “*standardizing*” (whatever that is?). The DEIS explanation above lacks substance and believability, especially in consideration of the 2012 EA’s bogus 50% use assumption for Path 14.

Conclusion: Given the unsubstantiated and dubious feasibility of achieving a 30% FCLP use of Path 14, the final EIS must adopt a realistic range of use-percentages for Paths 14, and 32 and develop new noise contours and impact analyses based on the high and low values of that range. That range should span from the actual use record to the optimistic assumption proposed in the DEIS: that is, a 95:5 split (path 32:14), reflecting historical use, to a 70:30 (path 32:14), reflecting the current DEIS assumption. The impacts throughout the DEIS must clearly address both ends of that range.

Finally, this important caveat to the dubious 70:30 split: There must be a guarantee that neither percentage can be exceeded—i.e., if they fall short of projection on one path, they don’t make it up on the other path.

Table 6.1. -- Number of jet FCLPs (i.e., bounces, where 1 bounce = 2 operations) at OLF from 2007 to 2012. Numbers in brackets are the percentages of day, night, and combined bounces on path 32 (the west downwind/south approach; path 14 is east/north approach). <Percent of Path 14 bounces in column on right.>

Year	Day Bounces		Night Bounces		Combined		Total Bounces	% Night <P32%>
	Path 14	Path 32	Path 14	Path 32	Path 14	Path 32		
2007	709	575 [48%]	197	507 [72%]	906	1082 [64%]	1988	35 <45%>
2008 ^a	162	96 [37%]	0	168 [100%]	162	264 [62%]	1274 ^a	na ^a
2009	565	1437 [72%]	14	630 [98%]	579	2067 [78%]	2646	24 <22%>
2010	1021	1368 [57%]	256	593 [70%]	1277	1961 [61%]	3238	26 <39%>
2011	686	2356 [77%]	315	1332 [69%]	1001	3688 [79%]	4689	28 <21%>
2012	454	1288 [74%]	596	2496 [81%]	1050	3784 [78%]	4834	63 <22%>
Avg								35 <28%>

^a The 2008 data provided are incomplete; hence strata data do not total across to 1274, the Navy's reported totals for those years.

Table 6.2. -- OLFC use for FCLP practices in 2012 from FOIA data provided to COER by the Navy

Month 2012	Arrivals (estimate) ^a	Day Touches		Night Touches		Total T&G + Arv.
		Successfu l	Wave-offs	Successful	Wave-offs	
Jan (7 days)	42	194	17	271	25	507 + 42
Path 14	3	26	2	0	0	28 + 3
Path 32	39	168	15	271	25	479 + 39
Feb (5 days)	24	37	5	223	17	282 + 24
Path 14	5	0	0	46	4	50 + 5
Path 32	19	37	5	177	13	232 + 19
Mar (3 days)	16	102	4	76	4	186 + 16
Path 14	0	0	0	0	0	0
Path 32	16	102	4	76	4	186 + 16
Apr (10 days)	28	271	20	39	1	331 + 28
Path 14	21	213	14	23	0	250 + 21
Path 32	7	58	6	16	1	81 + 7
May (1 day)	1	2	1	0	0	3 + 1
Path 14	0	0	0	0	0	0
Path 32	1	2	1	0	0	3 + 1
Jun (11 days)	76	241	24	584	65	914 + 76
Path 14	33	186	13	175	20	394 + 33
Path 32	43	55	11	409	45	520 + 43
Jul (14 days)	94	164	17	858	83	1122 + 94
Path 14	17	0	0	178	21	199 + 17
Path 32	77	164	17	680	62	923 + 77
Aug (1 day)	4	0	0	43	3	46 + 4
Path 14	0	0	0	0	0	0
Path 32	4	0	0	43	3	46 + 4
Sep (9 days)	81	332	40	540	61	973 + 81
Path 14	7	0	0	68	10	78 + 7
Path 32	74	332	40	472	51	895 + 74
Oct (3 days)	12	29	25	79	15	148 + 12
Path 14	0	0	0	0	0	0
Path 32	12	29	25	79	0	148 + 12
Nov (5 days)	27	195	22	94	11	322 + 27
Path 14	4	0	0	45	6	51 + 4
Path 32	23	195	22	49	5	271 + 23
Dec (0 days)	0	0	0	0	0	0
TOTAL (79 days)	405	1567	175	2807	285	4834 + 405
Path 14	90	425	29	535	61	1050 + 90
Path 32	315	1142	146	2272	224	3784 + 315

^aAssumes each plane makes 12 bounces (i.e, total T&G/12)

Comment 7

-SAFETY-

The Problem: The DEIS has basically skirted or only superficially analyzed the actual risks associated with FCLP operations at NASWI and OLFC. Neither has it presented an effective solution that would dispel the risks and incompatibility between Growler FCLPs and unchecked encroachment around OLFC.

The Explanation: While OLFC does not meet the operations threshold for designating accident potential zones (APZs), in 2011 and 2012 flight carrier landing practice (FCLP) operations came very close to crossing that threshold, which is 5000 operations at either end of the runway. It is important to understand that the 5000 operations threshold is a completely arbitrary figure; it is not a number at which risk becomes suddenly manifest. Each operation involves risks, and hence, the greater the number of operations the greater the risk. The DEIS says as much on page 4-15: *“Analysis of flight risks correlates Class A mishap rates and BASH with projected airfield utilization. The Proposed Action would add 35 or 36 Growler aircraft and increase overall airfield flight operations at the NAS Whidbey Island complex, thereby increasing the risk of a mishap.”*

Operations at OLFC are particularly risky due to very fundamental considerations that are not found at contemporary airfields where FCLPs are conducted. Those include substandard runway length (–3000 feet off standard) and the very limited buffer acreage (–29,000 acres off standard) encroached on all sides by all incompatible land uses. Put another way OLFC acreage is about 1.5 square miles, whereas a contemporary 30,000 acre outlying field could be represented by a circle 3.8 miles (7.6 mile diameter) in all directions from OLFC's center or a square area of about 7 × 7 miles, an area encompassing all of the town of Coupeville, as well as numerous residences, parks, and facilities east and west of OLFC.

And there other risk factors: (1) the potential for pilot error, many being student pilots (see <https://aviation-safety.net/wikibase/wiki.php?id=57241>: fatal OLFC student crash 28 Dec. 1982, three killed), (2) the F-18's deplorable safety record, (3) takeoffs and landings are the two most dangerous segments of sorties, (4) things fall off these high-power jets, and (5) bird aircraft strike hazards (BASH), which are especially common during low-level operations. These are further discussed in COER Comments Appendix D to F. Regardless of whether APZs are designated or undesignated, OLFC presents a major safety risk with potentially dire consequences.

DEIS page 4-261 states, "While it is generally difficult to project future safety/mishap rates for any aircraft, the Growler has a well-documented and established safety record as a reliable aircraft."

That is misleading and sadly not the case. Actually, the Growler's F-18 airframe is one of the most accident-prone military jet airframes in history. Military jets as a whole are 67 times more likely to crash than are passenger jets, so that 67 would be multiples higher for the Growler because it is more accident-prone than other military jet airframe. Between 1980 and 2014 the F-18 sustained 39 incidents, while its predecessor, the EA-6B (Prowler), sustained just 7 incidents, even though the Growler flew far fewer sorties (see COER Comments Appendix 7.A). That equates to 1.15 incidents per year for F-18 versus 0.21 incidents per year for the Prowler. On a per-year basis uncorrected for the number of sorties each airframe has flown, the F-18 airframe is 5.5 times more likely to sustain an incident than the Prowler²⁰. Given that a sortie is constituted by (1) a takeoff, (2) flying to/from a destination, and (3) a return approach to landing, then every individual FCLP constitutes a sortie (downwind leg equating to a short version of #2). Therefore, crash or incident rate per sortie is the most relevant and telling statistic to risk because it can be directly cross-compared with the number of FCLPs.

Furthermore, while there are claims that the Growler becomes safer the longer it is flown, the record since 2014 (not included in COER Comments Appendix D) does not support that presumption. Instead it reflects a continuation or exaggeration of significant incidents. Crash incidents from in 2014 through 2016 with F/A-18 numbered 5 for type C, 1 for D, 2 for E, 1 for F, and 2 for FA-18 Hornet for a total of 11 crashes ranging from landing, takeoff, and from air ([https://en.wikipedia.org/wiki/List_of_accidents_and_incidents_involving_military_aircraft_\(2010%E2%80%93present\)](https://en.wikipedia.org/wiki/List_of_accidents_and_incidents_involving_military_aircraft_(2010%E2%80%93present))).

Another credible, independent analysis states, "Growler jets are much more difficult to fly and not made as well as the older Prowler jets," which is why their research found the Growler to be 10–36 times more likely to crash than the Prowler, as depicted in the tables and figure below <https://washingtonenvironmentalprotectioncoalition.org/3-how-growler-jets-harm-people/3-2-growler-jets-36-times-more-likely-to-crash-than-prowler-jets>.

²⁰ The incident totals here are not inclusive of all of 2014 and include none of 2015 and 2016, during which time there have been a large number of fatal and near fatal F-18 incidents, one in December 2016 at Ault Field that could have but luckily did not impact on Oak Harbor.

Grumman EA6B Prowler versus McDonald Douglas F18 Hornet and Growler

Accidents (note: Growlers are an electromagnetic warfare version of the F 18 Hornet)

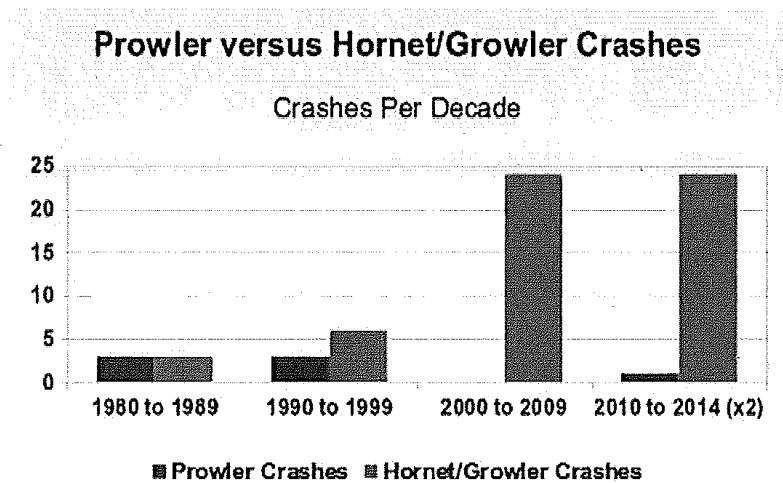
Decade	Prowler Crashes	Hornet/Growler Crashes
1980 to 1989	3	3
1990 to 1999	3	6
2000 to 2009	0	24
2010 to 2014 (x2)	1	12x2 = 24

Last 35 years: 7 Prowler Jet Crashes and 45 F18 Hornet/Growlers Jet Crashes

Last 25 years: 3 Prowler Crashes and 42 F18 Hornet/Growler Crashes: Ratio 13 to 1.

Last 15 years: 1 Prowler Crash and 36 F18 Hornet/Growler Crashes: Ratio 36 to 1.

Here is the Graph based on the above table:



While pilot error is part of the incident data, it factors in as part of the reason for the higher F-18 incident rate simply because of greater human performance demands. For example:

United States Navy Blue Angels McDonnell-Douglas F/A-18 Hornet, BuNo 162437, crashes into a residential neighborhood...killing the pilot. Military investigators blame pilot for his fatal crash. A report obtained by The Associated Press said that Lieutenant Commander Kevin Davis got disoriented and crashed after not properly

tensing his abdominal muscles to counter the gravitational forces of a high-speed turn. (April 27, 2007)

United States Navy Blue Angels McDonnell-Douglas F/A-18 Hornet, On June 2, 2016 Blue Angels no. 5 crashed on takeoff while preparing for an airshow. The plane crashed approximately two miles from the end of the runway. Marine Capt. Jeff Kuss, the pilot, did not eject and died in the crash. Observers speculated that he did not eject because he was directing the aircraft away from a large apartment complex. The similarities to FCLP operations two miles from schools and a hospital are obvious. That was the third FA 18 crash that week.

In addition, as reported by The Hill (see COER Comment Appendix D), it is likely that hypoxia may be contributing to the pilot-caused accident rate of the F-18 airframe (Growler). It is perhaps a background contributor to the 22 Growler and F/A-18E/F crashes since 2002 and certainly a factor in hundreds of “incidents” since 2006 attributed to misjudgment, disorientation, fatigue, and distraction. According to the *Navy Times* 5/8/16: “*Nothing scares Hornet pilots more than losing oxygen — and it happens all the time.*” This article details the hypoxia (low oxygen) problem in the Growlers, which pilots have identified as their top concern. “Naval Air Systems Command is scrambling to implement fixes, but the brass has underplayed the severity and frequency of the danger since it emerged in a February 2016 congressional hearing, according to interviews with pilots and official reports.”

Another exacerbating risk potential is “wave-offs” from FCLP touch-down, which increase pilot workload at a critical moment in the FCLP approach and add to the risk, as does the fact that FCLPs are often being conducted by student pilots managing the most incident-prone jets in history. This makes OLFC a tragedy in waiting.

A retired Northwest Airlines Captain²¹ and military flight instructor explains the risks as follows.

It is my opinion that [FCLPs] at OLF utilizing runway 32, with the potential for engine failure, mechanical disability, or control loss during low level approaches, would dictate immediately maintaining runway heading and climbing for altitude to assess the situation if possible. Directly ahead within approximately a quarter mile is the location of Whidbey Island’s Transit Fuel Depot, and an additional mile further, the township of populated Coupeville. Operating on runway 14 would put the community of Admiral’s Cove, within approximately 1 to 1.25 miles, directly in line for potential disaster considering similar circumstances. The AE-18G Growler has a high approach speed of 160 to 180 knots dependent upon aircraft weight and density altitude, a speed greater than the AE-6 Prowler, and therefore travels a greater distance

²¹ [REDACTED] Captain, Retired, Northwest Airlines, 38 years of experience, totaling 28,000 hours in a variety of jet powered aircraft; holds licenses in ground instruction for FAA basic, advanced, instructor, and flight engineer certification.

whether in a banked turn or straight ahead, thus creating greater potential for reaching the locations previously mentioned. Impacting the ground at high speeds utilizing aircraft carrier approach, landing, and go around techniques could easily carry the aircraft's momentum to these distant locations with disastrous results.

Of the many reasons for dismissing naval carrier practice at OLF, to include noise and others, this safety issue must be the most predominate...My first impression of this 5400 foot runway is that it is not able to accommodate the high speeds that the AE-18G needs to maintain in a safe training environment and especially if an emergency arises with only one course of action that may or may not put the surrounding population in jeopardy!

The Admirals Cove subdivision has a typical suburban density. On approach on Path 32, Growlers cross the full center of that neighborhood at elevations of about 200 to 400 feet above the residences at a rate of about one overflight every 70 to 85 seconds. Nearly all of that development is within an undesignated APZ-1, which if designated, should have no residential development (2005 AICUZ). Yet Admirals Cove and adjacent Pelicar Shores includes over 600 residential properties. And on Path 14 there are similar issues.

Furthermore, within that approach over Admirals Cove, large numbers of migratory waterfowl, resident gulls, eagles, and a wide variety of harriers, exacerbate bird strike (BASH) risks and the potential for serious accidents. And Section 3.3.1.2 recommends, *"To reduce the potential for BASH, the FAA and the military recommend that land uses that attract birds (e.g., agricultural fields, landfills) be located at least 10,000 feet from an airfield."* Yet, agricultural fields are located squarely under and throughout the downwind leg of Path 32. The DEIS does seem to recognize the problem somewhat on page 4-116: *"With an increase in operations, the potential for BASH increases slightly; however, the risk is managed through continued application of BASH measures, and the risk of BASH would be expected to remain similar to existing levels."*

Several problems with that dismissal. First, to examine, *"With an increase in operations, the potential for BASH increases..."* Assuming, reasonably enough, a direct relationship, if risk is X for 6000 operations, then presumably for 36,000 operations, the risk is approximately 6X. Basically, 36,000 operations is what the Navy has proposed under Scenario A Ther. So it seems quite disingenuous to refer to a six-fold increase, or even a two-fold doubling, as a "slight increase" in risk or that risk will *"remain similar to existing levels,"* especially when for BASH avoidance, *"there is no proposed change planned to existing flight procedures for Ault Field or OLF Coupeville (page 4-116)."*

Second, the DEIS did not identify how it *manages or continually applies BASH measures.* For example, Navy data on Prowler/Growler BASHs of NASWI show that from June 26, 2001, to

September 6, 2013, a total of 133 strikes occurred. And, as phoned into the Navy's comment line, on August 17, 2016, afternoon FCLPs provoked 100s up to ≤ 1000 gulls to rise up off the Admirals Cove lake and the adjacent nearshore sound waters. They rose up in huge swirls and settled back down after each jet past, over and over until after over an hour they finally departed and headed south across the Puget Sound. While many did not rise high enough to be struck, a significant number did. There was no indication that that ground control or the pilots were aware of the situation, but they may have monitored the rest of the practice week.

Yet the DEIS admits in Section 3.3.1.2 that BASH events are a safety concern because of the potential for major risks to aircraft, to pilots, and/or to civilians in a populated areas:

The presence of resident and migratory birds at NAS Whidbey Island is attributable to both the installation's location within the Pacific Flyway and the occurrence of water-filled ditches, freshwater wetlands, marine shoreline, perch sites, tall brush, and short grass in the vicinity of the runways. All of these conditions attract numerous bird species, and their presence creates a potential BASH risk...most reported bird strikes occur at an elevation of **less than 1,000 feet AGL**....To reduce the potential for BASH, the FAA and the military recommend that land uses that attract birds (e.g., agricultural fields, landfills) be located **at least 10,000 feet** from an airfield.

The above-mentioned Admirals Cove lake is immediately in line with the approach for OLFC Path 32 and it is heavily used by waterfowl, gulls and eagles throughout the year. Jets cross at about 500 feet above the lake (see Figure 8.1 in Comment #8 below) and about 5000 feet from the runway. And immediately surrounding the lake is a suburban population. All of those FAA BASH-related criteria referenced above cannot be met on Path 32.

Adding to the above risks is pilot acuity. The Navy is on record as stating that late night FCLPs are needed because *pilots need to get used to flying when they are tired* since that is what they will experience in actual conditions. That may be, but tiredness also increases accident risks. One obvious way to mitigate civilian risk is to conduct FCLPs where there are no civilians, and another is use of flight simulators, where tiredness-based error involves no loss of aircraft or life (see Section 5 for more on flight simulators).

Mishaps related specifically to the jets at NASWI are tallied in COER Comments Appendix E, and things falling off NASWI Growlers and Prowlers are presented in COER Comments Appendix F. Certainly the Coupeville area is at risk of experiencing the impacts of such incidents.

Nevertheless, somewhat inexplicably, the DEIS concludes on page 4-128 (Public Health and Safety Conclusion) that safety risks are negligible or not a problem:

The Proposed Action would increase the volume of air operations; however, it would not change the installation's ability to comply with military airfield safety procedures for aircraft arrival and departure flight tracks and for operations surrounding the airfield. **Therefore, no significant impact to safety related to flight safety or BASH is expected under any of the alternatives as part of the Proposed Action.**

Without crash risk analysis in the DEIS, that conclusion is without reasoned and analytical support. The following examination prepared by COER supporters finds the risks are not insignificant.

Risk Examination:

The accident risk evaluation must include probability predictions related to the statistics of crashes. In the last 25 years the ratio of F-18 crashes to Prowler crashes is about 13:1 (COER Comment Appendix D). The F-18 is a faster and more powerful airframe and more can go wrong in flight. But not all F-18s are alike; there was a considerable re-design for the F-18E/Fs that the Growlers are a copy of but with electronic equipment. Some may argue that redesign made them more crash safe. Accidents for just these crash records are spotty, but a good estimate is 22 crashes of these F-18s since 2002 of which 10 were midair collisions in training and 12 were a random mix of pilot error and mechanical failures that occurred in the air as well as during takeoffs and landings, often with ejections²². Midair collisions are less likely in FCLP training than in battle simulations, but the other 12 crashes had circumstances that could happen at or around OLFC during FCLPs.

Computing even the primitive statistic of 0.84 crashes/year worldwide of this aircraft type tells us there is not a near-zero probability of a crash at OLFC, given the crash-accentuating factors there. Of course, careful examination of the circumstances of each crash would help refine the probability estimates for OLFC. Yes, the OLFC has only suffered one catastrophic crash, but many circumstances present in the other accidents are even more pronounced in OLFC's conditions and will be vastly amplified following the 6-fold increase in the number of flight ops predicted in the DEIS.

The All-Navy Class-A Mishap Rate over the past 10 years is 1.27 mishaps per 100,000 hours flown. At the flight-op rates projected in the DEIS, this translates to 3-4 "mishaps" over the next 10 years, at least one of which could be a crash disaster.

Regardless of the data input and analytical process, the crash risk probabilities are elevated with increased operations. A sixfold increase in operations could easily create a higher-than-six-fold increase in crash potential by exacerbating interaction of factors like tight scheduling, support

²²[https://en.wikipedia.org/wiki/List_of_accidents_and_incidents_involving_military_aircraft_\(2000-09\)](https://en.wikipedia.org/wiki/List_of_accidents_and_incidents_involving_military_aircraft_(2000-09))

staff fatigue, more crowded airspace, cutting the safety window too closely for weather events, etc.

Conclusions:

(1) The two most dangerous aspects of flying are the approach, landing and takeoff; those three elements encompass nearly all of the OLFC flight path. The risks are significant (a) because of major encroachment problems, (b) because OLFC is up to 29,000 acres short of and the runway about 3000 feet less than standard for Growler FCLPs, (c) because the pilots are mostly students flying the F-18 airframe, which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes exacerbated by the significant shoreline bird population.

(2) Within the undesignated or to-be-designated APZs are 1000s of residential properties, a heavily used County recycle center, an Olympic-sized outdoor swimming pool at Admirals Cove, a new federally funded transit facility with above ground fuel storage tanks, Island County's Rhododendron Park for youth soccer and softball events, the main north/south highway on Whidbey Island, a newly constructed animal shelter and heavily used dog park, and a residence for about 100 homeless teens. Almost all of the surrounding land uses are incompatible with the established 2005 AICUZ guidelines--e.g., no residences (not 1, let alone 1000s) should be situated in an APZ-1.

(3) The associated risks cannot be justified or solved, even at the DEIS no-action level. That is why the Navy must use the DEIS process to identify a viable off-Whidbey FCLP training alternative that meets 21st century needs and standards for Growlers.

Comment 8:**- FAA ELEVATION RULES IGNORED -**

The Problem: Explicit FAA rules address low-level flying over residential areas, which the DEIS touts as being properly followed at OLFC and Ault Field. Actually, some of the FAA rules, as related to FCLPs, have not been properly addressed in the DEIS.

The Explanation: Page 3-41 of the DEIS states that “*Aircraft safety is based on the physical risks associated with aircraft flight. Military aircraft fly in accordance with Federal Aviation Regulations Part 91, General Operating and Flight Rules, which govern such things as operating near other aircraft, right-of-way rules, aircraft speed, and minimum safe altitudes.*” However, the following FAA rule is not addressed in the DEIS:

FAA Rule 91.119 (Minimum safe altitudes: General) states, that “Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes: (b) *Over congested areas.* Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft. (c) *Over other than congested areas.* An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

Growlers are not allowed to actually land at OLFC because they cannot take off due to the runway being too short. Furthermore, with touch and go FCLP practice there is no intent to actually land, which involves bringing the plane to a stop on land, or conversely taking off from a resting position on land. Because FCLPs are touch-downs with no actual landing, it follows that a true take-off cannot occur since the jet never landed.

As shown in Figure 8.1 below, the approach to touchdown begins and descends from 400 feet, which puts it at about 400 to 200 feet over many residences within the “2000 foot radius of the aircraft.” Furthermore, the downwind leg of an FCLP at 600 feet above ground level (AGL) is not a takeoff or a landing approach but is an interim flight between touchdown and approach for another touchdown; nor is the arrival flight at 800 feet AGL a landing approach but is a circle OLFC prior to beginning the first FCLP. So, no part of an FCLP at OLFC complies with the 1000 or 500 foot AGLs stipulated in the above FAA rule. Even if the approach and takeoff were to be accepted as “necessary for takeoff and landing,” and hence excluded, the downwind leg and arrivals are still noncompliant.

DEIS Section 6.1 summarizes how the proposed actions comply with applicable laws and regulations:

In accordance with 40 Code of Federal Regulations section 1502.16(c), analysis of environmental consequences shall include discussion of possible conflicts between the Proposed Action and the objectives of federal, regional, state, and local land use plans, policies, and controls. Table 6-1 identifies the principal federal and state laws and regulations that are applicable to the Proposed Action and describes briefly how compliance with these laws and regulations would be accomplished."

However, compliance with Federal Aviation Regulation Part 91 was somehow overlooked in the DEIS and in Table 6-1. The DEIS must discuss and show how its FCLP activity is compliant with Part 91.

In addition, FCLP activity at OLFC appears to violate navigable airspace laws. As discussed in https://en.wikipedia.org/wiki/Air_rights, "*The 'navigable airspace' in which the public has a right of transit without effecting a landowners property rights has been set at the height of 500 ft in urban or suburban areas, and 300 feet above the surface or tallest structure in rural areas. The exact altitude(s) at which the airspace over private land becomes "public" airspace, or where the upward bounds of national sovereignty extends is often debated, but the Supreme Court rulings and space treaties are clear. A Landowner's domain extends at least up to 385 feet in rural areas. see Causby v US (1946).*"

As noted above, both flight paths (14 and 32) require low-level approaches over rural areas and suburban neighborhoods at altitudes less than 500 feet, in some areas as low as 200-300 feet. The FAA, however, requires no flights below 500 feet over homes or people, as codified by the Supreme Court. The court has ruled that a property owner controls use of the airspace 500 feet above their property and may make any legitimate use of their property that they want, even if it interferes with aircraft overflying the land. This is an FAA rule the Navy claims to honors as explained by this Oak Ridge National Laboratory Report²³:

The military services are committed to safety and to minimizing the collateral noise associated with low-level flight training. The U. S. Air Force, for example, has set

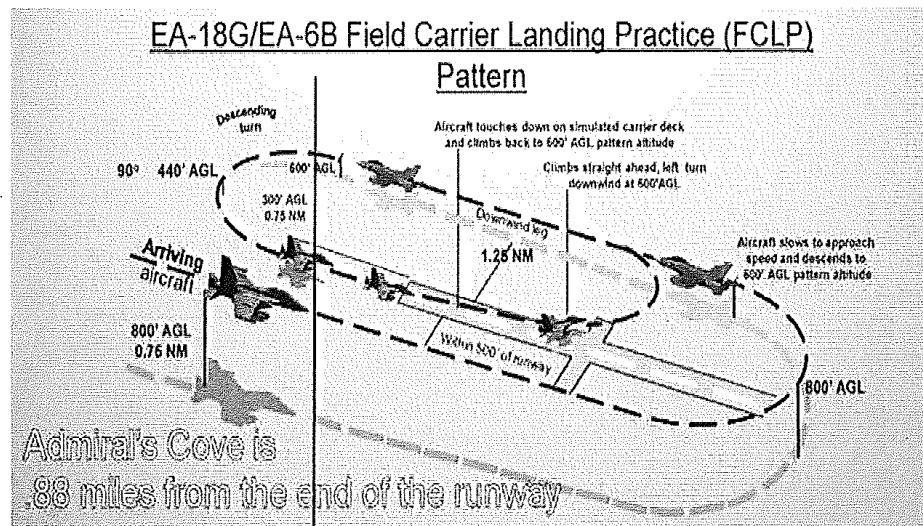
²³ *Ecological Risk Assessment Framework for Low-Altitude Overflights by Fixed-Wing and Rotary-Wing Military Aircraft*. January 2000. Rebecca A. Efroymsen (Oak Ridge National Laboratory), Winifred Hodge Rose and Sarah Nemeth (U. S. Army Construction Engineering Research Laboratory), and Glenn W. Suter II (U. S. Environmental Protection Agency). Research sponsored by the Strategic Environmental Research and Development Program of the U. S. Department of Defense under Interagency Agreement 2107-N218-S1 under contract DE-AC05-00OR22725 with UT-Battelle, LLC. Publication No. 5010, Environmental Sciences Division, ORNL. <https://www.researchgate.net/publication/252522677>

numerous restrictions and tailored its training to reduce noise as much as possible. The DoD in general, in addition to following its own flying rules of low-level altitudes and airspeed, also follows those in Federal Aviation Regulation 91.79 which states that no plane may fly closer than "500 ft [152 m] from any person, vessel, vehicle, or structure." (USAF Fact Sheet 96-17) In addition, because of the greater potential for human annoyance during sleeping hours, low-level flying by military fixed-wing aircraft generally occurs during daylight hours; low-level flying near densely populated areas is prohibited.

On approach to and departure from an OLFC touch-down, Growlers cannot comply with FAA rules and must cross over hundreds of residences, a well-used children's athletic field, dog park, county park trail system, a crowded recycle center, above ground fuel storage tanks, and a facility for 100 homeless teens.

Conclusion: The DEIS failed to consider and explain how it intends to operate at OLFC without violating very important components of federal law dealing with proximity rules to persons, vessels, vehicles, and structures, or conversely, explain how the Navy will appropriately compensate those impacted by takings.

Figure 8.1 – Navy's schematic of Path 14 FCLP at OLFC. The AGL elevations are the about same for Path 32 (Source: <http://admiralscove.org/naswiolf.htm>).



Comment 9:

- DISPROPORTIONATE IMPACTS -

The Problem: The DEIS claims the proposed alternatives will not create disproportionate impacts on children or minorities (i.e., "Environmental Justice"). That claim is neither cogent nor defensible.

The Explanation: The DEIS on page 4-121 correctly explains:

As described in Section 3.3.2.4, **unless there is a place where children congregate within an APZ**, such as a school, there is not a disproportionate safety risk to children. As shown on Figures 4.3-1 and 4.3-2, there are no schools located within the APZs at Ault Field and OLF Coupeville under any of the alternatives or scenarios; therefore, there is no disproportionate environmental health and safety risk to children as a result of possible aircraft mishaps.

Table 6-1 takes that a bit further a bit further, as extracted from that table:

Executive Order 13045, Environmental Health Risks and Safety Risks to Children Navy. The Navy does not anticipate any significant disproportionate health impacts to children caused by aircraft noise, and there no disproportionate environmental health and safety risk to children as a result of possible aircraft mishaps. (Sections 3.3 and 4.3, Public Health and Safety.)

The above conclusion is based on important omissions, which once included, render the conclusion unsupportable. Actually, there are three areas of disproportionate aggregation involving children age 19 and under within the proposed APZ -1:

(1) The Admirals Cove Swimming Pool is open 4 summer months in the year and there is strong interest in covering the pool so it is open year round. The life guards working there are almost always older teens, and the pool is predominately used by teens and younger children, sometimes but not always accompanied by an adult. In addition, the pool has traditionally been used for teaching children swimming lessons, as sponsored by the local Lion's Club.

(2) Rhododendron Park has youth athletic fields for softball and soccer. Both the pool and park usage are greatest in the warmer months of the year, which coincides with the heaviest FCLP use of OLFC because of weather constraints at other times of the year.

(3) Just north of the air strip is a home for up to 100 homeless Whidbey Island teens.

All of these facilities are squarely in the APZ-1. Also ignored, were the low-income itinerant farm laborers, who work immediately under the proposed APZ-2 of Path 32. Similarly, gardeners and construction workers are generally low-income and/or minority laborers working under the APZs proposed for both Paths 14 and 32.

Section 3.3.1.3 of the DEIS states, *“In the 1970s and 1980s, recognizing the need to identify areas of accident potential, the armed services conducted studies of historical aircraft accidents throughout the U.S. The studies showed that most aircraft mishaps occurred on or near the runway, with mishaps diminishing in likelihood with distance.”*

That in mind, within just 2000 to 3000 feet of western boundary of the proposed APZ for Path 32 is an elementary school, a high school, a child day-care facility, the barracks of Fort Casey now used to house large youth groups numbering in the 100s, and another public swimming pool at Fort Casey. All of these facilities are overwhelming places “where children congregate” and are disproportion in number to the overall population age composition. While these facilities are not under but are immediately adjacent to the proposed Path 32 APZ, they are so very close that any of those youth venues could be impacted by a Growler incident (accident). And actually, whether the APZ is designated or not, the fact is that the risk is clear and certain, even at the current no-action level of 6120 operations.

For example, a recent Growler mishap occurred at NASWI in which the cockpit became highly over-pressurized and blew canopy off, critically injuring the three airmen inside. Had something like that happened during an FCLP the schools could easily be impacted by the out of control jet.

In addition to disproportionate safety risks, there are also disproportionate risks on auditory and non-auditory health, because the above facilities for children and the work sites for low-income farm laborers and gardeners are also in the 75-dB DNL contour Path 32. In addition, the adjacent youth sites (schools, daycare, Fort Casey barracks) are in the 65 dB DNL. The DEIS manages to pass over any disproportionate impacts on children by concluding the following (page 4-120):

Based on the limited scientific literature available, there is **no proven positive correlation** between noise-related events and physiological changes in children. Additionally, the aircraft noise associated with the action alternatives is intermittent; therefore, the Navy does not anticipate any significant disproportionate health impacts to children caused by aircraft noise.

That conclusion is based on an unrealistic proof-positive expectation as explained in COER Comment #11 (a).

NOTE: additional analysis by of the impacts of noise COER on auditory and non-auditory health are presented in COER Comment Addendum 2 and in a separate analysis prepared for COER by Dr. James Dahlgren.

Conclusions: Given the disproportionate safety, health, and educational impacts of Growler FCLPs at OLFC on children, low-income laborers and minorities, the DEIS must straightforwardly re-examine its inability to comply with Environmental Justice requirements.

Given the compressed surrounding encroachment, the DEIS must further explain (1) how its desire for convenience rises above the risks of a catastrophic accident involving one or more of these youth facilities, and (2) delineate the actual costs for moving FCLP operations to a safe off-Whidbey location unencumbered by encroachment, and juxtapose those costs with the costs and attendant impacts related to retaining FCLP use of OLFC.

COMMENT 10
- NO ACTION DOES NOT EQUAL NO IMPACT -

The Problem: The DEIS **(a)** provides that the no-action alternative represents the average existing condition, but based that on highly dubious reasoning, **(b)** incorrectly focused on the increased impacts of the action alternatives rather than the total impacts – i.e., the no-action plus the action alternatives, and **(c)** has understated the number of Growlers to be stationed at NASWI.

The Explanation:

(a) The DEIS provides that the no-action alternative represents the average existing condition, but based that on highly dubious reasoning.

The no-action alternative in the DEIS was set at 6100 operations for OLFC, of which 16% are modeled as night (after 10 PM) operations, putatively representing the average existing condition. The problem is, the DEIS does not present a true existing condition, nor does it disclose the criteria used for determining significance (see COER Comment 11.b). That is, the DEIS assumes, with dubious reasoning, that 6100 operations at OLFC somehow inflicts no impacts because the 2012 EA developed a finding of no significant impact (FONSI) for the transition from putatively quieter EA-6B Prowler to the EA-18G Growlers. That FONSI (signed on October 30, 2012, action completed in 2015) somehow was equated to a completed project, and hence the 6100 operations were, by a leap of logic, discounted as having no effect, explained in Section 5.3.1.1:

Three previous federal actions were identified in Table 5-1: the Environmental Assessment for the Transition of Expeditionary EA-6B Prowler Aircraft with EA-18G Growler Aircraft; the P-8A Multi-Mission Aircraft EIS/SEIS; the Northwest Training Range Complex Final EIS/Overseas EIS (OEIS), and the Replacement of the C-9 Aircraft with the C-40 Aircraft. However, these projects are complete and included as part of the existing environment analysis in this EIS. Therefore, they are not retained for further cumulative impacts analysis. (emphasis added)

Obviously 6100 operations do not have a zero impact, and simply stating that those operations are part of the existing environment because there was a FONSI for the transition of the Prowlers to Growlers cannot be justified when the Prowler impacts were never analytically juxtaposed

against a no-FCLP-noise environment. This attempt to dismiss or hide the prior or existing noise and focus on the new noise is not compliant with guidelines in DEIS Section 5.1:

In addition, CEQ and the U.S. Environmental Protection Agency (USEPA) have published guidance addressing implementation of cumulative impact analyses—Guidance on the Consideration of Past Actions in Cumulative Effects Analysis (CEQ, 2005) and Consideration of Cumulative Impacts in USEPA Review of NEPA Documents (USEPA, 1999). CEQ guidance entitled Considering Cumulative Impacts Under NEPA (1997) states that cumulative impact analyses should: “...determine the magnitude and significance of the environmental consequences of the proposed action in the context of the cumulative impacts of other past, present, and future actions...identify significant cumulative impacts [and]...focus on truly meaningful impacts.” (emphasis added)

The 2012 FONSI did not indicate that the Prowlers had no impacts, rather, just that the transition to Growlers created no substantially new impact. Hence, the DEIS avoided addressing “*the cumulative impacts of other past, present, and future actions*” and the need to focus on “*truly meaningful impacts*” (as opposed to ignoring them, as the DEIS has attempted).

Between 1971 and 2008, the Navy used Prowlers for its Airborne Electronic Attack mission and pilot landing practice at OLFC, but the impacts of Prowlers stationed at NASWI were never environmentally vetted. When the Navy introduced the Prowlers at OLFC, it initiated but never completed an EIS and officially withdrew from this process in the Federal Register in 1999. There is also a signed Navy Memorandum of Agreement from that period agreeing to study the Prowler impact on Ebey’s Landing National Historical Reserve and its many historic structures, but it never followed through on its commitments.

Hence, there is no FONSI or other evidence record of any meaningful studies being done by the Navy to prove no significant impact of Prowler FCLPs on the environment, on historic structures, on health, on safety, or on the island’s economics. Hence, the argument that the status-quo no-action baseline is part of the *existing environment* is absurd in practical terms and difficult to convincingly overcome in legal terms. That is, if activity X is an unknown, it is not scientifically justified to conclude that $X = 0$; rather, X is an unknown waiting for an answer.

Conclusion: Obviously, the Prowler FCLPs had a huge impact, irrespective of whether the Growlers amplify that impact or not. Because the 6100 Prowler operations were never vetted, it follows that the 6100 Growler operations were not properly vetted and are not “completed projects” at all, but are incomplete projects that must be retained as a past action for analysis within the DEIS.

(b) The DEIS incorrectly focused on the increased impacts of the action alternatives rather than the total impacts – i.e., the no-action plus the action alternatives.

As per DEIS Section 2.3.1, the no action alternative is to serve as “a reference point” or baseline against which the action alternatives are to be evaluated for the relative amount of change:

The Council on Environmental Quality (CEQ) regulations (40 Code of Federal Regulations 1502.14[d]) require an EIS to evaluate the No Action Alternative. The No Action Alternative provides a benchmark that typically enables decision makers to compare the magnitude of potential environmental effects of the proposed alternatives with conditions in the affected environment... [T]he conditions associated with the No Action Alternative serve as reference points for describing and quantifying the potential impacts associated with the proposed alternatives. (emphasis added)

Increase is the primary parameter used by the DEIS to examine impacts—i.e., how much did this or that increase. As discussed in comment 10 (a) above, the increase should be based on the total impact over the no-FCLP baseline. Here are just a few examples of how the DEIS examined the relative impacts as the increase over the no-action baseline, ignoring the total impact or increase over no-FCLP noise:

The number of incidents of indoor and outdoor speech interference and classroom interference **would increase** slightly. There would also be a **higher probability** of awakening under all scenarios... (section 4.2.3.2)

There would be a **slight increase** in the number of incidents of indoor and outdoor speech interference, and classroom interference... (section 4.2.4.2)

In addition, the population that may be vulnerable to potential hearing loss **would increase** under all alternatives and scenarios and Table 4.2-25 DNL Noise Contour Comparison - **Overall Increase** in the Number of People within the 65 dB DNL Noise Contour.

Conclusion: Because the DEIS incorrectly focused primarily on the relative increase (i.e., the increase of action over no-action alternatives), that focus needs to be changed to one focused on the total impact (i.e., the increase over no/zero FCLP noise). This is further discussed in COER Comment #11.

(c) The DEIS has understated the number of Growlers to be stationed at NASWI. The impacts on air quality have not been presented in a form most people can comprehend.

The Explanation: The DEIS claims to be adding 35 or 36 more Growlers to the 82 already at NASWI, making a total of 118. However, an additional 35 Growlers, putatively to be added by 2018, are not mentioned or considered in the DEIS. Those 70 additional jets bring the total number of Growlers to be stationed on Whidbey Island to 153. But, the Navy has placed an order for 7 more Growlers in 2016, which increases the total to 160. Assuming those figures are correct as the record below shows, the impact calculations in the DEIS would appear to be vastly understated (discussed further in COER Comments Appendix G).

In addition, Growler emission impacts on air quality were presented in a manner was not easy to understand the import and amount. This too is examined further in COER Comments Appendix G.

Conclusion: The DEIS should provide details regarding plans for all the 160 Growlers planned for at NASWI, provide the forthright impact analyses meaningful. Assuming some of those will be spares, the DEIS should also include impact analyses of the maintenance routines of all Growlers, including spares.

Comment 11
- TOTAL IMPACTS: A CHARADE -

The Problem: The DEIS evaluation of impacts (Chapters 4 and 5) **(a)** did not address non-auditory health impacts, which it excused via a scientifically inappropriate dismissal of the noise–health research literature, and **(b)** understated the actual impact significance of the action alternatives.

The Explanation: In DEIS Chapters 4 and 5, the noise comparisons presented are between the no-action vs. action alternatives, the no-action alternative (6100 operations) being touted as the baseline or existing environment. As examined in Comment #10, the actual baseline should be no-FCLP (zero)²⁴ operations, not 6100. Obviously, comparisons of the alternatives to a no-FCLP alternative will result in far greater increases across all the parameters examined.

Just as one example, Table 4.2-11 indicates that at point of interest R007 (Race Rd), the no action and Alt 2 SELs are 114 and 115 dBA, respectively, and hence a +1 dBA increase over the no-action. But if no-FCLP were used as the baseline the increase would be on the order of +50 to 60 dBA or more. That example carries through virtually all comparisons in Chapters 4 and 5.

(a) Did not address non-auditory health impacts, which it excused via a scientifically inappropriate dismissal of the noise–health research literature. In DEIS Appendix A, Wyle addressed some selective literature on impacts of noise on adults (Section A 3.5, pages A170 to 174) and on children (Section A 3.5, pages A175 to 177), but the cumulative impacts of noise on human health (Chapter 5) were never addressed. Perhaps that was because Wyle decided the impacts of noise on human health were inconclusive: “As a result, it is not possible to state that there is sound scientific evidence that aircraft noise is a significant contributor to health disorders.” In separate analyses of the formal peer-reviewed literature COER points out the inadequacies of that conclusion, which basically was based on (1) cherry-picked studies misrepresenting or at odds with the overall body of knowledge, and (2) an unsupportable demand for absolute certainty, which harkens to tactics of the tobacco industry arguments that the absence of conclusive cigarette smoke cause/effect was reason to dismiss action to prevent harms. The following statement from page 4-120 demonstrates this perfectly:

²⁴ Note: COER Comment #1 contends the DEIS reasoning for not including and examining a no-FCLP option as an alternative are weak and contrived, and as a result from credible.

Several studies suggest that aircraft noise can affect the academic performance of school children. Physiological effects in children exposed to aircraft noise and the potential for health effects have been the focus of limited investigation. Two studies that have been conducted, both in Germany, examined potential physiological effects on children from noise. One examined the relationship between stress hormone levels and elevated blood pressure in children residing around the Munich airport. The other study was conducted in diverse geographic regions and evaluated potential physiological changes (e.g., change in heart rate and muscle tension) related to noise. The studies showed that there may be some relationship between noise and these health factors; however, **the researchers noted that further study is needed in order to differentiate the specific cause and effect to understand the relationship** (DNWG, 2013). Based on the limited scientific literature available, **there is no proven positive correlation between noise-related events and physiological changes in children. Additionally, the aircraft noise associated with the action alternatives is intermittent; therefore, the Navy does not anticipate any significant disproportionate health impacts to children caused by aircraft noise.**

Unfortunately, this argument is found throughout the DEIS; here, for example, another from page 4-79:

Per studies noted and evaluated in Section 3.2.3, the data and research are **inconclusive with respect to the linkage between potential nonauditory health effects of aircraft noise exposure.** As outlined within the analysis of DNL contours and supplemental metrics presented within this section, the data show that the Proposed Action would result in both an increase in the number of people exposed to noise as well as those individuals exposed to higher levels of noise. **However, research conducted to date has not made a definitive connection between intermittent military aircraft noise and nonauditory health effects.** The results of most cited studies are inconclusive and cannot identify a causal link between aircraft noise exposure and the various types of nonauditory health effects that were studied.

And yet another from page 4-50 (presumably based on Appendix A review of medical literature by Wyle):

As outlined within the analysis of DNL contours and supplemental metrics presented within this section, the data show that the Proposed Action would result in both an increase in the number of people exposed to noise as well as those individuals exposed to higher levels of noise. However, research conducted to date has not made a **definitive connection between intermittent military aircraft noise and nonauditory health effects.** The results of most cited studies are inconclusive and cannot identify a causal link between aircraft noise exposure and the various type of nonauditory health effects that were studied.

And this from page 4-120:

Research suggests that environments with sustained high background noise can have a variety of effects on children, including effects on learning and cognitive abilities and various noise-related physiological changes. The studies showed that there may be some relationship between noise and these health factors; **however, the researchers noted that further study is needed in order to differentiate between the specific cause and effect to understand their relationship** (DNWG, 2013).

The highlighted claims in the example excerpts above, and many other similar conclusions lack credibility for two reasons. First, none of preparers of the DEIS possess the medical credentials necessary to reach such a baseless claim (see COER Comments Appendix H for a full list). COER's medical expert fully refutes the efficacy of this and similar unsupported conclusions on the auditory and nonauditory impacts of noise at levels produced by Growlers. Second, this is abundantly clear from their apparent lack of understanding about protocols for scientific publications. That is, identification of research limitations or highlighting the needs of additional research does not mean that findings are invalid or should be discarded or discredited.

As Robert Wilbur²⁵ explains, "*An important and ubiquitously applied objective of every scientific research publication is to identify and direct needs for additional research. Research is never complete, but builds on the backs of prior research. Unknowns and caveats always remain, and highlighting those is a critical component of objective scientific reporting. Hence, it is the researcher's responsibility, if not duty, in preparing a research publication to identify caveats and needs for future research.*" Absence of certainty over the nuts-and-bolts of cause and effect is not interpreted in the medical/biological sciences as reason for rejecting or ignoring what is generally accepted as likely or highly likely to be correct. Yet, rejecting such findings due to absence of 100% certainty is exactly what the DEIS has attempted. And in so doing, it has violated its iterative claim to use *the best and most current scientific information available*, which also happens to be a NEPA requirement.

Furthermore, the absence of "proof" does not stop prudent application of the best available information. For example, where solid correlations are found for cures of disease, time does not stop and wait for the cause and effect to be fully sorted out and proven before treatment changes are implemented to save lives. In regard to that requirement, the DEIS seems to be applying it where it is convenient and ignore it or dismiss it when inconvenient. Holding up as valid the now

²⁵ Author of numerous scientific publications and editorial guides, coauthored *Scientific Style and Format*, a 600+ page a cross-disciplinary manual widely used throughout the physical and biological sciences. Presently, part-time freelance science editor for Taylor Francis Group.

discredited Schultz curve leading to the 65-dBA DNL, as discussed in COER Comment #2(b), is another example of how the Navy has been arbitrary and capricious in applying that NEPA-based requisite.

NOTE: additional analysis by of the impacts of noise COER on auditory and non-auditory health are presented in COER Addendum 2 and in a separate analysis prepared for COER by Dr. James Dahlgren.

Conclusion: The DEIS must drop the unsupportable conclusion asserting that noise risks and impacts on non-auditory health are so vague that they can only be ignored. Instead, the DEIS needs to judiciously and objectively analyze and synthesize the overwhelming research findings that clearly indicate the documented risks to human health.

(b) Understated actual impact significance of the action alternatives.

By incorrectly representing the no-action alternative as the baseline, rather the no-FCLP option, the DEIS greatly minimized the degree of increased impacts, making them appear far less pronounced. For example, Table 1-1 in DEIS of Appendix A presents a very useful points of interest (POI) summary of various impact parameters for the nine average-year action alternatives compared with the no-action alternative. Reduced down to the essence, that table can be summarized as below:

- 1) the population living within ≥ 65 dB DNL increases from the no-action alternative by about 1600 to 2200 individuals or by 15% to 23% more;
- 2) the overall DNL will at points of interest (POI) 1 dB at up to 9 POI, 2-3 dB at up to 16 POI, 4-5 dB at up to 6 POI, 6-10 dB at 1 POI, and 10-15 dB at up to 2 POI;
- 3) the number of POI newly exposed to ≥ 65 dB DNL will increase by 2-3.
- 4) the risk of individuals experiencing a Noise induced Permanent Threshold Shift (NIPTS) of at least 5 dB increases by 114% to 408%;
- 5) indoor speech interferences at various residential POI (windows open) will increase by an additional 1-2 events/hour at 6-12 locations and by 3-4 events/hour at 0-3 locations;
- 6) classroom learning interference (in events per hour) at will increase by 1-2 events/hour at 3-4 schools;
- 7) outdoor recreational speech interference (in events per hour) will increase by 1-3 events/hour at 0-6 recreational POIs.

While the above summary shows major increases, the greatest being the closest to the FCLP flight paths, all those increases would have been far greater had the correct no-FCLP option been used as the baseline instead of the no-action alternative. And further consider for the DNL parameters above (#1-3), how much more those values would increase if the correct DNL

threshold of 55 dBA had been used rather than 65 dBA; so there too is a correction to 55 dbA that is necessary to comply with contemporary scientific knowledge.

In addition to that failing, the DEIS also failed to address the “*significance*” of the DNL increases between the no-action and action scenarios. Significance was neither defined nor addressed as a very important component related to understanding noise impacts. Other Federal agencies have specific numeric thresholds of significance for noise. The Federal Highway Administration’s (FHWA’s) noise abatement criteria (23 CFR Part 772) considers a traffic noise impact to occur if predicted peak-hour traffic noise levels “approach” or exceed the FHWA criteria or “substantially exceed” existing levels. Washington State Department of Transportation defines “approach” as within 1 dBA of the FHWA criteria, and “substantial” as an increase greater than 10 dBA resulting in at least 50 dBA Leq. The FAA considers significance in decibels of increased DNL, as follows:

To determine significant noise impact, FAA will use the significance criteria in environmental order 1050.1F. The significance threshold for noise and land use compatibility in FAA Order 1050.1F is that the action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe. <see <https://www.federalregister.gov/articles/2016/03/30>. Scroll down to Federal Aviation Administration.>

This is not a trivial oversight. Based on the above FAA criteria, the impacts in terms of significance (i.e., in +1.5 dB increments) need to not only be compared against the no-action alternative, but also against the no-FCLP option.

The Navy has no significance criteria and instead refers to the President’s Council on Environmental Quality (CEQ) for defining significance. According to CEQ regulations (40 CFR §§ 1500-1508), the determination of a significant impact is a function of context and intensity. (40 CFR 1508.27):

Context: This means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than in the world as a whole. Both short- and long-term effects are relevant.

Intensity: This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

1. Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.
2. The degree to which the proposed action affects public health or safety.
3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.
5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

There can be little doubt that Growler FCLPs inflict significant impacts based on criteria 2–5 and 7 and 8. The criteria are very subjective, but as all of COERs comments and the DEIS impacts stated, the significance threshold is exceeded by the Growler FCLP operations at the no-action level and at far exceeded by the action alternatives.

Conclusion: The DEIS has to be revised to address impacts relative to the true no-FCLP baseline and examine and analyze “*significance*” of the increases at the no-action and action alternatives above that no-FCLP level.

Comment 12 - Weak Analysis of Classroom Interruptions -

The Problem: The DEIS obscures the effects of FCLP jet noise on classroom interruptions.

The Explanation: The DEIS inadequately addresses the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing, which misconstrues impacts by making FCLPs seem less problematic. Based on that average that masks realistic impacts, the DEIS was able to conclude (Section 4.2.4.2), *“There would be a slight increase in the number of incidents of ...classroom interference.”* That conclusion is uninformative.

Averages of all jet noise interruptions across all school-day hours in a year may be useful to compare how a given action may produce a greater or lesser relative change. However, such averaging is not instructive on understanding how disruptive a Growler practice session can be because it masks the actual temporal pattern of overflights and, hence, time between interruptions. The DEIS does acknowledge this shortcoming on page 4-39: *“It is important to note that Table 4.2-5 presents average values, and there may be periods when aircraft are operating more frequently, thereby generating more interfering events, and other periods when they are not operating at all and therefore have no potential for classroom/learning interference.”*

Here is the real impact. The DEIS explains that a typical FCLP lasts 45 minutes with three to five aircraft participating in the training, albeit sessions can piggyback one after the other, such that FCLPs can continue for as long as about 2-4 hours with only brief (5-10 min.) between the end of one session and the beginning of the next. The 2016 JGL report documents February 2, 2016, FCLP activity on Path 32. It documents that Growler FCLPs began a few minutes before noon and ended shortly after 2:15 PM. Two temporally discrete sessions were recorded, with three jets each performing 14 FCLP flyovers in the first session and three jets each performing 11 FCLP flyovers in the second session. The report further explains:

Data from Position 1 was recorded from the first session of 42 flyovers, and the second session was recorded at Position 6 (half on the deck and half about 10 feet away but inside the house). The measurements at Position 4 (the baseball field at Rhododendron Park) included both the first and second sessions. In each session the number of jets operating increased quickly from the first jet's arrival circle, to all three and at the end of the session trailing off to the last single jet's circle of the racetrack and final departure. With three jets flying, the overheads were approximately 40 to 50 seconds apart...

So, in one FCLP session of three jets there may be an interruption every 45 seconds, each interruption lasting up to about 10 seconds. That would amount to 67 interruptions in a given 50-minute class or about 670 seconds or 11 minutes of noise impact on teaching, or 22% of 50-minute class. And that was with three jets flying, not four or five.

But even that statistic is a bit misleading, alone, because interruptions of such close frequency complicate teaching and thwart student concentration by breaking focus of teacher and student. Such stop-and-go teaching disrupts educational flow and frustrates a smooth continuum of focus and concentration. Students also may hear the teacher incorrectly, impacting comprehension. In addition, the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior."

To further assess FCLP impacts in the classroom, session frequency is critical. COER-member records (see Table 12.1 below) of FCLP activity at OLFC indicate there were about 17 sessions using Path 32 in 2016 during school days (Monday-Friday, excluding June – August) and school hours (8:00 AM to 4:00 PM). That activity would approximate the no-action alternative of 6100 operations, so for 25,000 operations (4× as many) there would be about 68 sessions, or for 35,000 operations (5.7×) there would be about 98 sessions. Each session basically impacts one class at Coupeville's high/middle school and adjacent the elementary school, which is expanded across all classrooms in those facilities.

Even at 17 classroom hours being degraded by FCLPs, let alone 68 to 98, it is clear that FCLP operations waste our educational resources and diminish the potential benefits to students.

So, once again, the Navy has adopted an index that obfuscates real impacts and disguises how Growler FCLP operations actually malign education of our school children and squander our limited educational tax dollars. This amounts to one of those silent, unspoken costs of FCLPs. The impacts of Growler noise on children is further examined in COER Addendum 2.

Conclusion: The DEIS needs to examine the impacts of FCLP operations on classroom teaching and learning as a result of the time between interruptions when FCLP operations are ongoing, not dilute the impacts with periods when they are not ongoing. In addition it needs to examine the length of time and how frequent FCLP operations would be during school days in the year. Additionally, the Navy should have taken in-class noise recordings to document the magnitude of noise interruptions on education.

Table 12.1 -- Tracking of OLF operations, 2016

Date	C or p# t	Appx. Times ²	Estimated ³		Notes
			# of Jets	# Bounces	
Jan 05 tu	-	Not sure when	?	~30	Not sure of
Jan 06 wd	x		-	-	unsure
Jan 08 fr	x		-	-	unsure
Total bounces for Jan: ~ 30			Run total for 2016: ~ 30		
Feb 02 tu	-	1200-1245 = ¼ h 1335-1410 = ¾ h	3 3	75	Sunny, no wind
Feb 03 wd	x	Eve	-	-	15 knot SE wind
Feb 05 fr	x	Aft	-	-	20-30 knot SE Wind
Feb 08 mo	32	~1530 to 2000 w/ short breaks = 4.5 h	1-4	150	Calm, mild
Feb 09 tu	32	~1700 to 1900	1-3	40	Calm
Feb 10 wd	x	Eve—Late N	-	-	Rain, varied wind/cloud
Feb 11 th	x	Aft	-	-	"Tailwind" said Navy but was none. So?
Feb 12 fr	x	Morn-Early Aft	-	-	Who knows?
Feb 16 tu	32	1600-1800	1-3	100	Fair/mild
Feb 17 wd	32	1300-1500	1-3	100	No wind/mild
Total bounces for Feb: 465			Run total for 2016: ~ 495		
Mar 14 mn	x	Eve—Late N		?	weather
Mar 15 tu	14	1615 - 1830	1-3	100	
Mar 16 wd	?	Eve—Late N			
Mar 17 th	32	1345-1630 /2000-2145	1-3	225	
Mar 18 fr	14	1330-1630	1-3	100	
Mar 21 mn	x	L Eve-N			wind
Mar 22 tu	x	Noon-Aft & L Eve-N			Not sure ??
Mar 23 wd	x	L Morn- L Aft & Eve-N			Big wind

Mar 24 th	32	1345-1545	1-3		
Mar 25 fr	x	All aft			??
Mar 30 wd	32	1410-1630	1-3	100	Sun/0-3 kn
Mar 31 th	32	1400-1500	1-3	50	
Total bounces for Mar: 575			Run total for 2016: ~ 1070		
Total bounces for Apr: 0			Run total for 2016: ~ 1070		
May 4 wd	32	1430-1730	1-3	100	
May 5 th	32	1425-1625	1-3	100	NW wind
May 17 tu	32	2100-2330	1-3	100	Night, mild
May 18 th	32	1400-1700	1-3	150	Cloudy/1-2
Total bounces for May: 450			Run total for 2016: ~1520		
Jun 21 tu	32	2200-0030	1-3	100	
Jun 22 wd	32	1630-0030	1-3	200	
Jun 23 th	x	As yesterday's sched.			Rain event
Jun 30 th	32	1615-1930	1-3	150	Sun, mild
Total bounces for June: 450			Run total for 2016: ~1970		
Jul 7 th	14	1530-1730	1-3	100	SE at 5-8 kn
Jul 11 mn	32	1600-1630/1900-1930	1-3	60	SW, ~5-8 kn
Jul 12 tu	32	1830-1900	1-3	30	SW, ~10 kn
Jul 14 th	32	1600-1630/1900-1930	1-3	60	SW, ~5-8 kn
Jul 15 fr	x	afternoon			
Total bounces for July: 250			Run total for 2016: ~2220		
Aug 11 wd	32	1500-1715	1-3	100	SW ~5-8 kn
Aug 12 th	32	1500-1715	1-3	100	SW ~5 kn
Aug 17	32	1630-1845	1-4	200	
Aug 22 mn	32	1615-1830	1-4	150	
Aug 23 tu	32	1615-1830, 2115-2300	1-5	350	Changed from 24 th
Aug 25 th	32	1615-1815	1-4	150	

Aug 31 wd	x	Late night			Why????
Total bounces for August: 1050			Run total for 2016: ~3270		
Nov 4 fr	14	Late morn/early PM	1-3	?	

¹C = cancelled (not flown) and notes address why the cancellation occurred, or Path number (note did not start to record this until March as did not think they could use Path 14), but flew twice (more?) in March.

²Morn = morning; Aft = afternoon; Eve = evening; N = night

³A jet takes 2 min 15 sec (or 2.25 min or 135 sec) to complete the racetrack loop. A session lasts about 35 min on average with 3 jets flying, a bit less with 2 jets (say 30 min), a bit more with 4 jets (say 40 min). So in 30 min 1 jet should do about 13 overheads or bounces. So per hour with 1 up to 3 back down to 1 jet flying I will put at an avg of 2.5 jets per 30-min avg. session or 2.5 jets (12 bounces/jet) ~ 30 bounces per ½ hour or about 60 bounces per hour. But to be conservative made it about 50/hour.

Comment 13
- PFCs and EMR Not Considered -

The Problem: Perfluorinated compounds (PFCs) are environmentally persistent chemicals associated with fire retardant aqueous film forming foam (AFFF) that have been detected at unsafe levels in drinking water around Ault Field and OLFC. The source is reasonably attributed to foam use and/or leaks at those two sites. As contaminants linked to a wide variety of life-threatening illnesses and health issues, this issue is a huge environmental issue for those areas, but the DEIS has opted not to address this, nor has it addressed electromagnetic radiation (EMR) emitted for electric warfare training at OLFC.

The Explanation: The only mention of PFCs in the DEIS is on page 3-190 and 191, which basically argues there is not enough scientific information to determine that it is a real health problem, albeit the USEPA has set 70 ng/L (70 parts/trillion) as the threshold for a health advisory and a number of states and other countries have set thresholds at about half that level. The DEIS acknowledges that it is investigating AFFF use at Ault Field and OLFC:

The Navy is identifying for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF...The Navy is conducting a review of potential historic use of legacy AFFF and release of PFCs at Ault Field and OLF Coupeville to identify possible groundwater impacts. Although there are no specific records that indicate OLF Coupeville used legacy AFFF, it is likely that emergency response equipment was tested at the site; therefore, to address the potential for public exposure to PFCs in groundwater, the Navy is including OLF Coupeville in its investigation.

First, the Navy information presented in recent public meetings on the PFC problems, has not convincingly indicated that it is actually going to remove and destroy all AFFFs containing PFCs. Nevertheless, the DEIS goes on to oddly conclude that *"This investigation is not part of the Proposed Action for this EIS."* That conclusion, while very convenient, is noncompliant with the need to address the *"the cumulative impacts of other past, present, and future actions"* and the need to focus on *"truly meaningful impacts"* (see DEIS section 5.1), as opposed to ignoring them. The problems related to PFCs are fully examined in COER Comments Addendum 3.

Electromagnetic radiation (EMR) emitted for electric warfare training at OLFC and on the Olympic Peninsula is another potentially serious health and wildlife impact not even mentioned in the DEIS. The problems related to EMR are fully examined in COER Comments Addendum 4.

Conclusion: The DEIS has to be revised to address impacts related to both PFCs

Comment 14
- AICUZ Ignored -

The Problem: The DEIS does not address how the current OLFC encroachment problems can be rectified to comply with the 2005 AICUZ land-use guidelines, given that Island County has ignored the AICUZ land-use directives for OLFC.

The Explanation: As explained on DEiS page 4-113 the Navys AICUZ program is intended to guide land-use planning:

The Navy has an active AICUZ program that informs the public about its aircraft noise environment and recommends specific actions for the local jurisdictions with planning and zoning authority that can enhance the health, safety, and welfare of those living near Ault Field and OLF Coupeville (see Section 3.5.2.2). The current version of the AICUZ plan for NAS Whidbey Island was published in 2005. NAS Whidbey Island **has historically worked with elected officials from surrounding communities to best minimize impacts** where practicable, including not flying at the OLF on weekends and minimizing flight activity during major school testing dates and major community events. The Navy will continue to minimize impacts as much as practicable. NAS Whidbey Island's Commanding Officer takes public concerns seriously and has processes in place that allow members of the public to comment about and seek answers to questions about operations at the base, and ensure those comments are reviewed by appropriate members in his command.

First, in regard to the, *"Commanding Officer takes public concerns seriously and has processes in place that allow members of the public to comment about and seek answers to questions about operations at the base, and ensure those comments are reviewed by appropriate members in his command,"* that statement that is highly disingenuous. COER has asked formally and iteratively to meet with past and present base commanders, but has never been granted such. The last written request to Commander Moore was not even answered other than mockingly in a Whidbey News Times article. It is truly sad to see that grand words, as nobly expressed by the AICUZ, are treated with such cavalier dismissal. It is an insult to our democracy, and the Navy and all the military must be held accountable for such meaningless, empty rhetoric.

Second, the Navy may have made some attempts to influence county officials and planners to comply with the AICUZ stipulation that *no residences* should be constructed in a Noise Zone 2 (65–75 dBA DNL) or Noise Zone 2 3 (>75 dBA DNL), but pragmatically 2005 was too late. That is, Coupeville, the second oldest town in Washington State and product of the Donation Land Claim Act of 1850, long preceded the 1940s when the runway was constructed as a WWII emergency landing strip. Several decades of surrounding development ensued before the relic runway was adopted for Navy FCLP use in the late 1960s. Even Admirals Cove, a community of

over 600 properties lying directly under the FCLP approach, was planned and initiated in the mid-1960s, at which time public records show the Navy was intending to release OLFC to Island County. It was even offered to the developers of Admirals Cove, but they declined, not realizing that inaction by the County would fail to obtain OLFC for public use. So, when Admirals Cove was developed, the Navy's plans for the outlying field were conversion to nonmilitary use, and even after OLFC was reactivated in 1967, the Navy's use was supposed to be part-time, along with civilian use. Thereafter, the Navy's use of OLFC evolved and morphed in episodic stages along with continued development of Admirals Cove and other property interests surrounding OLFC.

So, by the time the 2005 AICUZ was enacted, serious encroachment had already happened. Nevertheless, instead of adopting land-use restrictions, Island County opted to ignore the AICUZ, and the Navy did little to alter the County's absence of leadership, making it complicit in that reprehensible failure to honor.

The DEIS action alternatives will increase noise impacts and could sponsor Accident Potential Zone (APZ) designations. Nevertheless and undeterred, the County has continued to ignore the AICUZ. Building permits in High Impact Areas (i.e., Noise Zone 2 and 3 areas and in the proposed APZ-1) continue to be issued even today with no attempt or interest to suppress or curtail housing or other non-compatible development. Since 2013 the County has permitted in those High Impact Areas around OLFC (see Table 6-2 in the 2005 AICUZ), the development of a transit facility with above ground fuel storage tanks, a facility for 100 homeless teens (Ryan's House), and numerous new homes in Admirals Cove development, among others. And the noise impacts under the action alternatives are going up "significantly" from those described in the AICUZ, as the DEIS explains in Section 5.4.2.3:

The Proposed Action and alternatives would have a significant impact on the noise environment as it relates to aircraft operations at Ault Field and OLF Coupeville. There would be an increase in population within the 65 decibel (dB) DNL noise contour under all alternatives and scenarios. More specifically and depending on the scenario, Alternative 1 would result in an increase of up to 22.8 percent, Alternative 2 would result in an increase of up to 20.8 percent, and Alternative 3 would result in an increase of up to 20.8 percent of the total population surrounding the two airfields.

Conclusion: Whether due to Island County's willful intent to ignore the Navy's AICUZ program or due to lack of genuine assertiveness by the Navy, the laze faire attitude towards the AICUZ aptly demonstrates its meaningless ineffectiveness and the related land-use provisions in the DEIS. This clear and certain exacerbation of the wide-ranging and un-mitigatable land-use impacts tied to FCLP operations, demands the Navy find an alternative environmentally suited off-Whidbey training location for FCLP operations or void and shelve its meaningless, ignored 2005 AICUZ.

Wrap-Up - DEIS Full Revision Is Necessary -

The Problems in Review: In regard to Growler FCLP impacts **(a)** the DEIS is so poorly prepared and non-compliant with NEPA and CEQ that a revised draft is absolutely necessary, and **(b)** the Navy's position that FCLPs can only be conducted at Ault Field and OLFC without jeopardizing National Security is not believably supported by the DEIS.

The Explanation:

(a) DEIS is so poorly prepared and non-compliant with NEPA and CEQ that a revised draft is absolutely necessary.

The DEIS is noncompliant in these critically important areas, among others:

- fails to meet NEPA standards by not seriously evaluating off-Whidbey training sites for FCLPs,
- provides no cost-benefit analysis for on- versus off-Whidbey FCLP sites,
- with up to 18 action alternatives it is much too long and tediously complex,
- relies on a scientifically invalidated DNL criterion for noise impact evaluations,
- dismisses COER on-site noise studies with no explanation or validated reason,
- ignores or inappropriately dismisses very relevant medical research on noise impacts,
- misrepresents or does not adequately analyze recreational and classroom impacts and uses metrics for Ebey's Landing National Historic Reserve that camouflage actual visitor impacts and omits the impacts of low frequency noise on historic structures (see COER Addendum 5).
- fails to mention criteria the Navy uses to protect its personnel from noise damages to health,
- obfuscates noise impacts on OLFC Path 32 by using an extreme exaggeration for usage that the record indicates cannot be achieved,
- deceptively presents the no-action alternative as the baseline for the existing condition,
- does not address how the historical record on noncompliance with the 2005 AICUZ land-use stipulations will be corrected under the various action alternatives, and
- inappropriately dismisses its drinking water contamination of wells around NASWI and OLFC as not relevant to the EIS and ignores the impact of electromagnetic radiation.

As further summarized in the Overview Table (page 3 of this commentary) on the deficiencies and failings of the DEIS, it is fully apparent that the DEIS is inadequate in so many ways that it must be totally redone in order to comply with The Council on Environmental Quality (CEQ) Regulation 1502.9 (a), which states, "The draft statement must fulfill and satisfy to the fullest

extent possible the requirements established for final statements in section 102(2)(C) of the Act. If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

<https://www.law.cornell.edu/cfr/text/40/part-1502>>

(b) The Navy’s position that FCLPs can only be conducted at Ault Field and OLFC without jeopardizing National Security is not believably supported by the DEIS.

The Navy’s reasons for not relocating Growler FCLP operations, as explained Chapter 2 of the DEIS, are largely contrived and disingenuous, so much so that they appear to be manufactured with an intent to produce a pre-decided result rather than an unbiased, objectively arrived at result. That desired result appears to be based on a preference rooted in intransigence and a determined intent to avoid upsetting the Navy applecart with off-Whidbey Island complexities. This mocks and degrades the NEPA process.

In the introductory Overview for the comments above, COER highlighted the Ninth Circuit’s statement that, “when a district court balances the hardships of the public interest against a private interest, the public interest should receive greater weight” <*F.T.C. v. World Wide Factors, Ltd.*, 882 F.2d 344, 347 (9th Cir. 1989)>. The experience from the Navy’s failed attempt to place an outlying field in eastern North Carolina opposes the supposition that national defense gives the military carte blanche rights, as described by Keneth Zagacki (N.C. State):

This paper investigates a controversy between the U.S. Navy and rural North Carolinians in which Navy officials tried to procure local property for a Navy training facility or outlying landing field (“OLF”). Analysis suggests that locals, who defined themselves as patriotic, common sense agents, and the scene as heritage, **built a more credible connection to a patriotic American ethos than did the rhetoric of the Navy, which defined the OLF debate primarily as part of the war on terrorism.** The locals’ ultimate success reveals the rhetorical possibilities and limitations of war on terrorism and local heritage arguments, which both constrain local advocates and widen their access to oppositional voices.

<http://www.tandfonline.com/doi/abs/10.1080/10417940802418775?queryID=%24%7BresultBean.queryID%7D>

Furthermore, COER submits that the Navy’s weakly presented DEIS arguments to dismiss off-Whidbey FCLP venues are largely based on cost and convenience, neither of which create, even closely, a national defense threat, let alone one that trumps the tremendous impacts COER has spoken to above, and as summarized below:

- **Monetary losses** related to property-value depression (APZs) and suppression (buyer avoidance); local taxes to support Navy use of public facilities, services, and infrastructure; costs of hearing loss; medical costs related to noise-induced illnesses; wasted dollars from classroom noise disturbance; tourism losses; etc., and as documented in the Michael Shuman economic study.²⁶
- **Health impacts**, both auditory (as admitted to in the DEIS) and non-auditory health impacts (DEIS unsupportably dismissed).
- **Diminution of visitor experience** to local, state, and national parks and forests, most significantly Deception Pass State Park, Olympic National Park, and Ebey's Landing National Historic Reserve.
- **Physical impacts** to historical structures in Ebey's Landing National Historic Reserve, which the DEIS side-stepped by not examining low-frequency noise impacts, which exerts a far greater force, and is a category of noise the Growler is named after.
- **Crash/incident risks** to civilian populations, to two Coupeville schools, and to other youth facilities under or immediately adjacent to existing and proposed APZs.
- **Fire retardant jet-foam use likelihood** that has already contaminated drinking water for Coupeville and Oak Harbor area residents.
- **Destruction of livability**, as related to all of the above, not only on Whidbey Island but on adjacent San Juan Islands, Port Townsend and the Olympic Peninsula.

Finally, the DEIS presented a wide variety of statistics on things such as speech interruptions, numbers of hearing losses, populations and acreages in toxic noise zones, classroom interruptions, etc. All are important but they do not really translate into readily comprehended *impacts on life*. Here are some of those easily personalized impacts that the DEIS omitted about FCLP operations:

- Nothing about the mother and daughter on bikes, caught by FCLPs who every 30 seconds or so were forced to stop, dismount, to hold their hands over their ears, and then ride forward for 20 seconds just to do it all over again and again.
- Nothing about the young Admirals Cove family, typical of so many, who had to uproot from under the jet path to protect their two young children and unborn child (they tell their story at <http://citizensofebeysreserve.com/Index.html> scroll down to "When Your House is No Longer Safe").
- Nothing about the kids and parents who unknowingly expose their children at the Rhododendron Ballpark to toxic Growler noise with so many potential hearing ramifications (see: <https://www.youtube.com/watch?v=nwxYpCa09-E&sns=em>).
- Nothing about the visitors and their children terrorized late at night by Growlers suddenly crossing their campsite at Fort Casey or Deception Pass, or their premature departure never to return.

²⁶ Shuman, M. H., 2017. Invisible Costs: The \$122 Million Price Tag of Naval Air Station Whidbey Island. Available at <http://citizensofebeysreserve.com/LinksAndFiles.html>.

- Nothing about the number of times a diner party or an outdoor family barbeque gathering had to be cut short due to painful noise and inability to converse due to jet noise and nothing about the family that cannot talk with each other over diner.
- Nothing about the inability for those relying on but unable to conduct business by phone because they cannot hear what is being said. And nothing about the owner of an historic home converted to a beautiful B&B who had to close the business due to jet noise disruption, or the owners of vacation rentals who have to refund rentals when the jets are flying.
- Nothing about the young man who had to quit his job at the recycle center adjacent to the FCLP path, and also had to move his nearby family as well. He tells his story at <http://citizensofeybysreserve.com/LinksAndFiles.html> (scroll down to “Videos of the Jets Flying Low and Loud Over Residential Areas: #1 - #2 - #3 - #4 - #5” and watch all five videos)
- Nothing about the young nurse from South Carolina who unknowingly rented a house under the jet path and after 3 months had to uproot and move again, saying, “I wouldn’t live here if rent was free.”
- Nothing about 100 homeless teens living at Ryan’s House, who have to try to study with hundreds of 120-dBA overflights during school nights, and sadly stuck there as allowed by Navy-embedded Island County officials unconcerned about the noise levels or the home being directly in harm’s way of a crash.

These and thousands of similar anecdotes really tell the untold story about the impacts of FCLP operations at OLFC, the one the political leaders want to keep swept under the carpet, and the story the DEIS statistics do not dare to reveal.

Finally and foremost, back to public versus private interests, these impacts affect such a widespread swath of individuals, communities, and entities that the interests at stake cannot be characterized as *private* or *parochial*. As such, the question is whether the affected public interests are so severely impacted that the greater public good can only be achieved by accepting the reality that the attendant conflicts are insurmountable, by biting the bullet, and by making the decision to relocate FCLPs to a remote and environmentally suited location.

Post Note: The highly respected and Nobel Prize winning organization, Washington Physicians for Social Responsibility (WPSR), has endorsed COER's efforts to close OLFC. WPSR discussed COER's efforts to move the Growlers away from populous Whidbey Island and surroundings at a previous board meeting recently. After carefully considering all of the evidence, their Board expressed grave concerns over the likely adverse health impact and subsequently voted to endorse COER's mission to close OLFC and move the Growler FCLP operations to a far less populous location.

– Appendix A –
 (Extension of Comment 3)
Paul Schomer's Methods

For hearing conservation a noise dose is established in general for an 8 hour workday or a 24 hour day. The navy criteria and presentation is for an 8 hour day. It is for the total dose during the 8 hour time period and it is set to 85 dB. This means that the dose is equal to what can be thought of as a constant 85 dB for 8 hours, or 480 minutes, or 28800 seconds. As a sound exposure this quantity is given by:

The square of the pressure corresponding to 85 dB, which is $10^{(85/10)}$ multiplied by the time in seconds. So as an energy we have $10^{(85/10)} * 28800$. If the sound level was 91 dB instead of 85, it would be 6 dB higher. So as an energy we would have a sound level of $10^{(91/10)}$, which can be written as $10^{(85/10)} * 4$, where $4 = 2^2 = 10^{((2/10)*2)}$. In terms of the Navy dose, the dose would be full for the day if someone was subjected to 91 dB for two hours, one fourth of their 8-hour day.

The calculations I did for you were for the 8-hour dose but it all occurred during the single flying period of 1 to 2 hours. It is computed by listing the number of seconds that exceed each of the following 3 dB increments but do not reach the level of the next increment. The 3 dB increments are 85, 88, 91, 94, 97, 100, and so on. So what I note for each increment is the number of seconds exceeding the increment by being below the increments + 3dB. For example, in the tables in the attached spreadsheet this Navy dose is calculated for four outdoor source-positions and two flying periods.

Consider position 1 for the first flying period. 85 dBA is exceeded for 448 seconds, and of these 88 dBA is exceeded for 381. So there are $(448-381=67)$ seconds that exceed 85 dB but are less than 88 dB. 67 seconds is 0.2 percent of the daily dose. Similarly, there are 21 seconds that exceed 109 dB and 8 seconds that exceed 112 dB. So there are 13 seconds that exceed 109 dB but are less than 112 dB. 13 seconds is 11 percent of the full daily dose of 112.5 seconds at 109 dB.

Adding all the percentages of daily dose in each increment yields the percent that the daily dose is exceeded during a single flying period. If the day has two flying periods then the total daily dose is 2 times the dose received during a single flying period. This is all shown in the table.

In two flying periods, position 1 will accrue a dose equal to 115% of the Navy's permitted 8-hour dose and position 4 will accrue a dose that is 92% of the Navy's permitted 8-hour dose.

The explanation above is based in the following:

§1926.52 Occupational noise exposure.

(a) Protection against the effects of noise exposure shall be provided when the sound levels exceed those shown in Table A.1 of this section when measured on the A-scale of a standard sound level meter at slow response.

(b) When employees are subjected to sound levels exceeding those listed in Table D-2 of this section, feasible administrative or engineering controls shall be utilized. If such controls fail to reduce sound levels within the levels of the table, personal protective equipment as required in subpart E, shall be provided and used to reduce sound levels within the levels of the table.

(c) If the variations in noise level involve maxima at intervals of 1 second or less, it is to be considered continuous.

(d)(1) In all cases where the sound levels exceed the values shown herein, a continuing, effective hearing conservation program shall be administered.

Table A.1—Permissible Noise Exposures

Duration per day	Sound level dBA slow response
8 hr.	90
6 hr.	92
4 hr.	95
3 hr.	97
2 hr.	100
1.5 hr.	102
1 hr.	105
30 min	110
≥15 min	115

(2)(i) When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. Exposure to different levels for various periods of time shall be computed according to the formula set forth in paragraph (d)(2)(ii) of this

section.

$$(ii) F_e = (T_1/L_1) + (T_2/L_2) + \dots + (T_n/L_n)$$

Where:

F_e = The equivalent noise exposure factor.

T = The period of noise exposure at any essentially constant level.

L = The duration of the permissible noise exposure at the constant level (from Table D-2).

If the value of F_e exceeds unity (1) the exposure exceeds permissible levels.

(iii) A sample computation showing an application of the formula in paragraph (d)(2)(ii) of this section is as follows. An employee is exposed at these levels for these periods:

110 dbA $\frac{1}{4}$ hour.

100 dbA $\frac{1}{2}$ hour.

90 dbA $1\frac{1}{2}$ hours.

$$F_e = (\frac{1}{4} / \frac{1}{2}) + (\frac{1}{2} / 2) + (1\frac{1}{2} / 8)$$

$$F_e = 0.500 + 0.25 + 0.188$$

$$F_e = 0.938$$

Since the value of F_e does not exceed unity, the exposure is within permissible limits.

(e) Exposure to impulsive or impact noise should not exceed 140 dB peak sound pressure level. <NOTE: Lilly's metrics show it close 130-135 dB, but not over.>

- APPENDIX B -
(Extension of Comment 3)
DOD NOISE LIMITS CRITERIA

The following is from: Department of Defense, Design Criteria Standard, Noise Limits. MIL-STD-1474D 12 February 1997 SUPERSEDING . Available in:
AMSC <http://www.soundmetersource.com/uploads/3/0/9/4/3094346/mil-std-1474d.pdf>
(See Section 6.4)

4.2 Hearing damage criteria.

4.2.1 Time weighted average sound level. The 8-hour time weighted average equivalent sound level, shall not exceed 85 dB for any flight member based on aircraft usage and mission profiles given in (a). The total daily exposure selected in Table 6-I shall be based on flight members flying (b) missions in any given day. Hearing protection devices shall be worn as follows (c) (see Appendix B). This is also equivalent to summing the fractions of the actual time of exposure to the allowable time of exposure. If this value exceeds one, the combined exposure shall then be considered to exceed the standard. This is expressed mathematically as:

$$\frac{c_1}{T_1} + \frac{c_2}{T_2} + \frac{c_3}{T_3} + \dots + \frac{c_n}{T_n} > 1.0$$

where the C values are the times of exposure to a given level and the T values are the times allowed at those levels by Table 6-I. All noise exposures above the threshold of 80 dBA shall be used in the above equation.

Table 6-1. Noise limits for unprotected exposures

Time (min) ¹	Max Sound (dBA) ²	Time (min) ¹	Max Sound (dBA) ²	Time (min) ¹	Max Sound (dBA) ²
No Limit	<80	95	92	4.7	105
1440	80	76	93	3.8	106
1210	81	60	94	3.0	107
960	82	48	95	2.4	108
762	83	38	96	1.9	109
605	84	30	97	1.5	110
480	85	24	98	1.2	111
381	86	19	99	0.9	112
302	87	15	100	0.7	113
240	88	12	101	0.6	114
190	89	9.5	102	0.5	115
151	90	7.5	103	>115 forbidden	
120	91	6.0	104		

- Appendix C -
 (Extension of Comment 3)
Impacts on the Developing Fetus

Literature on the impacts of noise on the developing fetus was extensively examined by the Navy:²⁷

Fetal Sound Exposure Environmental or workplace sound is transmitted to the fetus through body tissues and uterine fluids, and probably within the fetus by bone conduction... Low frequency noise poses the greatest risk since it penetrates to the fetal cochlea more effectively than high frequencies. Most studies suggest attenuation at the cochlea of about 10 to 20 dB for frequencies less than 250 Hz, and over 40 dB at 2000 Hz. However, one study reported sound enhancement at 125 Hz.

The fetal cochlea first demonstrates consistent auditory responsiveness in the 20th week of gestation. There have been no indications of behavioral auditory responses before 19 weeks gestation. Fetal effects of sound may vary with gestational age. Mammalian studies indicate increased susceptibility to damage from sound during the final functional and structural stages of development in young animal cochleas. While there are no data for humans, children in utero could theoretically suffer hearing loss at lower sound levels and after a shorter duration of sound exposure than mature adults. The current auditory risk criteria were formulated for non-pregnant adults.

According to the American Academy of Pediatrics, studies suggest exposure to excessive noise during pregnancy may result in high-frequency hearing loss in newborns, and may be associated with prematurity and intrauterine growth retardation. Studies linking maternal sound exposure during pregnancy to increased incidence of hearing loss in neonates and young children are inconclusive due to inability to control all variables. After the development of the fetal ear (mid-pregnancy), the fetus is able to perceive, and even respond to, external sounds. Sound attenuation from external air to within the uterus has been demonstrated. Exact levels of attenuation have differed (and one study even suggested low frequency sound level augmentation within the uterus), but high frequency sound levels (those thought to pose the most significant hazard to adult hearing) are consistently diminished more than low frequency. Concern remains, however, as to whether maternal exposure to high sound levels, even of low frequencies, may be harmful to the hearing of the fetus, because the fetus cannot be protected (for example, by earplugs) from the direct effects of such sounds. *A significantly increased rate of loss of hearing at 4000 Hz has been noted in children whose mothers were exposed to high sound levels with both low and high (rather than only high) frequency components. (However, other risk factors may have been confounders.) The same study identified a three-fold increase in childhood high-frequency hearing loss among children whose mothers were exposed to occupational sound levels of 85 to 95 dB compared to those*

²⁷ REPRODUCTIVE AND DEVELOPMENTAL HAZARDS: A GUIDE FOR OCCUPATIONAL HEALTH PROFESSIONALS. 2010. NAVY AND MARINE CORPS PUBLIC HEALTH CENTER OCCUPATIONAL AND ENVIRONMENTAL MEDICINE (OEM) DIRECTORATE 620. Navy and Marine Corps Public Health Center Technical Manual NMCPHC-TM-OEM 6260.01C. <http://www.med.navy.mil/sites/nmcphc/Documents/policy-and-instruction/oem-reproductive-and-developmental-hazards-a-guide-for-occupational-health-professionals.pdf>

whose mothers had lower occupational sound level exposures during pregnancy. The authors recommended setting a temporary 85 dBA 8 hour sound limit for pregnant women until further research verifies the safety of higher sound level exposures. Some authors feel that any sustained exposure of the developing auditory system to high sound levels represents an increase in the risk of noise-induced hearing loss, although this has not been proven in humans. At least one Navy medical officer has advised that pregnant women not be subjected to noise in excess of 90 dB for an 8 hour work day (Moore). This is the guideline recommended for general consideration, and is without respect to maternal hearing protection, as neither ear plugs nor ear muffs offer any fetal hearing protection...

Low birth weight is the most common non-auditory consequence associated with maternal sound exposure; however, this finding is not consistent across studies summarized by Nurminen in 1995. There has been extended discussion of possible non-auditory consequences to maternal sound exposure, related to stress-induced increase of catecholamine levels and placental vasoconstriction. Shift work in a "noisy" environment was associated with pregnancy-induced hypertension in one study. Whether sound-related, stress-induced increases of catecholamine levels and placental vasoconstriction are causally related to preterm births is unproven. In one study of sound exposure during the first trimester of pregnancy, there was no association with selected structural malformations in infants (orofacial cleft or structural defect of the central nervous system, skeleton, or heart and great vessels).

The above is reinforced in <http://oem.msu.edu/userfiles/file/News/Hv6n3.pdf>, which highlights cause for grave concern:

There has been one study of the hearing of children born to mothers exposed to noise during pregnancy. A study of 131 children ages 4-10 from Quebec showed a 3-fold increased risk of high-frequency hearing loss in children whose mothers had been exposed to 85-95 dB, particularly if these exposures involved a strong component of low-frequency noise.

Animal studies have shown increased sensitivity of the developing cochlea to noise-induced damage. The literature on the adverse effect of noise on pregnant women is more extensive for outcomes of birth defects, shortened gestation and decreased birth weight. These studies were done both on pregnant women exposed to noise at work and in relationship to environmental noise from living near airports. The results of the studies have been mixed, some finding associations and others showing no effect.

What recommendations should be made to pregnant women? The English abstract of a German article from 1997 states that "Health legislation laws in most countries forbid pregnant women to work in surroundings with a high noise level (80 dB continuous noise and/or rapid impulse noise changes of 40 dB)." There are no such regulations in Michigan or the rest of the United States.

The Committee of the Environment of the American Academy of Pediatrics concluded: "Exposure to excessive noise during pregnancy may result in high frequency hearing loss in newborns, and may be associated with prematurity and intrauterine growth retardation." Their only clinical recommendation was: "Pediatricians are encouraged to consider screening, for noise-induced hearing loss, those infants who were exposed to excessive noise in the uterus . . ." There is no definitive conclusion, and individual recommendations in clinical settings will need to be made in the face of uncertainty.

Although the evidence of the many varied impacts of noise on the fetus may not be “definitive,” per se, it does strongly indicate a grave likelihood and risk that cannot be ignored, as demonstrated wisely by OSHA, NIOSH, various medical societies, European countries, and even the DoD being concerned enough to recommend or require noise-exposure avoidance for pregnant women. Yet many women of reproductive age live under and adjacent to the OLFC flight path and are exposed to levels of Growler noise that modestly to greatly exceed safe levels for their developing fetus.

The Navy understands that and has adopted reasonable protections for its personnel, but the DEIS has not recognized this as an impact of Growler noise that needs to be revealed by the EIS.

- Appendix D -
 (Extension of Comment 7)
F-18 ACCIDENTS/INCIDENTS 1980-2014

Overview: Between 1980 and part of 2014 the EA-18/F-18 sustained 39 incidents, while the EA-6B sustained 7 (Total, 46 incidents in 34 years). That equates to 1.15 incidents per year for EA-18/F-18 versus 0.21 incidents per year for the EA-6B.²⁸

1980 None

1981

26 May

Grumman EA-6B Prowler, BuNo 159910, of VMAQ-2 Detachment Y, crash landed on flight deck of USS Nimitz, off the Florida coast, [27] killing 14 crewmen and injuring 45 others (some reports say 42, some 48). The crash was the result of the aircraft missing the last arresting cable, while ignoring a wave-off command. Two Grumman F-14 Tomcats struck and destroyed (BuNos. 161138 and 160385), 3 F-14s, 9 LTV A-7 Corsair IIs, 3 S-3A Vikings, 1 Grumman A-6 Intruder and 1 SH-3 Sea King damaged. [28] Forensic testing conducted found that several members of the deceased flight deck crew tested positive for marijuana (the officers on board the aircraft were never tested, claimed one report). The responsibility for the accident was placed on the deck crew. The official naval inquiry stated that the accident was the result of drug abuse by the enlisted crewmen of the *Nimitz*, despite the fact that every death occurred during the impact of the crash, none of the enlisted deck crew were involved with the operation of the aircraft, and not one member of the deck crew was killed fighting the fire. As a result of this incident, President Ronald Reagan instituted a "Zero Tolerance" policy across all of the armed services—which started the mandatory drug testing of all US service personnel. [29] In another report, however, the Navy stated that pilot error, possibly caused by an excessive dosage of brompheniramine, a cold medicine, in the blood of pilot Marine 1st Lt. [REDACTED], of Houston, Texas, "may have degraded the mental and physical skills required for night landings." The report described brompheniramine as "a common antihistamine decongestant cold medicine ingredient." [30] "Last October [1981], Rep. Joseph P. Addabbo, (D-N.Y.) said that an autopsy

²⁸ The incident totals here are not inclusive of all of 2014 and include none of 2015 and 2016, during which time there have been a large number of fatal and near-fatal F-18 incidents, one in December 2016 at Ault Field that could have but luckily did not impact on Oak Harbor.

conducted on the pilot's body disclosed up to 11 times the recommended dosage of a cold remedy in his system." [30] This report seems to bely the above account that no testing was done on the flight crew.

28 September or 30 September (sources differ)

During a NAVAIR weapons release test over the Chesapeake Bay, a McDonnell-Douglas F/A-18A-3-MC Hornet, BuNo 160782, c/n 8, out of NAS Patuxent River, Maryland, drops a vertical ejector bomb rack with an inert Mk. 82 bomb from the port wing, which shears off the outer starboard wing of Douglas TA-4J Skyhawk camera chase plane, BuNo 156896, c/n 13989, which catches fire as it begins an uncontrolled spin. Two crew successfully eject before the Skyhawk impacts in the bay, the whole sequence caught on film from a second chase aircraft. Video of this accident is widely available on the web. [35][36]

29 October

A United States Navy Grumman EA-6B Prowler, BuNo 159582, 'AC-604', of VAQ-138, from NAS Whidbey Island, Washington, crashes at 0850 hrs. in a rural field near Virginia Beach, Virginia, killing three crew. Wreckage sprayed onto nearby houses, a barn and a stable with 35 horses, but no fires were sparked and there were no ground injuries. The Prowler had departed NAS Norfolk with three other aircraft at 0832 hrs., bound for the USS John F. Kennedy, off the Virginia coast before crashing three miles from NAS Oceana. Navy officials said they did not know if the pilot was trying for Oceana. [37][38]

1982 None

1983 None

1984 None

1985 None

1986 None

1987 None

1989

24 April

Marine Corps Colonel [REDACTED], then commanding officer of MAG-11, was performing stunts at the MCAS El Toro Air Show, California, before a crowd of 300,000 when he crashed his McDonnell-Douglas F/A-18 Hornet at the bottom of a loop that was too close to the ground. [20] The aircraft was in a nose-high attitude, but still carrying too much energy toward the ground

when it impacted at more than 300 mph (480 km/h). Col. [REDACTED] was subjected to extremely high G forces that resulted in his face making contact with the control stick and sustaining serious injury. He broke his arm, elbow and ribs, exploded a vertebra and collapsed a lung. Col. [REDACTED] survived and retired from the Marine Corps. The F/A-18 remained largely intact but was beyond repair.[152][153]

5 December

A U.S. Navy Grumman EA-6B Prowler, BuNo 163044, 'NG', of VAQ-139, goes missing over the Pacific Ocean during training exercise 900 miles off San Diego. Search fails to find any sign of the four crew.[163]

1989

19 July

A U.S. Navy McDonnell-Douglas F/A-18 Hornet from Cecil Field, NAS Jacksonville, Florida, loses a 950-pound training bomb over Waldo, Florida, in the afternoon. The ordnance narrowly misses home with four inside, bounces off tree, skips over a second home, and impacts in a field where the spotting charge explodes. No one is injured in the incident. Navy spokesman [REDACTED] states that the pilot lost track of the bomb after it fell off the jet.[178]

1990

23 January

Mid-air collision between two Blue Angels McDonnell-Douglas F/A-18 aircraft during a practice session at El Centro. One airplane, Angel Number 2, 161524, piloted by Capt. [REDACTED] (ejected) was destroyed and the other, Angel Number 1, badly damaged but managed to land safely. Both pilots survived unharmed.[3]

6 November

Crew of an US Navy Grumman A-6E Intruder, '506', of VA-176, suffering engine fire, aim bomber away from Virginia Beach, Virginia oceanfront before ejecting just after take-off from NAS Oceana, Virginia's Runway 5. Bomber comes down at 2215 hrs. in the Atlantic Ocean ~.75 miles offshore, after just clearing the Station One Hotel, on-shore breeze carries crew inland about three blocks from the beach, one landing in a tree, the other in a courtyard of a condominium, suffering only cuts and bruises. Aircraft, on routine training mission, was unarmed. Officials did not identify the crew, but said the pilot was a 29-year old lieutenant, and the bombardier-navigator was a 34-year old

lieutenant commander, both assigned to VA-176. [21][22]

1991

5 June

A Royal Australian Air Force McDonnell-Douglas F/A-18A Hornet, A21-041, of 75 Squadron, crashes 100 kilometres NE of Weipa, Queensland. The pilot was killed. The wreckage was found in July 1994.

1992

2 November

A United States Navy Grumman EA-6B Prowler crashes in field near NAS El Centro, California. The three crewmen ejected at a very low altitude while inverted, and all were killed. Crew included Lt. [REDACTED] (USN), Lt. [REDACTED] (USMC), and Ltjg. [REDACTED] (USN).

1993 None

1994 None

1995 None

1996

9 March

A Marine Corps McDonnell-Douglas F-18 Hornet went down off Charleston, South Carolina, with two pilots aboard. The search for the Marine pilots was called off 10 March.

1997

23 September

Static test Boeing F/A-18E Super Hornet airframe, ST56, being barricade tested at NAES Lakehurst, New Jersey by being powered down a 1.5-mile (2.4 km) track by a Pratt & Whitney J57-powered jet car, flips over and crashes into nearby woods when the steel cable linking the barrier with underground hydraulic engines fails

1998

3 February

Main article: Cavalese cable car disaster (1998)

A U.S. Marine Corps Grumman EA-6B Prowler, BuNo 163045, coded 'CY-02', callsign Easy 01, of VMAQ-2, struck a cable supporting a gondola in Cavalese. The cable was severed and 20 people in the cabin plunged over 80 metres to their deaths. The aircraft had wing and tail damage but was able to return to the base

8 April

A Swiss Air Force McDonnell-Douglas F/A-18 Hornet crashes near Crans-Montana, Switzerland.

1999 None

2000 None

2001

29 May

A US Navy McDonnell-Douglas FA-18C Hornet from VFA-106 crashed near Fort Pierce, Florida, during a ferry flight from NAS Oceana, Virginia, to NAS Key West, Florida. Pilot was killed.

2002

17 February

A USMC McDonnell-Douglas F/A-18D Hornet from VMFA-533 crash lands at Twentynine Palms, California. Both aircrew eject but the WSO, while hospitalized, dies from his injuries.

18 October

Two Boeing F/A-18F Super Hornets collide during air combat manoeuvring off the Southern California coast and crash into Pacific 80 mi SW of Monterey, California. All four crew (two Pilots and two WSOs) are killed while flying (KWF).

3 November

An McDonnell-Douglas FA-18C Hornet from VFA-34 failed to return to USS George Washington from a night at sea bombing mission and crashed into Adriatic Sea. Pilot was killed.

2003

17 January

A US Marine Corps McDonnell-Douglas F/A-18D Hornet crashes into the Pacific Ocean off of MCAS Miramar, California, due to a material failure during a functional check flight with one engine shut down. Both crew eject safely and are recovered.

11 September

While landing aboard USS George Washington, operating off the Virginia Capes, an McDonnell-Douglas F/A-18D-32-MC Hornet (Lot 13), BuNo 164198, c/n 961/DO63, [46] 'AD 432', of VFA-106, [47] goes off the angle at ~1600 hrs. when the arresting cable parts, pilot ejects and is recovered. The broken cable, whipping back across the deck, injures eleven deck crew, the most serious of which are airlifted to shore medical facilities. [48] Footage: <http://www.youtube.com/watch?v=70xMox2Kdxs&feature=related>



□
 Captain [REDACTED] ejects from his F-16 at an air show in September 2003.

24 March

US Navy McDonnell-Douglas F/A-18C Hornet, of VFA-82, crashes into the Atlantic Ocean near Tybee Island, Georgia. Pilot ejects safely and is rescued.

21 July

Two US Marine Corps McDonnell-Douglas F/A-18 Hornets of VMFA-134, 3rd Marine Air Wing, based at MCAS Miramar, California, suffer mid-air collision over the Columbia River, 120 miles (190 km) E of Portland, Oregon, shortly after 1430 hrs., killing Marine Reservists Maj. [REDACTED], 36, of Spartanburg, South Carolina, and Capt. [REDACTED], 36, of Old Hickory, Tennessee in F/A-18B, BuNo 162870, 'MF-00', [56] coming down in the river. Maj. [REDACTED], 38, ejects from F/A-18A, BuNo 163097, 'MF-04', [56] landing nearby on a hillside W of Arlington, Oregon, and is taken to Mid-Columbia Medical Center in The Dalles, suffering minor injuries. [57] All three crew eject but only two parachutes open. The fighters were on their way to the Boardman Air Force Range, where the Oregon Air National Guard trains, when they collided, said one spokesman. Another spokesman told the Associated Press that the aircraft were on a low-altitude training exercise. [

14 September

A US Navy McDonnell-Douglas F/A-18C Hornet of VMFA-212 crashes at Manbulloo Station about 10 M SW of RAAF Tindal, Australia, during a day approach to landing. The pilot ejects and is injured.

9 November

A U.S. Navy McDonnell-Douglas F/A-18C Hornet crashes 15 miles E of Nellis AFB, Nevada, after in flight fire and becoming uncontrollable shortly after takeoff. Pilot ejects safely.

2 December

The pilot of a Blue Angels McDonnell-Douglas F/A-18 Hornet, BuNo 161956, ejects approximately one mile off Perdido Key, Florida, after reporting mechanical problems and loss of power. Lt. [REDACTED] suffered minor injuries and fully recovered.

2005

29 January

A Boeing F/A-18 Super Hornet crashes into ocean while landing on USS Kitty Hawk (CV 63). The No. 3 arresting wire snapped, resulting in the aircraft plunging into the Pacific Ocean 100 miles SE of Yokosuka, Japan, hitting an SH-60F and an EA-6B Prowler en route to the water. Crew LTJG [REDACTED], LCDR [REDACTED] ejected safely.

18 July

A Boeing F/A-18E Super Hornet and a Boeing F/A-18F Super Hornet from NAS Lemoore, California, collide over the China Lake, California, weapons testing ground. The pilot of the E is KWF, while the two crew of F eject with injuries.

2006 None

2007**21 April**

Main article: 2007 Blue Angels South Carolina crash

A United States Navy Blue Angels McDonnell-Douglas F/A-18 Hornet, BuNo 162437, crashes into a residential neighborhood while performing at an airshow in Beaufort, South Carolina, in the United States, killing the pilot. Military investigators blame pilot for his fatal crash. A report obtained by The Associated Press said that Lieutenant Commander [REDACTED] got disoriented and crashed after not properly tensing his abdominal muscles to counter the gravitational forces of a high-speed turn.[9]

2008**6 January**

A Boeing F/A-18E Super Hornet has a mid air collision with a Boeing F/A-18F Super Hornet over the North Persian Gulf during routine ops from the USS Harry S Truman. One pilot ejects and is recovered.

13 June

Two United States Navy jets collided over the NAS Fallon, Nevada high desert training range, killing a pilot of the McDonnell-Douglas F/A-18C Hornet, based at NAS Oceana, Virginia. Two crew aboard the F-5 Tiger ejected safely and were rescued.

8 December

Main article: 2008 San Diego F-18 crash

A USMC McDonnell-Douglas F/A-18D Hornet, BuNo 164017, crashed into a neighborhood, University City, coming down two miles (3 km) west of MCAS Miramar, California, just after the Marine pilot, Lieutenant [REDACTED], from VMFAT-101, [141] ejected. Four fatalities on the ground. The Hornet was being flown from the USS Abraham Lincoln, [142] The commander of the fighter squadron involved in the crash, its top maintenance officer and two others have been relieved of duty as a result of the crash investigation. The pilot has been grounded pending a further review, Maj. Gen. [REDACTED] announced in March 2009. [143]

2009**2 April**

A Spanish Air Force F/A-18 Hornet crashes in northern Spain. Pilot ejects safely. [167]

16 June

Two Spanish Air Force McDonnell-Douglas F/A-18 Hornets collide in midair near the Canary Islands, Spain. Both pilots eject safely. [191]

17 October

A United States Marine Corps McDonnell Douglas F/A-18D Hornet (164729) from the Marine All Weather Fighter Attack Squadron No. 224 VMFA(AW)-224 based at the Marine Corps Air Station Beaufort, Beaufort, South Carolina experiences a heavy landing at Jacksonville International Airport, Duval County, Florida. The aircraft with two other Marine F/A-18 Hornet aircraft were landing at Jacksonville Airport in preparation for a flyover at the nearby NFL Jacksonville Jaguars game when the aircraft experiences an airborne technical fault and the port landing-gear collapses causing the aircraft to land only on the nose-wheel, starboard undercarriage and the exposed port-side external fuel-tank. The F/A-18 Hornet skidded down the runway with most damage occurring to the grounded external fuel-tank and the 2 Marine crew were uninjured. [237]

2010

24 January

A Finnish Air Force (FinAF) McDonnell-Douglas F-18 Hornet crashed in the south of the country. The fighter crashed in Juuapajoki, north of the southern city of Tampere at about 11:50 local time. The two pilots, who were on a routine training flight, ejected safely and were uninjured. [9]

10 March

A United States Marine Corps (USMC) McDonnell-Douglas F/A-18D Hornet, BuNo 164694, 'WK-01', from VMFA (AW)-224 crashed into the Atlantic Ocean, app. 35 miles (56 km) east of St. Helena Sound, South Carolina, after a double engine failure and a fire. Both pilots ejected and were floating in an inflatable life raft for about one hour before they were rescued by a USCG helicopter. [30]

11 March

23 July

A Royal Canadian Air Force (RCAF) McDonnell-Douglas CF-18 Hornet, 188738, of 419 Moose Squadron, based at Cold Lake, crashed at Lethbridge County Airport during a low-speed, low-altitude practice run for the Alberta International Airshow. The pilot, Capt. [REDACTED], 36, ejected in a Martin-Baker seat seconds before the fighter fell off on its starboard wing and

impacted on the airfield. He suffered a compression fracture in three vertebrae but is expected to fully recover

2 December

A USN F/A-18C Hornet, BuNo 165184, 'AD-351', suffered port undercarriage collapse on landing at NAF El Centro, California, at 1615 hrs., and departs runway. The pilot ejects safely

2011

30 March

Ten sailors are injured when an engine of a USMC McDonnell-Douglas F/A-18C Hornet of VMFAT-101 based at MCAS Miramar, California, [80] suffers a catastrophic failure while preparing for launch at 1450 hrs. during routine training exercises from the USS John C. Stennis, ~100 miles off the California coast. USN Cmdr. [REDACTED] said that five of the injured are taken by helicopter to the shore, four to the Naval Medical Center, San Diego, and one to Scripps Research Institute at La Jolla, California. None of the injuries were considered life-threatening but the fighter sustained damages over \$1 million. The ensuing fire was quickly extinguished and the carrier itself was not damaged. [81]

2012

24 February

A USN Boeing F/A-18F Super Hornet on a training flight crashed into a dry lake bed 30 miles from Naval Air Station Fallon. The crew was recovered by helicopter.

6 April

A McDonnell Douglas F/A-18 Hornet of the USN crashed on take-off from Naval Air Station Oceana, Virginia Beach, Virginia. Both crew ejected. The aircraft crashed into a block of apartment complexes. No ground injuries were reported. [108] However, another report states that the pilot and one individual on the ground suffered unspecified injuries of unknown severity. CNN U.S. News confirmed that the crew had ejected, but their condition is not specified. [109]

1 September

A USMC McDonnell Douglas F/A-18C Hornet crashed in a remote range area of the Fallon Range Training Complex. The pilot ejected from the aircraft safely. [119]

2013

11 March

A USMC Grumman EA-6B Prowler crashed during a scheduled low-level flight. 3 fatalities. [125]

23 October

A Swiss Air Force (SWAF) McDonnell Douglas F/A-18 Hornet crashed

into a mountain side near Alpnachstad. Both pilots died in the crash. [134]

2014

15 January

A USN Boeing F/A-18E Super Hornet of VFA-143 crashed off Virginia, pilot was rescued.

4 June

An F/A-18E Super Hornet of VFA-81 Sun Liners crashed while trying to land on the USS. Carl Vinson off the coast of Southern California .Pilot ejected safely.

In addition to the above, it is likely that hypoxia may be contributing to the accident rate of the F-18 airframe (Growler), as reported below by The Hill:
<http://thehill.com/policy/defense/268221-navy-investigating-rise-of-health-issues-among-f-a-18-pilots#.VrTCx-wvX-U.facebook>

Navy investigating rise of health issues among fighter jet pilots

By Rebecca Kheel - 02/04/16 12:15 PM EST

The Navy is investigating a rise in health issues among pilots of its fleet of F/A-18 and EA-18G fighter jets, the chairman of a House Armed Services Committee subpanel said Thursday.

“We’ve been informed that the Navy has organized a Physiological Episode Team, to investigate and determine the causes of these physiological episodes in aviators,” Rep. Michael Turner (R-Ohio), chairman of the Subcommittee on Tactical Air and Land Forces, said at a hearing Thursday. “As symptoms related to depressurization, tissue hypoxia and contaminant intoxication overlap, discerning a root cause is a complex process.”

The Navy started noticing a rise in physiological episodes among pilots in 2009, Turner said.

In 2006, the rate of episodes per 100,000 flight hours on the F/A-18 was 3.66, according to written testimony from Navy and Marines leaders.

By the period from Nov. 1, 2014, to Oct. 31, 2015, the rate was 28.23, according to the testimony.

For the EA-18G, the rate was 5.52 from Nov. 1, 2010, to Oct. 31, 2011. From Nov. 1, 2014, to Oct. 31, 2015, it was 43.57.

“While episodes of decompression sickness typically accompany a noticeable loss of cabin pressure by the aircrew, the cause of most physiological episodes is not readily apparent during

flight," the testimony says. "Reconstruction of the flight event is difficult with potential causal factors not always readily apparent during post-flight debrief and examination."

The testimony was written by Lt. Gen. [REDACTED], deputy commandant of the Marine Corps for aviation; Rear Adm [REDACTED], director of the Air Warfare Division of the Navy; and Rear Adm [REDACTED], program executive officer of tactical aircraft of the Navy.

Of the 273 cases adjudicated so far by the investigation team, 93 involved some form of contamination, 90 involved an environmental control systems (ECS) component failure, 67 involved human factors, 41 involved an on-board oxygen generating system (OBOGS) component failure, 11 involved a breathing gas delivery component failure, and 45 were inconclusive or involved another system failure.

In response to the episodes, the Navy has put in place mandatory cabin pressurization testing, environmental control systems pressure port testing and annual hypoxia awareness training for pilots, among other steps.

"Many other solutions are in the process of being fielded or under development as well," the testimony says. "Future projects include technology to collect better sample data throughout the ECS and OBOGS, increased capacity for the emergency oxygen bottles, and physiological detection of symptoms."

- Appendix E -

(Extension of Comment 7)

NASWI Mishaps for Prowlers and Growlers, 1980–2013

Severity-A Mishaps: All A-level mishaps involving Intruders (A006E) or Prowlers (EA006B) and Growlers (EA018G) between January 1980 and September 2013 based out of NASWI.

Jet Type	Date	Severity	Shore Location	Reference No.
EA006B	8/19/1981	A	WDBYI	30358
Narrative: Combat maneuvering mishap. Vertical 7000' descent/crash. Crew ejected safely.				
EA006B	12/13/1984	A	WDBYI	24611
Narrative: Explosion and fire on climb-out. Pilots ejected. Aircraft then exploded.				
A006E	5/5/1988	A	WDBYI	93760
Narrative: Jet crashed 260' below wooded ridge during low-level training. Crew died.				
A006E	8/8/1989	A	WDBYI	2465
Narrative: Jet crashed into ground during day demo practice. Accelerated stall. Crew (2) died.				
A006E	11/6/1989	A	WDBYI	3354
Narrative: System failures = lost control of jet & crashed in water. Crew ejected safely.				
A006E	1/22/1990	A	WDBYI	3966
Narrative: Uncontrolled nose-up pitch on takeoff & crash. Crew ejected too low = injury.				
A006E	10/10/1991	A	WDBYI	34217
Narrative: Low-level training wing touched river water = crash in river. Crew(2) died.				
EA006B	3/19/1992	A	WDBYI	35429
Narrative: Crash into mountains during maneuvers resulting in post-stall gyration. Crew ejected.				
EA006B	11/15/2001	A	WDBYI	82114
Narrative: Aircraft crashed during routing training situation. A lot said but a lot seemed not said.				
EA006B	5/21/2003	A	NUW	84989
Narrative: Problems from damaged wing on takeoff created big issue; crew landed safely				
F018E (?)	4/30/2006	A	NUW	100452
Narrative: Engine fire/failure (blew up) during takeoff, which was aborted. Pilot escaped.				

Severity-B Mishaps: All eight B-level mishaps involving Intruders (A006E) or Prowlers (EA006B) and Growlers (EA018G) between January 1980 and September 2013. (FOD = foreign object damage.)

Jet Type	Date	Severity	Shore Location	Reference No.
A006E	1/23/1980	B	WDBYI	31074
Narrative: Severe vibration at landing. Both engines FODded.				
A006E	1/23/1980	B	WDBYI	31075
Narrative: Engine malfunction and flight abandoned. Engine removed.				

A006E	11/25/1980	B	WDBYI	31906
Narrative: Large flock of birds hit after takeoff. Returned to safe landing. Engine FODed.				
A006E	2/22/1982	B	WDBYI	27347
Narrative: After return from FCLP all three landing gears collapsed on engine turnoff.				
A006E	10/24/1985	B	WDBYI	22228
Narrative: Tire blew on landing and jet spun off runway.				
EA006B	12/1/1996	B	WDBYI	80502
Narrative: Pilot error; landed too fast and went off end of runway. Extensive damage. Crew ok.				
EA006B	2/26/2004	B	NUW	88797
Narrative: Land gear failure on landing; plane veered off runway. No injury. Plane damaged.				
EA006B	4/1/2004	B	NUW	88423
Narrative: Bird strike shut down engine. Pilot returned, landed safely. Engine/other damaged.				

Severity-C Mishaps: Indiscriminate subsample ($n = 17$) of a total of 70 Intruder (A006E) or Prowler (EA006B) and 4 Growler (EA018G) Level-C mishaps between January 1980 and September 2013. (FOD = foreign object damage.)

Jet Type	Date	Severity	Shore Location	Reference No.
EA006B	2/4/1981	C	WDBYI	29404
Narrative: Bird ingested sometime during flight.				
EA006B	7/14/1981	C	WDBYI	30167
Narrative: Landing gear malfunction. Parts of wing touched runway.				
EA006B	11/17/1981	C	WDBYI	30851
Narrative: Encountered bird flock that FODed both engines. Uneventful return and landing.				
EA006B	11/23/1981	C	WDBYI	30888
Narrative: FOD damage discovered after flight.				
EA006B	1/28/82	C	WDBYI	27243
Narrative: FOD damage discovered after flight				
EA006B	2/20/1982	C	WDBYI	27340
Narrative: Engine FODed after routine maintenance.				
A006E	2/16/1982	C	WDBYI	27323
Narrative: Engine FODed while landing				
A006E	2/18/1982	C	WDBYI	27334
Narrative: Engine FODed due to icing malfunction.				
EA006B	8/16/2008	C	NUW	98982
Narrative: FOD of tire and failure of tire resulted in aborted takeoff.				
EA006B	10/29/2009	C	NUW	n/a
Narrative: Tire blowout on landing caused much damage to plane underside. Crew okay.				
EA006B	1/19/2011	C	NUW	n/a
Narrative: Landing gear failure on 5 th landing run resulted in arrested landing.				

EA006B	8/10/2011	C	NUW	n/a
Narrative: Outboard leading edge of slat on wing came off during flight. Discovered post flight.				
EA018G	9/23/2011	C	NUW	n/a
Narrative: Bird strike causes irreparable dent in radome; discovered post flight.				
EA018G	10/13/2011	C	NUW	n/a
Narrative: Plastic rotator tool left in intake and found after jet returned. Tool eaten up by engine				
EA006B	5/2/2012	C	NUW	n/a
Narrative: Canopy hinge access cover came off and struck fin pod radome in flight at 800' AGL.				
EA018G	1/16/2013	C	NUW	n/a
Narrative: Arresting gear problems caused damage to landing gear door.				
EA018G	9/6/2013	C	NUW	n/a
Narrative: Bird strike damage to right aileron discovered post flight.				

- Appendix F -

(Extension of Comment 7)

Things Falling Off Aircraft

From there were 41 mishaps involving things coming off aircraft including Intruders (A006E), Prowlers (EA006B) and Growlers (EA018G) between July 1981 and July 2013. Most were hazards (H) but a few were class C or A mishaps. No property damages were reported.

Jet Type	Date	Severity	Shore Location	Reference No.
EA006B	7/27/1981	H	WDBYI	30240
Narrative: Part (4 x 4 in) of wing cover came off in flight. Damage to plane/property possible.				
EA006B	2/24/1982	H	WDBYI	27365
Narrative: Bay door opened in flight. Cable broke loose from fuselage; entered port engine.				
EA006B	10/1/1982	H	WDBYI	28626
Narrative: Parts of blown tire on takeoff damaged parts of aircraft on takeoff.				
A006E	8/17/1983	H	WDBYI	26276
Narrative: Lost wing access control panel during flight. Hinge fatigue suspected.				
A006E	7/11/1985	H	WDBYI	21284
Narrative: Tail pipe door on port engine lost in flight. Fatigue suspected.				
EA006B	1/13/1986	H	WDBYI	16820
Narrative: Lost outboard flap during landing.				
A006E	9/17/1987	H	WDBYI	15978
Narrative: Multiple ejector rack accidentally jettisoned during weapon test. Crew error.				
A006E	4/9/1988	H	WDBYI	8367
Narrative: Tire tread blew off in takeoff and damaged wing.				
A006E	4/14/1988	H	WDBYI	8402
Narrative: Another tire tread blow off. Not known until 70 miles away.				
A006E	4/25/1988	H	WDBYI	8499
Narrative: Inboard forward MK-76 departed aircraft after hitting hawk at 1 mile post departure.				
A006E	7/8/1988	H	WDBYI	9113
Narrative: Tire tread blew off in takeoff and damaged inboard flap.				
EA006B	1/18/1990	H	WDBYI	3932
Narrative: Tire tread blew off in takeoff and damaged landing gear hydraulics.				
A006E	3/7/1990	H	WDBYI	4455
Narrative: LOU-10 rocket pod released in flight; equipment failure. No damage; pod not found.				
A006E	3/12/1990	H	WDBYI	4508
Narrative: Tailpipe door departed aircraft during heavy G-forces exercise.				
EA006B	10/19/1990	H	WDBYI	6865
Narrative: Lost outboard slat (screw failure) during break for landing.				

A006E	11/8/1990	H	WDBYI	7125
Narrative: Just after FCLP takeoff, radome bolt came off & entered engine.				
^a EA006B	1/16/1991	H	WDBYI	32101
Narrative: RAT hub failure & blades came off; one blade went through RAT door. ^a				
EA006B	2/21/1991	H	WDBYI	32358
Narrative: Striker plate screws & safety wire came off during break roll maneuver.				
A006E	6/5/1991	H	WDBYI	33241 6/5/1991
Narrative: Hose coupling & basket trailing aircraft after refueling.				
EA006B	3/3/1992	H	WDBYI	35281
Narrative: Hose and drogue departed aircraft during low-level flight.				
EA006B	10/26/1992	H	WDBYI	36985
Narrative: Outboard slat/bolts departed wing during break turn.				
EA006B	5/20/1993	H	WDBYI	38346
Narrative: 2 x 3 ft wing panel departed aircraft during check flight.				
A006E		H	WDBYI	
Narrative: Starboard access door fell off during flight including 6 FCLPs.				
A006E	9/20/1994	H	WDBYI	41805
Narrative: UHF antenna departed aircraft during flight with a loud thump.				
EA006B	10/17/1994	H	WDBYI	41619
Narrative: Port engine tailpipe door departed aircraft during flight.				
EA006B	2/20/1996	H	WDBYI	43429
Narrative: Starboard outboard slat departed aircraft during flight. Emergency landing.				
EA006B	4/23/1998	H	WDBYI	81151
Narrative: Brake did not release on landing; tire blew; aircraft skidded off runway.				
EA006B	7/8/1999	H	WDBYI	50158
Narrative: Improper maintenance of external stores jettison.				
EA006B	11/1/1999	H	WDBYI	51340
Narrative: Tailpipe door departed aircraft; located door; found wrong door had been installed.				
EA006B	5/22/2002	H	NUW	66848
Narrative: Nose wheel well locking bolt came off in flight; resulted in multiple damage issues.				
EA006B	5/21/2003	A	NUW	84989
Narrative: ALQ pod bolts failed; pod departed aircraft damaging wing; pilot able to land safely.				
EA006B	11/24/2009	H	NUW	95493
Narrative: Flap gear box panel came off in flight.				
EA018G	4/6/2011	H	NUW	
Narrative: Secondary flap seal broke off in flight & later found in rural area. Turkey hit blamed.				
EA006B	7/20/2011	H	NUW	
Narrative: Port wingtip port cover broke off in flight.				
EA006B	8/10/2011	H	NUW	
Narrative: Right wing outboard leading edge slat departed aircraft in flight.				
EA018G	1/26/2012	H	NUW	

Narrative: Pylon post blank-off plate departed aircraft during flight.				
EA006B	5/2/2012	C	NUW	
Narrative: Canopy Hinge Access Cover departed aircraft and struck Fin Pod Radome in flight				
EA018G	1/5/2013	H	NUW	
Narrative: Variable Exhaust Nozzle Secondary Seal departed aircraft in flight.				
EA018G	1/16/2013	C	NUW	
Narrative: Problem w/ arresting gear caused mishap on takeoff.				
EA018G	7/16/2013	H	NUW	
Narrative: Forward antenna access door of ALQ-99 came off during landing.				
EA018G	7/24/2013	H	NUW	
Narrative: Blank-off panel door departed aircraft during flight.				

^a The narrative on this incident, indicates this was the “THIRD OCCURRENCE OF RAT BLADES FALLING OFF IN LAST 60 DAYS IN SQD,” but no other reports of such RAT incidents were in the data provided and summarized here.

– Appendix G –

(Extension of Comment 10)

Composite of Correspondence on the Number of Jets

COER challenges the Navy on the total number of jets first submitted to the public in the Navy's 2005EA. That EA addressed the transition from Prowlers to Growlers, which were to be fewer in number and quieter than the Prowlers. The EA said 52 Growlers would replace 72 Prowlers:

Replacement of the EA-6B with the EA-18G will begin in 2008 and be completed in 2013. The replacement process will result in an overall decrease in the number of Electronic Attack (VAQ) aircraft and associated personnel stationed at NAS Whidbey Island. A total of 57 EA-18G aircraft will replace the existing 72 EA-6B aircraft, resulting in a decrease of 15 VAQ aircraft stationed at NAS Whidbey Island and a decrease of approximately 1,106 personnel associated with the AEA aircraft squadrons (Tables 1-1 and 1-2).

The first Growler did not arrive on Whidbey Island until 2008 and it was not until 2013 that the impacts of the new jet were felt by the under-flight communities. It was clear that neither of the submitted facts from the Navy were true: the jet was not quieter and there were more of them. The Navy has asserted that the community did not challenge the Navy within the 6 years – but COER has a FOIA document from the Navy that shows the first Growler did not arrive on Whidbey Island in 2008.

COER took the Navy to court in early 2013 to press them for an EIS on the transition from Prowler to Growler addressing cumulative impacts of all operations at NASWI, and particularly of the Growler aircraft. This was well within the 6 years. The Navy conceded and agreed to prepare an EIS in 2013 – still within the 6 years. The Navy never raised a statute of limitations defense to our filing of the complaint and waived that defense. The Navy ignored this threshold and moved onto its 2012EA and gave themselves permission to add yet more Growlers. It was only then that the Navy limited the scope of COER's demanded EIS to the addition of 36 more Growlers and are for all practical purposes omitting impacts of the first Growlers and the 82 that are now at NASWI. The Navy did this in their scoping of the EIS, AFTER they agreed to prepare an EIS. COER has always challenged that narrowing of the scope as counter to the intentions of a NEPA Environmental Impact Statement. So from 2008 to 2016, the Navy moved approximately 82 Growlers to Whidbey Island and no impacts of that huge transition have been studied. We continue to challenge the Navy's misleading information about the total number of jets and therefore their cumulative total impact.

The Current DEIS now asserts that there will be 118 EA18G Growlers sited at NASWI. According to the Congressional records this number is also not valid. Clearly, the Navy has 160 jets ordered but no honest plans to study their impact. The impacts of the transition from Prowler

Citizens of Ebey's Reserve Comments on Draft EIS for NASWI

to Growler have never been sufficiently studied while the Navy continues to bootstrap all of its electronic warfare jets to Whidbey Island. The real number are not addressed in the DEIS.

This chart is from Congressman Larsen in 2014 is in response to "where are all these Growlers going?" There were 15 more planes purchased and 18 more scheduled for production since his response was written.

The table below shows the current locations and status of all Growlers as of October 15, 2014:

Number of Aircraft			Location	Description
135	94	82	NASWI	Actively operating at NASWI
		12	NASWI	Inactive at NASWI, to be used in case an aircraft becomes inoperable
	5		Naval Air Facility Atsugi	Forward deployed to Japan
	36		Naval Air Systems Command (NAVAIR) headquartered in Maryland; awaiting delivery; not yet built	For research, development, and testing of various technologies, as we discussed at the meeting.

The 22 Growlers in the Navy's unfunded request this year are outside the scope of the POR. If Congress votes to buy any of these aircraft the POR would increase by that number.

Chief of Naval operations Greenert is also quoted in Dec of 2015 in response to: *Where are they going?* He states in that article that the Navy had planned purchases of 153 Growlers.

It appears that the Navy has a history of ordering jets, then as they are being delivered - do the EIS "paperwork" - not really a process, more of a required activity. It also appears that everyone but the public knew/knows that 160 Growlers will be sited at NASWI.

The Selected Acquisition Report for Growlers – 2015:

Attached is the official congressional-approved Program of Record Selected Acquisition Report (SAR). It shows a total of 150 Growlers approved by congress (135 up through 2012, 15 more since)

Program Acquisition Unit cost - total costs divided by units planned: \$81.2M per Growler

Total program acquisition cost: \$ 14.395 Bn

Expended to date (FY2015): \$10.132 Bn

Deliveries:

Planned to date (FY2015): 113

Actual: 116

Total planned: 150

Delivery rate: 2/month

From COER Allies on Lopez Island regarding Total number of Growlers at NASWI

"At the Navy's Open House public meeting on Lopez Island on December 7, 2016, I had a chance to talk to a senior officer in uniform who I learned was from Norfolk, VA (Naval Facilities Engineering Command Atlantic?). He informed me that there were currently over 100 Growlers already stationed at NASWI, and that the number would increase to roughly 160 when all the procured Growlers were manufactured, tested, and flown one by one to Whidbey Island. Based on the draft EIS, there will be a maximum of 118 Growlers in active operations. If the total number of procured Growlers to be stationed at NASWI is 160 as I was informed by the senior officer, this means the remaining 42 Growlers will be "spare"? Given the costs involved, it is difficult to believe that 42 spare Growlers are needed for an active fleet of 118. Is it possible that additional Growlers may be further added to the current proposed addition of 35-36 Growlers to the existing 82 in active operations? If so, why is there no mention in the current EIS process? If not, what kind of maintenance routines would be needed to keep spare Growlers in good working conditions year after year? Do they have to be "run" occasionally to keep engines in working order? At a minimum, the draft EIS should include a description of the maintenance routines of these spare Growlers and an analysis of their potential environmental impacts, including noise and air emissions.

From: [REDACTED]

Execut

As of FY 2017 President's Budget
 Defense Acquisition Management
 Information Retrieval
 (DAMIR)

The procurement profile of the FY 2017 PB adds 7 EA-18G aircraft in FY 2016. The result of this addition will be a FY 2016 FRP contract for Lot 40 EA-18G aircraft, which increases the total Program of Record (PoR) from 150 to 157. As part of the A-12 settlement, the EA-18G Program received three EA-18G airframes, Contractor Furnished Equipment (CFE), and Airborne Electronic Attack (AEA) kits from the Boeing Company. The value to the program was \$198M. These aircraft are in the process of delivery and are annotated as Lot 37A aircraft. There was not a Total Obligation Authority (TOA) increase to the program. The three Growler aircraft have been added to FY 2013 and will be included in the PoR. FY 2016 \$198 Million A-12 In-kind Settlement does not reflect TOA. No additional resources were provided in FY 2016 to the Department of the Navy. The Assistant Secretary of the Navy, Research, Development, and Acquisition (ASN (RD&A)) acknowledged and concurred with the FY 2015 Program Deviation Report (PDR) on June 2, 2015. ASN(RD&A) approved the APB on October 15, 2015. The additional 7 EA-18G aircraft and related support in FY 2016 caused Procurement and O&S cost breaches. Additionally, an RDT&E breach occurred as a result of increased funding for Complex Emitter, Tactical Targeting Network Technology, and Distributed Targeting Processor-Networked efforts. As a result, a PDR and updated APB will be submitted. A contract modification to the Lot 38 FRP contract for the Lot 39 FRP procurement awarded

on October 26, 2015.

In summary:

Q: How many Growlers is the Navy now planning? A: 160

Q: How many Growlers were planned to replace the Prowlers? A: 57

Q: How many Growlers are discussed in the 2017 EIS? A: 118

Reference:http://www.dod.mil/pubs/foi/Reading_Room/Selected_Acquisition_Reports/16-F-0402_DOC_51_EA-18G_DEC_2015_SAR.pdf

The DEIS should be assessing the impact of 160 EA18G Growlers, not 118 EA18G Growlers, has no established base-line, and no cumulative impact data or research on the environment, health, safety and economic impacts resulting from this increase. This is so misleading, one wonders if the operation projection totals also have any relationship to actual plans.

Additionally, this is not information that the public can be expected to glean from reading the Navy's DEIS, which is long on words and short on actual detailed information and completely silent on the Navy's actual plans for increases up to 160 Growlers at NASWI.

Growler Impact on Air Quality at Whidbey Island Ault field and FCLP Operations at OLF Coupeville

One of the environmental impacts of Growler operations on Whidbey Island is the impact on air quality. Considerable discussion has taken place on noise issues, and more recently water pollution, but I have not seen any discussion on air quality.

Air quality is directly related to the amount of jet fuel burned. The amount of fuel burned and pollutants emitted by a Growler is staggeringly large, as shown below. As a point of reference, one Growler burns about 1192 gallons of fuel per hour during flight carrier landing practice (FCLP) with landing gear down, flaps down, low altitude, and slow speed. This is a high drag configuration that requires high thrust to stay airborne.

Consider that a typical family automobile might use 400 gallons of fuel in a full year (driving 10,000 miles a year at 25 miles per gallon). One Growler burns 400 gallons of fuel in twenty minutes of FCLP flight. If an average FCLP session for a pilot lasts 35 minutes and is about 12 bounces, it follows that during that time the jet burns $35\text{min}/20\text{min} \times 400 \text{ gal} = 700 \text{ gal}$, or about 58 gallons per bounce. So, at 35,000 operations or 17,500 bounces, the fuel burned is $58 \text{ gal} \times 17,500 \text{ bounces} = 1.015 \text{ million gal}$, or 2538 times the annual fuel consumption of one automobile.

The draft EIS for Growler operations has detailed information on air emissions in Appendix B. Page 42 of Appendix B has data for Alternative 1A, "High Tempo Year", which appears to be the worst-case scenario for Coupeville. The number of FLCP operations at OLF Coupeville is given

as 33,774. Fuel use is listed as 23,844,444 pounds, which translates to 3,511,700 gallons of fuel per year (fuel weighs 6.79 pounds per gallon).

That same page in the Appendix B also gives information on pollutants caused by Navy and associated personnel in daily vehicle commutes to and from Ault Field. This provides a convenient comparison to the equivalent impact of the Growler FCLP operations. For daily commutes they have assumed 4475 vehicles driving 25 miles on 250 days per year. Total miles driven is 27,968,750. Assuming an average of 25 miles per gallon, the commuters burn 1,118,750 gallons of fuel. This data can be used to calculate equivalent vehicle emissions for the Growlers.

First, consider the FCLP operations at OLF Coupeville under Alternative 1A. In terms of fuel burned, the Growlers would burn 3,511,700 gallons of fuel, which is 3.14 times as much as the 1,118,750 gallons of the commuters. So, the OLF Growler operations would be equivalent to 14,050 vehicles in terms of fuel burned (3.14 times 4475). This means that for Alternative 1A, Growler operations would be like having 14,050 vehicles traveling 25 miles around the Coupeville area for 250 days a year.

But that's only considering fuel burn. Jet fuel is different than automobile gasoline, and burned under different conditions. Appendix B gives information on the pollutants emitted by both Growlers and vehicles, so we can do a similar comparison as we did for fuel burn to find out how Growler emissions compare to vehicles.

Four pollutants are particularly important for Coupeville OLF operations: nitrogen oxides, sulfur dioxide, particulate matter, and carbon dioxide. As with fuel burn, we can calculate the equivalent number of vehicles it would take to match the Growler emissions.

Here are the results:

Pollutant	FCLP only at	NAS Complex
	Coupeville OLF	
	Equivalent Vehicles	Equivalent Vehicles
Nitrogen oxides	112,844	394,853
Sulfur dioxide	1,692,189	7,658,642
Particulate matter (PM2.5)	27,895	146,169
Carbon dioxide	15,554	68,134

Carbon monoxide	461	163,288
VOC ^a	3896	2,459,993
Particulate matter (PM10)	3090	16,024

^a Volatile organic compounds

These numbers are astounding, particularly when you consider that they are concentrated over a relatively small area surrounding the airfield, with operations up to five hours a day on as many as five days a week at Coupeville OLF.

Page 42 of Appendix B also includes data for the total NAS Whidbey Island Complex. Those results are also given above. Operations at Ault Field include other activities that produce large quantities of carbon monoxide and VOCs.

Carbon dioxide is a greenhouse gas and the subject of much concern in terms of climate change. Particulate matter is dangerous because it can get deep into the lungs. Sulfur dioxide and nitrogen oxide can also cause respiratory problems and contribute to acid rain. Nitrogen oxides are related to nutrient pollution in coastal waters.

Some might argue that it's not fair to compare the Growler pollutants to vehicles, since vehicles now emit very few pollutants. But that's the point. With great effort and expense we had reduced vehicle pollutants to a low level, which will be erased many times over on Whidbey Island by Growler operations.

These data are based entirely on the information given in Appendix B, page 42, of the Whidbey draft EIS, and can be easily verified.

- Appendix H -
 (Extension of Comment 11)
- List of DEIS Preparers -

From Chapter 8 of the DEIS, it is evident that none of the preparers of the DEIS possess medical credentials.

"The consulting firm responsible for the preparation of this document is: Ecology and Environment, Inc. 368 Pleasant View Drive Lancaster, New York 14086":

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**Citizens of Ebey's Reserve (COER) Comments:
Draft Environmental Impact Statement
for Naval Air Station Whidbey Island**

**Addendum 1:
Risks of Single-Siting EA18G Growlers at NASWI**

Prepared for COER by
[REDACTED]

On a visit to Washington D.C. and to the Pentagon by COER Board members in March 2014, Deputy Assistant Secretary Schregardus was asked about the Navy's one-site Growler policy. He was totally silent on the issue and did not answer our question. So, it is unclear why the Navy has concentrated its EW jet aircraft in one geographic location.

Single siting of any military function is a violation of the Technical Joint Cross Service Group (TJCSG) guidelines. TJCSG was formed in the wake of the Base Realignment and Closure Act of 1990 (BRAC) to make recommendations to optimize defense structure for cost and strategy. One of the TJCSG's two guiding principles was "Maintain competition of ideas by retaining at least two geographically separated sites, each of which would have similar combination of technologies and functions. This will also provide continuity of operations in the event of unexpected disruption (page 5)."

The Navy currently is in the position of holding the entire US military electronic warfare jet aviation asset of 82 Growlers in one vulnerable location. Per its 2016 Draft Environmental Impact Statement (DEIS), the Navy plans to add 35-36 more aircraft to NAS Whidbey, bringing the total number of Growlers to 118.

In the same DEIS, the Navy maintains this single siting decision is reviewed annually under the Chief of Naval Operations' Strategic Laydown and Dispersal plan, "...and is consistent with Navy aviation policy to maximize efficiency of operations by co-locating operational squadrons with support functions, training ranges, and airfields. (pages 2-13)" The reasons cited for the concentration of Growlers are operational synergy, proximity to training regions and airspace and efficient use of current infrastructure. Upon review of the references in the DEIS however, there is no citation of the Strategic Laydown and Dispersal Plan and no verification of the Navy's claim of review. The Navy's 2012 Environmental Assessment for the Prowler to Growler transition references the 2008 version of the plan as a rationale to homeport the expeditionary squadrons at Whidbey (pages 1-5). Unfortunately, neither the 2008 nor 2011 versions of the Strategic Laydown and Dispersal Plan are available publicly. Operational review of this single

siting decision therefore cannot be verified.

The Navy shows no signs of changing or mitigating the siting of Growlers on Whidbey Island even after its proposal in the current DEIS. Per the Selected Acquisition Report from the Department of Defense, the Navy plans to procure another 42 Growlers, bringing the total number of Growlers to 160 aircraft, nearly double the current fleet size. Less the 7 aircraft forward deployed to Japan, leaves 153 aircraft to be stationed at NAS Whidbey Island. This total number is not apparent in the DEIS and source documents had to be found outside of the DEIS.

This means that 96% of the entire US fleet of electronic warfare aircraft is based on a coastal island served by a bridge and two ferries, in a post-9/11 world where terrorist threats exist...and in one of the most seismic-prone areas in the continental United States.

Whidbey Island – Idyllic and Extremely Vulnerable

Whidbey Island, located at the northern part of Puget Sound is accessible from the North by the Deception Pass Bridge. The bridge, over 180 feet from the water, was built in 1935 by the Civilian Conservation Corps, and is on the National Register of Historic Places. The two-lane bridge encompasses two spans and is a total of 1,487 feet long, with an average daily traffic of between 17,000-20,000 vehicles. As Whidbey Island is served by an EPA designated sole-source aquifer, the Deception Pass Bridge also brings in a 24-inch water line that serves NAS Whidbey and the city of Oak Harbor. The Deception Pass Bridge lies on State Highway 20 and joins Whidbey Island to Fidalgo Island, its neighbor to the North. Fidalgo Island is then connected to the mainland by another bridge near LaConner, Washington. It is the only land-based access to Whidbey Island.

The only remaining way to access Whidbey Island is by its two ferry routes – from Port Townsend on the Peninsula to Coupeville in Central Whidbey, and from Mukilteo on the mainland to Clinton on South Whidbey. Outside these two ferry routes and the Deception Pass Bridge, there are no other ways for vehicles to access the Island.

These limited forms of access can serve as a choke point to limit egress from the Island in an emergency or prevent access of needed commodities or first responders. The 2007 Hazard Identification and Vulnerability Assessment from Island County confirms that Whidbey Island is "...vulnerable to several types of transportation emergencies including blocked bridges and interrupted ferry service". This make Whidbey Island vulnerable to potential terrorist attacks.

A US Naval Institute (USNI) article describes that single-siting all EW assets in the Pacific Northwest makes it difficult to provide proper cross-training, as "over half of the Army, Marine Corps, SOF and tactical Air Force units are in the eastern U.S. Additionally, DoD has a sizable investment in East Coast ranges that continue to be under-utilized for EW training." Siting new expeditionary Growlers on the East Coast would establish a geographic balance that is "consistent with long-term Navy policy." Col. Whitten, in this article, recommends the Pentagon take a look at regional benefits and site new Growlers at Marine Corps Air Station Cherry Point,

and not NAS Whidbey Island.

“Ironically, the increase in aircraft loading at NAS Whidbey Island has created an environmental impact even as the draw down in EA-6Bs at Marine Corps Air Station Cherry Point, NC, and delays in the F-35B deliveries are causing serious economic concerns. One would think North Carolina officials would see now is the time to put aside fears that questioning the EA-6B drawdown would somehow be viewed as threatening the F-35B. In fact, they should be making the case to homeport the Navy expeditionary EA-18Gs at MCAS Cherry Point.”

New Growlers Need a Second Site – East Coast Options

Single siting the entire electronic warfare jet arsenal on the West Coast, with one service, on an island served by a vulnerable bridge and ferries is an major operational security risk. This geographic location reduces operational readiness in a warfare strategy that right now has only one active aircraft with all services dependent upon it.

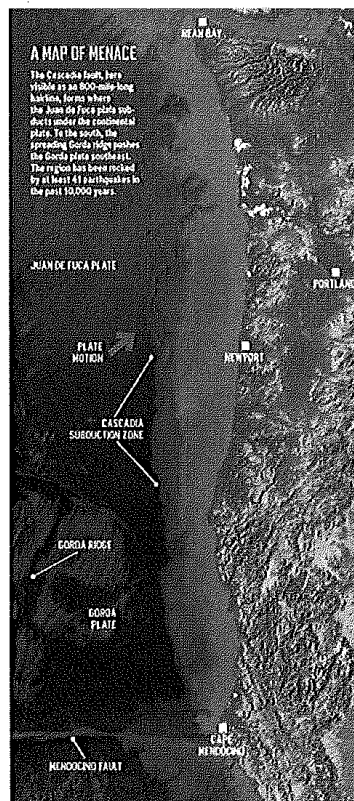
The delivery of 36 new Growler aircraft (plus 42 more on order) provides the Navy with a prime opportunity to site its EW assets at a more operationally beneficial location. This would not only reduce the environmental impact at NAS Whidbey (whose outlying field does not meet current standards for the aircraft), but would enhance operational security and readiness, and provide another community the economic benefit of a modest group of vital aircraft. MCAS Cherry Point,

North Carolina is a viable option as it has EW infrastructure from its time hosting the E/A-6B Prowler. There are also other options like Naval Air Station Kingsville, Texas, which has a low population density, updated outlying field, proximity to the East Coast and ready access to the Gulf Coast.

Creative solutions can and must be found to safeguard the Growler, which is a vital asset to US military defense. Loss of jet electronic warfare capability would paralyze all US (and Coalition) airborne missions. Redundancy is key in protecting this vital resource and is practiced with every other jet aircraft the Navy owns. Finding another base for new Growlers will be costly, but not nearly as costly as losing their fleet and entire infrastructure to a terrorist attack.

Earthquake & Tsunami Risk

Many articles have been written in the past few years, including one that generated a lot of comments in the *New Yorker* magazine about the ‘big one’ coming that would destroy whatever is west of I-5 in Washington State. Experts agree that it's not a matter of if, but when the Pacific Northwest is rocked by an enormous earthquake <



http://www.crew.org/sites/default/files/cascadia_subduction_scenario_2013.pdf > and <
http://cascadiageo.org/documentation/literature/cascadia_papers/johnson_etal_204_utsalady_pug_et_lowland.pdf >.

The "Cascadia Subduction Zone" is about the size of Maine. It's a geological copycat of the zone that ruptured in Japan. Experts believe 90 percent of the damage and 99 percent of the deaths in Japan were caused by the Tsunami.

"The consequences of Cascadia will be more than a city, they will be across a region that could potentially affect 10 million people," said DNR geologist Tim Walsh in a 2012 article by Michelle Esteban. Walsh says....

"a big quake will trigger landslides across the region, sheering homes right off their hillside perches.

Even the initial quake itself will feel like an eternity, nothing like the 2001 Nisqually quake that rocked Seattle. And that's most dangerous for tall buildings, long bridges and the above-ground pipelines that won't be able to survive the prolonged tremors."

Now imagine Deception Pass Bridge, which also carries the water pipeline from the Skagit River to Oak Harbor. The bridge and water pipeline will likely fall or be unsafe after an earthquake and it will likely be months before assistance can be provided.

Ault Field at NASWI in Oak Harbor is at Elevation AMSL – 47 ft/14m, and vulnerable to both earthquake and tsunami destruction. A tsunami could carve thru the Strait of Juan De Fuca, flooding everything from the Pacific to Bellingham, including rivers that connect to the ocean.

Isn't the risk potential of an earthquake that scientists agree is coming – worth considering when siting all of the Navy's EA18G Growler jets in harms way?

The loss could be devastating and extremely costly. If each jet costs about \$84M and only 2 can be made in a month in Missouri – this would seem to qualify as a major security risk, and speaks to the gravity of placing the entire fleet of EA18G Growlers in the path of a predicted major earthquake and tsunami event. In modeling of this event, Ault field will be inundated by water. When minutes and seconds count, will there be time to save these jets from destruction?

From an article by Chris Goldfinger, Oregon State University, that speaks to the Cascadian subduction zone and its capacity for generating giant earthquakes:

"The Cascadia subduction zone is a crack in the Earth's crust, roughly 60 miles offshore and running 800 miles from northern Vancouver Island to Northern California. This fault is part of the infamous Pacific Ring of Fire, the impact zone where several massive tectonic plates collide. Here, a slab of the Pacific Ocean floor called the Juan de Fuca plate slides eastward and downward, "subducting" underneath the continental plate of North America.

When any two plates grind against each and get stuck, enormous stress builds up until the rocks fracture and the fault rips apart in a giant earthquake. Two other segments of the Ring of Fire ruptured this way—Chile in 1960 at magnitude 9.5, the largest quake ever recorded on Earth, and Alaska’s horrible Good Friday earthquake of 1964, at 9.2 the strongest jolt ever to hit the continent of North America.

Cascadia, however, is classified as the quietest subduction zone in the world. Along the Cascadia segment, geologists could find no evidence of major quakes in “all of recorded history”—the 140 years since white settlers arrived in the Pacific Northwest and began keeping records. For reasons unknown, it appeared to be a special case. The system was thought to be aseismic—essentially quake free and harmless.

By the 1970s several competing theories emerged to explain Cascadia’s silence. One possibility was that the Juan de Fuca plate had shifted direction, spun slightly by movement of the two larger plates on either side of it. This would reduce the rate of eastward motion underneath North America and thus reduce the buildup of earthquake stress. Another possibility was that the angle of the down-going eastbound plate was too shallow to build up the kind of friction needed to cause major quakes.

But the third possibility was downright scary. In this interpretation, the silence along the fault was merely an ominous pause. It could be that these two great slabs of the Earth’s crust were jammed against each other and had been for a very long time—locked together by friction for hundreds of years, far longer than “all of recorded history.” If that were true, they would be building up the kind of stress and strain that only a monster earthquake could relieve.”

Evidence amassed suggests that in fact, “Cascadia has generated powerful earthquakes not just once or twice, but over and over again throughout geologic time. A research team led by [Chris Goldfinger](#) at Oregon State University (OSU) used core samples from the ocean floor along the fault to establish that there have been at least 41 Cascadia events in the last ten thousand years. Nineteen of those events ripped the fault from end to end, a “full margin rupture.”

Goldfinger continues,

“It turns out that Cascadia is virtually identical to the offshore faults that devastated Sumatra in 2004 and Japan in 2011—almost the same length, the same width, and with the same tectonic forces at work. Cascadia’s fault can and will generate the same kind of earthquake we saw in Japan: magnitude 9 or higher. It will send a train of deadly tsunami waves across the Pacific and crippling shock waves across a far wider geographic area than all the California quakes you’ve ever heard about.

Based on historical averages, the southern end of the fault—from Cape Mendocino, California, to Newport, Oregon—has a large earthquake every 240 years. For the northern end—from mid-Oregon to mid-Vancouver Island—the average “recurrence interval” is 480 years, according to a recent Canadian study. And while the north may have only half as many jolts, they tend to be full-size disasters in which the entire fault breaks from end to end.

With a time line of 41 events the science team at OSU has now calculated that the California–Oregon end of Cascadia’s fault has a 37 percent chance of producing a major earthquake in the next 50 years. The odds are 10 percent that an even larger quake will strike the upper end, in a full-margin rupture, within 50 years. Given that the last big quake was 312 years ago, one might argue that a very bad day on the Cascadia Subduction Zone is ominously overdue. It appears that three centuries of silence along the fault has been entirely misleading. The monster is only sleeping.”

Another article, “A Fault Runs Through It” by Bill Cannon reminds us that the Northwest is big-time earthquake country.

Brian Atwater, a U.S. Geological Survey (USGS) scientist and a UW affiliate professor of geological sciences, and USGS scientist Bob Bucknam explain a new fault line. They and colleagues provide a picture of a land-heaving earthquake along the newly discovered fault that may have occurred a thousand years ago.

“A strip of land about 10 miles long and four miles wide -- parts of West Seattle and Bainbridge Island -- rose from the Sound higher than 20 feet in some places, sending a giant wave rolling northward. In the same instant, old-growth forest around Lake Washington slid to a watery resting place.

They estimate the fault is within a few miles of the surface and was active as recently as 1,000 to 1,100 years ago. It follows the Bainbridge Island ferry route east under Puget Sound and the route of Interstate 90 toward, and possibly beyond, the Cascade Mountains.

The discovery was an alarm bell for engineers and emergency planners. This was a threat they had no idea existed: shallow earthquakes under a densely populated region. At magnitude 7 or greater, the tremors could shake the ground more than twice as fiercely as two mid-20th century earthquakes that rocked Washington.

“The big problem with this new hazard is that it occurs at ground zero, where 2.5 million people live,” says Craig Weaver, who coordinates the USGS earthquake hazards program in the Northwest. “This reminds us that the Northwest is big-time earthquake country.”

If, in fact, the Navy maintains this single siting decision is reviewed annually under the Chief of Naval Operations’ Strategic Laydown and Dispersal plan, this would be an ideal time to make

that review --- before the final EIS is written. As citizens, we see many reasons for review of the one-site DoD policy for stationing Growlers on Whidbey Island and enough risks associated with that placement to warrant serious investigation by military administrators.

U.S. Geological Survey Maps

The map above shows NWSTF Boardman and the area surrounding it. There are no faults nearby. The map to the left shows several faults that run through north Whidbey Island near NAS Whidbey as well as faults near OLF Coupeville.

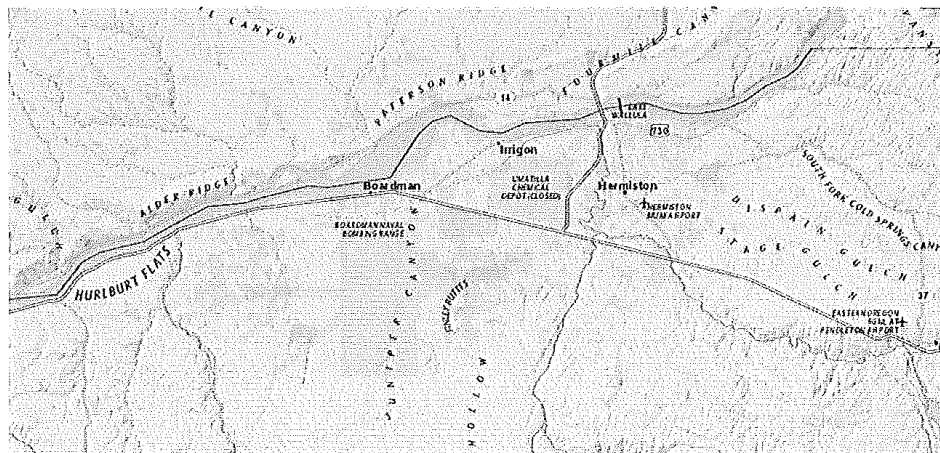
The map below shows a gold line that traces the Utsalady Point fault. Geologists believe that this fault was active twice within the last 2,200 years, that the earthquakes were magnitude 6.7 or greater, and may have produced tsunamis. Four tsunami deposits have been found in the Swantown Marsh on Whidbey Island, all of which occurred between 2200 and 1100 years ago, coinciding with the earlier of the two earthquakes on the Utsalady Point fault. Geologists consider the Puget Lowland to be a complex, tectonically active region.

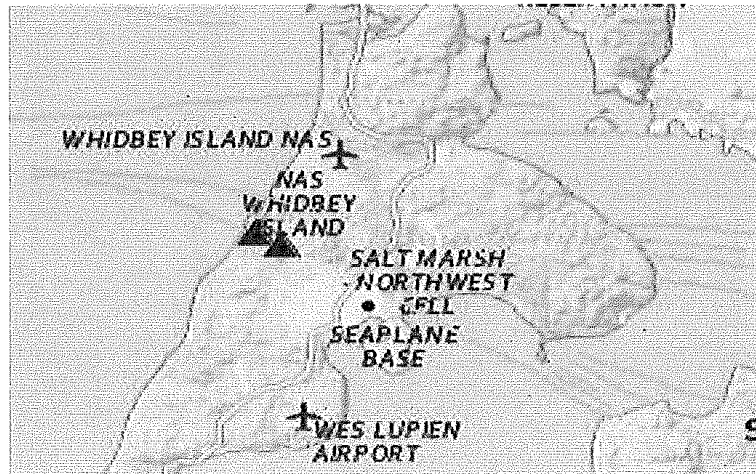
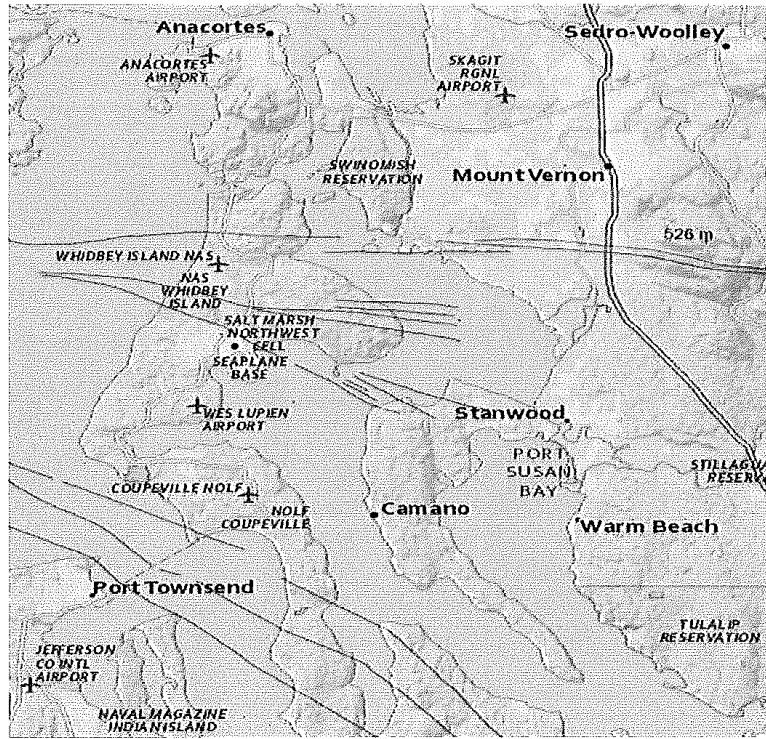
From:

<http://earthquake.usgs.gov/earthquakes/eventpage/uw61251016#map>

http://cascadiageo.org/documentation/literature/cascadia_papers/johnson_etal_204_utsalady_puget_lowland.pdf

Maps Showing North Whidbey Island Earthquake Faults and No Faults in the Boardman Oregon Area





**Citizens of Ebey's Reserve (COER) Comments:
Draft Environmental Impact Statement
for Naval Air Station Whidbey Island**

**Addendum 2:
Noise Impacts of Growler Operations on Health**

Prepared for COER by
██████████, M.S., Audiologist

This Addendum to COER Comments on the draft Environmental Impact Statement (DEIS) addresses inaccuracies, deficiencies, and misunderstandings regarding the audiological and non-audiological impacts on human health anticipated under the no-action and action scenarios of the DEIS. The inadequacies are probably in large part due to the lack of human health expertise among the preparers of the DEIS (see full list in Appendix A). Of those 25 preparers, none had medical credentials, the closest ones having biological degrees at the bachelors or masters levels:

- B.S. in Laboratory Animal Science (#1 on the list),
- B.A. in Biology and B.S. Laboratory Animal Science (#2),
- B.S. Entomology and M.S. Biology (#6),
- B.A in Marine Biology (#9 and 13),
- B.A. in Biology (#16).

The analysis presented herein augments Dr. James Dahlgren's¹ separate analysis for COER of shortcomings of the DEIS as related to the impacts of Growler noise on human health. Red text denotes quotations from the DEIS.

New areas that were not previously within the 65 dB DNL noise contour generated by Navy aircraft operations under the No Action Alternative would be under the 65 dB DNL noise contour associated with the action alternatives. Although some of these areas are over water, others are over land and would therefore result in some additional people living within the 65 dB DNL noise contour.

Other supplemental metrics utilized in the analysis show additional events of indoor and outdoor speech interference, an increase in the number of events causing classroom/learning interference, an increase in the probability of awakening, and an increase in the population that may be vulnerable to experiencing potential hearing loss of 5 dB or more.

Noise contours produced by the model allow a comparison of existing conditions and proposed changes or alternative actions that do not currently exist or operate at the installation. For these reasons, on-site noise monitoring is seldom used at military air installations, especially when the aircraft mix and operational tempo are not uniform.

¹ Medical Diplomate of the American Board of Internal Medicine, Occupational and Environmental Medicine; Toxicology; UCLA.

Other supplemental metrics utilize in the analysis show addition events of indoor and outdoor speech interference, and increase in the number of events causing classroom/learning interference, an increase in the probability of awakening, and an increase in the population that may be vulnerable to experiencing potential hearing loss of 5dB or more. (Draft EIS, Nov. 2016, page 4-20.)

The EPA: recommends a limit of 55dB /24 hrs., with nighttime weighed more heavily due to sleep disturbance. Western Europe understands better than US the effects of noise. The most recent studies are almost 40 yrs. old. How much noise exposure is safe without consequences is unknown, but clearly has serious risk factors for health.

The World health Organization (WHO) has documented seven categories of adverse health and social effects of noise pollution, whether occupational, social or environmental. These sever are:

- 1.hearing impairment
- 2.interference with spoken communication
- 3.cardiovascular disturbances
- 4.mental health problems
- 6.impaired cognition
- 7.negative social behaviors and sleep disturbance

The latter is considered the most deleterious non-auditory effect because of its impact on quality of life and daytime performance.

Environmental noise, especially that caused by transportation means, is a growing problem in our modern cities . It is considered a major cause of exogenous sleep disturbances, after somatic problems and day tensions. Nocturnal air traffic causes nocturnal awakenings at levels as low as 48 dB, and physiological reactions in the form of increased vegetative hormonal secretions, cortical arousals and body movements at even lower levels, probably around 33 dB, and interestingly some epidemiological data support the hypothesis that exposure to noise at night time may be especially relevant in terms of negative cardiovascular outcomes, perhaps due to the fact that repeated autonomic arousals habituate to a much lesser degree to noise than cortical arousals. Indeed data show that exposure to traffic noise especially at night increases the risk for hypertension, also in children, as well as the risk for heart disease and stroke (Environmental noise and sleep disturbances: A threat to health? Demian Halperinn Department of Psychiatry, Barzilai Medical Center, Haistadrut Street 2, Ashkelon 78278, Israel November, 2014)

Noise exposure also affects the endocrine system (Deepak Prasher prof at Univ. College in London).

All research articles addressing sleep disturbance due to noise pollution indicate that there is a significant domino effect on health impacts, quality of life and the economy.

Under Alternative 1, the majority of the POIs analyzed show an increase in the percent probability of awakening for all scenarios during nights of average aircraft activity. The highest percent increase is for R06 (Admirals Drive and Byrd Drive), where there would be an increase of 48 percent under Scenario A with windows open, meaning that there is a 48-percent greater probability, or chance of awakening at least once under windows-open conditions compared to the No Action Alternative. Generally, the POIs around OLF Coupeville had a higher percent probability of awakening under Scenario A than under Scenarios B or C, and for the POIs around Ault Field, there was a larger increase in the percent probability of awakening for Scenario C than Scenarios A or B. (DEIS, November 2015, p4-42)

Also see Table 4.2-6 , page 4-43

Average Indoor Nightly Probability of Awakening for Representative Points of Interest in the vicinity of the NAS Whidbey Island Complex, Alternative 1 (Average Year) This table states that in Central Whidbey under No Action Alternative with the **windows open** there is a probability of awakening 21% which would change to 29% (scenario A) to 36% (scenario B) and 41% (scenario C.) With the **windows closed** there is no change under the no action alternative, 14% (scenario A) 17% (scenario B) 20% (Scenario C.)

There is obviously an increase in the number of sleep disturbances that Central Whidbey will be experiencing. The increase is significant both economically and health wise. Particularly since NASW insists that they need the inadequate OLFC for night time practice, despite the large increase in the population and light pollution since 1942 surrounding OLFC. Noise pollution decreases the efficiency of people, decreases concentration, increases fatigue and those exposed constantly to loud noise increases anxiety.

A -5dB decrease reduce HBP by 1.4%, cardio disease by 1.8% Economic benefit estimated at 3.9 billion. Among women chronic exposure increases risk of cardiovascular mortality by 80%.(American Journal of Preventative Medicine, May 25, 2015)

Noise-induced sleep disturbance constitutes an important mechanism on the pathway from chronic noise exposure to the development of adverse health effects. The results call for more initiatives aimed at reducing environmental noise exposure levels to promote cardiovascular and public health. Recent studies indicate that people's attitude and awareness in particular towards aircraft noise has changed over the years. Noise mitigation policies have to consider the medical implications of environmental noise exposure. Noise mitigation strategies to improve public health include noise reduction at the source, active noise control (e.g. noise-optimized take-off and approach procedures), optimized traffic operations (including traffic curfews), better infrastructural planning, better sound insulation in situations where other options are not feasible, and adequate limit values. (Cardiovascular effects of environmental noise exposure Thomas Münzel,¹*Tommaso Gori,¹ Wolfgang Babisch,² and Mathias Basner³ Eur Heart J. 2014 Apr 1; 35(13): 829–836. doi: 10.1093/eurheartj/ehu030)

The aim of enlightened governmental controls should be to protect citizens from the adverse effects of airborne pollution, including those produced by noise. **People have the right to choose the nature of their acoustical environment; it should not be imposed by others.**

Cardiovascular Disturbances

A growing body of evidence confirms that noise pollution has both temporary and permanent effects on humans (and other mammals) by way of the endocrine and autonomic nervous systems. It has been postulated that noise acts as a nonspecific biologic stressor eliciting reactions that prepare the body for a fight or flight response. For this reason, noise can trigger both endocrine and autonomic nervous system responses that affect the cardiovascular system and thus may be a risk factor for cardiovascular disease. These effects begin to be seen with long-term daily exposure to noise levels above 65 dB or with acute exposure to noise levels above 80 to 85 dB. Acute exposure to noise activates nervous and hormonal responses, leading to temporary increases in blood pressure, heart rate, and vasoconstriction. Studies of individuals exposed to occupational or environmental noise show that exposure of sufficient intensity and duration increases heart rate and peripheral resistance, increases blood pressure, increases blood viscosity and levels of blood lipids, causes shifts in electrolytes, and increases levels of epinephrine, norepinephrine, and cortisol.^[3] Sudden unexpected noise evokes reflex responses as well. Cardiovascular disturbances are independent of sleep disturbances; noise that does not interfere with the sleep of subjects may still provoke autonomic responses and secretion of epinephrine, norepinephrine, and cortisol.^[29] These responses suggest that one can never completely get used to night-time noise.

Temporary noise exposure produces readily reversible physiologic changes. However, noise exposure of sufficient intensity, duration, and unpredictability provokes changes that may not be so readily reversible. The studies that have been done on the effects of environmental noise have shown an association between noise exposure and subsequent cardiovascular disease. *Even though the increased risk for noise-induced cardiovascular disease may be small, it assumes public health importance because both the number of people at risk and the noise to which they are exposed continue to increase. Children are at risk as well. Children who live in noisy environments have been shown to have elevated blood pressures and elevated levels of stress-induced hormones.*

(Italics are added)

(Noise Pollution: A Modern Plague, Lisa Goines, RN; Louis Hagler, MD)

More recent studies have suggested that noise levels of 50 dB(A) at night may also increase the risk of myocardial infarction by chronically elevating cortisol production.

Results suggest associations between community exposure to aircraft noise and the health indicators poor general health status, use of sleep medication, and use of medication for cardiovascular diseases.

(Aircraft noise around a large international airport and its impact on general health and medication use;

E Franssen, C M A G van Wiechen, N Nagelkerke, and E Lebrecht, May 2004)

Sleep deprivation can lead to: Accidental Death, Impaired Brain Activity, Cognitive dysfunction, Memory problems, moodiness, hallucinations, depression, accident prone, weakened immune response, weight gain, HBP, Type 2 Diabetes, heart disease.

During sleep, the brain rests busy neurons and forms new pathways so you're ready to face the world in the morning. In children and young adults, the brain releases growth hormones during sleep. While you're sleeping, your body is also producing proteins that help cells repair damage. (Written by Ann Pietrangelo Medically Reviewed by George Krucik, MD, MBA on August 19, 2014)

According to the Mayo Clinic, studies show that if you don't get enough sleep, it's more likely that your body won't be able to fend off invaders. It may also take you longer to recover from illness. Long-term sleep deprivation raises your risk of developing chronic illnesses like diabetes and cardiovascular diseases. (Ann Pietrangelo, August 19, 2014) In addition exposure of about 100dB has lead to significant reduction in testosterone levels in male rodents.

Additional studies are now reporting that jet fuel may impact central nervous system difficulties and may be a contributor to central nervous system hearing loss.

Jet propulsion fuel-8 (JP-8) is a kerosene-based fuel that is used in military jets. The U.S. Armed Services and North Atlantic Treaty Organization countries adopted JP-8 as a standard fuel source and the U.S. military alone consumes more than 2.5 billion gallons annually. Preliminary epidemiologic data suggested that JP-8 may interact with noise to induce hearing loss, and animal studies revealed damage to presynaptic sensory cells in the cochlea. In the current study, Long-Evans rats were divided into four experimental groups: control, noise only, JP-8 only, and JP-8 + noise. A sub-ototoxic level of JP-8 was used alone or in combination with a non-damaging level of noise. Functional and structural assays of the presynaptic sensory cells combined with neurophysiologic studies of the cochlear nerve revealed that peripheral auditory function was not affected by individual exposures and there was no effect when the exposures were combined. However, the central auditory nervous system exhibited impaired brainstem encoding of stimulus intensity. These findings may represent important and major shifts in the theoretical framework that governs current understanding of jet fuel and/or jet fuel + noise-induced ototoxicity. From an epidemiologic perspective, results indicate that jet fuel exposure may exert consequences on auditory function that may be more widespread and insidious than what was

previously shown. It is possible that a large population of military personnel who are suffering from the effects of jet fuel exposure may be misidentified because they would exhibit normal hearing thresholds but harbor a "hidden" brainstem dysfunction.

(J Toxicol Environ Health A, 2014;77(5):261-80.)

(Exposure to low levels of jet-propulsion fuel impairs brainstem encoding of stimulus intensity.

Guthrie OW1, Xu H, Wong BA, McInturf SM, Reboulet JE, Ortiz PA, DR.)

Importantly, the US Department of Veterans Affairs' Office of Research and Development considers this study as one of their major accomplishments in their research on hearing loss.

The Effect of Loud Noises on the Fetus

Continuous exposure to sounds over about 90 to 100 decibels, about the level of a chainsaw, can raise your unborn baby's risk of hearing loss, according to What to Expect. It also can increase the chances of giving birth prematurely and of having a low-birth weight baby. Shorter occasional exposure to sounds in the 150 to 155 decibel range, the level next to a jet engine, can lead to similar problems. A sudden loud noise also can startle an unborn baby, causing increased activity shortly after the fetus hears the sound. (livestrong.com)

Thus, understanding of occupational and environmental noise is important for public health.

In one study, 12 children with high-frequency hearing loss tested at 4 to 10 years of age were more likely to have been born to women who were exposed consistently to occupational noise in the range of 85 to 95 dB during pregnancy. (Lalande NM, Hetu R, Lambert J. Is occupational noise exposure during pregnancy a risk factor of damage to the auditory system of the fetus? *Am J Ind Med*. 1986;10:427-435)

There are further effects of birth outcomes and although the maternal abdomen and uterus filter out most high-frequency sounds and lessen dB levels, preterm infants in the neonatal intensive care unit (NICU) have no such protection. While in the NICU, the preterm infant is fully exposed to a broad range of sound frequencies (high and low) at dB levels that may be unsafe. (SAFE SOUND EXPOSURE IN THE FETUS AND PRETERM INFANT, Charlene Krueger, Associate professor, Elan Horesh, Pre-med student, and Brian Adam Crosland, Pre-med student)

In addition the "deafening" music used Abu Gharib prison in 2003 is considered **"no touch" torture considered to be a violation of basic human rights.** (Torture Methods with Sound: How pure noise can be used to break you psychologically; Justin Caba 1/20/2015 Medical Daily)

There is also evidence that noise pollution and air pollution go hand in hand, fine particle air pollution and noise pollution increase risk through similar biologic pathways imbalance in autonomic nervous system, can cause thoracic aortic calcification (Study presented at the American Thoracic Society International Conference May 17-22, 2013 Philadelphia, Pennsylvania)

During sleep, the brain rests busy neurons and forms new pathways so you're ready to face the world in the morning. In children and young adults, the brain releases growth hormones during sleep. While you're sleeping, your body is also producing proteins that help cells repair damage.(Written by Ann Pietrangelo Medically Reviewed by George Krucik, MD, MBA on August 19, 2014)

Gastrointestinal Difficulties

There are increasing evidences for gastrointestinal motility disorder (GIMD) and gastric stress ulcer induced by noise stress. The present study was to investigate the reversed effect of melatonin on GIMD and gastric stress ulcer induced by noise stress and potential mechanism.

Moreover, the levels of cortisol, motilin and malondialdehyde in blood plasma and malondialdehyde in gastric mucosa homogenate were increased by noise stress ($P < 0.05$). CGRP and superoxide dismutase activity in both of blood plasma and gastric mucosa homogenate were significantly decreased ($P < 0.05$). Furthermore, melatonin reversed changes in GRR, SPR, pathological examination, Guth injury score, cortisol, motilin, CGRP, superoxide dismutase activity and malondialdehyde ($P < 0.05$). (Melatonin Attenuates Noise Stress-induced Gastrointestinal Motility Disorder and Gastric Stress Ulcer: Role of Gastrointestinal Hormones and Oxidative Stress in Rats
Lei Zhang,1,2,3 Ji T Gong,4 Hu Q Zhang,5 Quan H Song,2 Guang H Xu,3 Lei Cai,3 Xiao D Tang,2 Hai F Zhang,1 Fang-E Liu,1,* Zhan S Jia,6,* and Hong W Zhang3, *J Neurogastroenterol Motil.* 2015 Apr; 21(2): 189–199.)

Raised cortisol levels, which occur due to the significant stress, most people experience from the anticipation and actual noise emitted by the Growlers have a significant impact on our digestive system.

When the brain feels severely stressed, it unleashes a cascade of hormones that can put the whole digestive system in an uproar. The hormones have different and sometimes contradictory jobs. For example, the hormone CRH (short for corticotropin-releasing hormone) is one of the body's main alarm bells. In stressful situations, the brain pumps out CRH to tell the adrenal gland to start making steroids and adrenaline, chemicals that can give you the strength and energy to run or fight your way out of trouble.

This stress, despite our different responses to stress, affects: irritable bowel syndrome, indigestion, heartburn, ulcerative colitis, and Crohn's disease.

The National Institutes of Health estimates that as many as one in five Americans has some signs of IBS. (Stress and the Digestive System, Chris Woolston, M.S.)

Disturbances in Mental Health

Noise pollution is not believed to be a cause of mental illness, **but** it is assumed to accelerate and intensify the development of latent mental disorders. Noise pollution may cause or contribute to the following adverse effects: anxiety, stress, nervousness, nausea, headache, emotional instability, argumentativeness, sexual impotence, changes in mood, increase in social conflicts, neurosis, hysteria, and psychosis. Population studies have suggested associations between noise and mental-health indicators, such as rating of well-being, symptom profiles, the use of psychoactive drugs and sleeping pills, and mental hospital admission rates. *Children, the elderly, and those with underlying depression may be particularly vulnerable to these effects because they may lack adequate coping mechanisms. Children in noisy environments find the noise annoying and report a diminished quality of life.*

Noise levels above 80 dB are associated with both an increase in aggressive behavior and a decrease in behavior helpful to others. The news media regularly report violent behavior arising out of disputes over noise; in many cases these disputes ended in injury or death. The aforementioned effects of noise may help explain some of the dehumanization seen in the modern, congested, and noisy urban environment.

Impaired Task Performance

The effects of noise pollution on cognitive task performance have been well studied. Noise pollution impairs task performance at school and at work, increases errors, and decreases motivation. *Reading attention, problem solving, and memory are most strongly affected by noise.* Two types of memory deficits have been identified under experimental conditions: recall of subject content and recall of incidental details. Both are adversely influenced by noise. Deficits in performance can lead to errors and accidents, both of which have health and economic consequences.

Cognitive and language development and reading achievement are diminished in noisy homes, even though the children's schools may be no noisier than average. Cognitive development is impaired when homes or schools are near sources of noise such as highways and airports. Noise affects learning, reading, problem solving, motivation, school performance, and social and emotional development. These findings suggest that more attention needs to be paid to the effects of noise on the ability of children to learn and on the nature of the learning environment, both in school and at home. Moreover, there is concern that high

and continuous environmental noise may contribute to feelings of helplessness in children. Noise produces negative after-effects on performance, particularly in children. It appears that the longer the exposure, the greater the effect. Children from noisy areas have been found to have heightened sympathetic arousal indicated by increased levels of stress-related hormones and elevated resting blood pressure. These changes were larger in children with lower academic achievement. As a whole, these findings suggest that schools and daycare centers should be located in areas that are as noise-free as possible.

(Noise Pollution: A Modern Plague Lisa Goines, RN; Louis Hagler, MD
Southern Medical Journal 2007;100(3):287-294. ©2007 Lippincott Williams & Wilkins)

The DEIS (page 4-42) states:

The potential for classroom interference from single aircraft events generating sound levels inside classrooms greater than 50 dB Lmax would increase under Alternative 1 by up to two events per hour (at S01, S02, and S03) compared to the No Action Alternative; that is, on average, no school would experience an increase of more than two learning-disrupting events per hour under any scenario under Alternative 1 compared to the No Action Alternative. Oak Harbor High School (S01) and Crescent Harbor Elementary School (S02) under Scenarios B and C (with windows open) and **Coupeville Elementary (S03) under Scenario A (with windows closed) show the highest increase of classroom/learning interference, at an additional two events per hour.** All other schools either show no change from the No Action Alternative or an increase of one event per hour during the school day, primarily under the windows open condition. Under the windows-closed condition, nearly all of the schools would be expected to experience more than one additional event per hour of classroom/learning interference, with most being unchanged from the No Action Alternative. **Many modern schools have central air conditioning and heating systems; therefore, it is more likely that classroom windows would remain closed the majority of the time.**

Actually this presumption of air conditioning does not apply to Coupeville or Oak Harbor schools and windows are open. Additionally on page 4-37, this:

Because the individual is assumed to be indoors for this analysis, noise level reduction factors were applied because the walls, doors, insulation, and other building features reduce the noise levels inside.

Furthermore, an increase of "...of three events per hour (S03) [or any school] ..." (DEIS, 4-44) is not trivial, nor is "increase" what needs to be evaluated, rather it is the absolute number of interruptions. At 35,100 FCLPs there are 96 operations for each day in the year or 48 flyovers/day (98/2) equating to noise interruptions. FCLPs are normally conducted on weekdays (261/year), so that means there would be 134 operations per weekday (35,000/261) or school day or 67 flyovers, if evenly distributed across all weekdays. At that 67 per weekday even rate, there would be a flyover of $67/24 = 2.8$ flyovers/hour. But because those flyovers are not distributed over 24 hours, but over something closer to a 12 hour day (noon to midnight), on a generalized average there

would be 5.6 flyovers each school day. CORE Comment #12 addresses this problem from another way of looking at the impacts.

The Coupeville Elementary School, which is listed as a point of interest in the DEIS, was built in 1990 and is not considered to be a "modern" school. It has no air conditioning and during warmer weather the windows in almost all classrooms are open. So the assumption that classroom windows are closed most of the time is just that: an assumption. Coupeville Middle and High Schools are not even considered as a point of interest in the DEIS. Therefor possibly subjecting school children (whose hearing is considered to be part of the "sensitive" population) to possible hearing loss as stated in the DEIS (p.4-20):

Other supplemental metrics utilized in the analysis show additional events of indoor and outdoor speech interference, an increase in the number of events causing classroom/learning interference, an increase in the probability of awakening, and an increase in the population that may be vulnerable to experiencing potential hearing loss of 5 dB or more.

Yet on pg.4-45 they contradict this: "*The available literature on the subject of permanent threshold shifts and aircraft noise exposure indicates that exposure to military aviation noise has not resulted in permanent threshold shifts, even in sensitive populations such as children.*" So which is it? The contradictions in the DEIS are there to obviously confuse the reader.

A major effect of noise and poor acoustics in the classroom is the reduction of speech intelligibility. If children are unable to understand the teacher then the major function of a classroom in providing an environment that enables the transfer of information from teacher to pupil is impaired. Hearing, unlike sight and other senses, is not unidirectional. We hear what is all around us, 360 degrees, keeping us in touch with our environment as no other sense does.

It "is important, both for learning and for social interaction, that children are able to hear and understand their peers in the classroom." (Shield B. M. & Dockrell J. E. External and internal noise surveys of London primary schools, Journal of the Acoustical Society of America. 2004, 115(2), 730-738.)

Another study found that chronic exposure to aircraft noise "was associated with a significant impairment in reading comprehension.

A 5-decibel difference in aircraft noise was equivalent to a 2-month reading delay in the United Kingdom and a 1-month delay in the Netherlands" (Stansfeld et al., 2005, p. 1946). This outcome was consistent with findings from other studies on the effects of aircraft noise on reading comprehension. Because it was a cross-sectional study, the effect of long-term noise exposure to aircraft noise could not be measured. Socioeconomic status was not found to be a factor in the size of the effect, a finding that differs from findings of other studies. The study also

found that aircraft noise was “not associated with impairment in working memory, prospective memory, or sustained attention” (Stansfeld et al., 2005, p. 1946).

Stansfeld et al. (2005) also looked at the effect of traffic noise on the children. The authors noted linear exposure-effect associations between exposure to road traffic noise and increased functioning of episodic memory, in regard to information and conceptual recall (Stansfeld et al., 2005, p. 1947).

Further:

Concerning chronic effects, despite inconsistencies within and across studies, the available evidence indicates that enduring exposure to environmental noise may affect children's cognitive development. Even though the reported effects are usually small in magnitude, they have to be taken seriously in view of possible long-term effects and the accumulation of risk factors in noise-exposed children (Evans, 2004). Obviously, the findings reported in this review have practical implications for the acoustical design of schools, for the placement of schools in the vicinity of airports, and for the policy of noise abatement. (Does noise affect learning? A short review on noise effects on cognitive performance in children Maria Klatte,* Kirstin Bergström, and Thomas Lachmann, August 2013)

Children often participate in recreational activities that can harm hearing. These activities include attending music concerts and sporting events, reworks, playing with noisy toys and video games, and listening to personal music players and persistent jet noise is no exception. Because of excessive exposure to noise, an estimated 5 million children suffer from Noise Induced Hearing Loss (NIHL). In addition, noise exposure can harm a child's physical and psychological health. Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior. For example, directly from the EPA (Environmental Protection Agency) noise can:

INTERFERE WITH SPEECH AND LANGUAGE. Repeated exposure to noise during critical periods of development may affect a child's acquisition of speech, language, and language-related skills, such as reading and listening.
IMPAIR LEARNING. The inability to concentrate in a noisy environment can affect a child's capacity to learn.

IMPAIR HEARING. Tinnitus, often described as a ringing or buzzing sound in the ear, is a symptom associated with many forms of hearing loss. (United States Environmental Protection Agency | Office of Air and Radiation | Washington, D.C. 20460 EPA-410-F-09-003 | www.epa.gov/air/noise.html | November 2009)

Here is a list of additional Studies regarding the effects of noise on learning.

- Preschoolers in daycare centers located near elevated trains in New York City did poorer on psychomotor skills than their counterparts in quieter neighborhoods did. (Hambrick-Dixon, *Developmental Psychology*, 1985)
- Older students who attended schools near major New York airports had lower reading scores than children in schools located further from the airports did. (Green & Shore, *Archives of Environmental Health*, 1982)
- Children living near noisy highways in Los Angeles had lower reading scores and children living near a major airport there had more difficulty solving cognitive problems. (Cohen, Glass and Singer, *Journal of Experimental and Social Psychology*, 1973 and 1980)
- In one New York City school, a study focused on students in grades two, four, and six. Half of the classes at each grade level were in classrooms adjacent to train tracks; the other half of the classes were on the quieter side of the building. The study showed that the reading levels of the students on the noisy side of the building were behind the reading levels of their peers on the quiet side of the building. The sixth graders on the noisy side of the building averaged as much as one year behind in reading. (Bronzaft & McCarthy, *Environment and Behavior*, 1975) Then rubber pads were installed on the nearby train tracks and acoustic ceiling tiles were installed on ceilings of the noisiest classrooms. Those noise-abatement measures cut the noise levels in the noisy classrooms by as much as eight decibels. (Noise levels are cut in half for every ten-decibel decrease in measured sound.) A two-year study following the installation of the rubber pads and acoustic tiles showed no differences in reading levels between classes on the two sides of the building. (Bronzaft, *Journal of Environmental Psychology*, 1981)
- A study of seventh and tenth graders found that the high-academic students were not affected by nearby airport noise while lower-achieving students were affected. (Maser, Sorensen, Kryter & Lukas, Western Psychological Association Conference, 1978)
- Noise is more bothersome in crowded classrooms; teachers in those classrooms might resort to quieter, less effective teaching methods because of the conditions. (Gifford, *Environmental Psychology*, Allyn and Bacon, Inc., 1987)
- Language and cognitive skills develop more slowly in children raised in noisy homes. Possible reason: Parents in noisy homes interact less often with their children. (Wachs, American Psychological Association Conference, 1982)

It is important to note that the effects of noise pollution may not have an immediate effect but may be noticed many years later and limiting a child's possible potential.

Obviously there is enough research to indicate that the DEIS underestimates the effects of noise on children's learning. Additionally the DEIS appears to ignore effects of impact (sudden) noise.

Potential Hearing Loss

The DEIS on page 4-45 and 46 states:

The available literature on the subject of permanent threshold shifts and aircraft noise exposure indicates that exposure to military aviation noise has not resulted in permanent threshold shifts, even in sensitive populations such as children. The 1982 U.S. EPA Guidelines for Noise Impact Analysis provides that people who experience continuous, daily exposure to high noise over a normal working lifetime of 40 years, with exposure lasting 8 hours per day for 5 days per week, beginning at an age of 20 years old, may be at risk for a type of hearing loss called Noise Induced Permanent Threshold Shift (NIPTS)... Additionally, the report found that there were no major differences in audiometric test results between military personnel who, as children, had lived on or near installations where jet aircraft operations were based and military personnel who, as children, had no such exposure (Ludlow and Sixsmith, 1999; ACRP 2008).

...To put the conservative nature of this analysis into context, the national average of time spent indoors is approximately 87 percent (or almost 21 hours of the day) (Klepeis et al., n.d.). With intermittent aircraft operations and the time most people spend indoors, it is very unlikely that individuals would experience noise exposure that would result in hearing loss. In fact, it is highly unlikely for an individual living around Ault Field or OLF Coupeville to meet all of the criteria upon which the Potential Hearing Loss (PHL) metric is based.

The EA-18G Growler began production in 2007 and entered operational service in late 2009. (Wikipedia).² To use studies not based on the Growler and using conveniently old research from 1982, 1999 and 2008 is not using the effects of the actual noise emitted by the EA-18G Growler. In addition it also ignores the unique life style of citizens living in central Whidbey, many of whom are farmers, gardeners, those that have "outdoor jobs" and susceptible children that play outdoors and at the outdoor sports and activity fields. In addition, the statement " no major differences in audiometric test result between military personnel who, as children, had lived....." totally ignores the effects of noise on hearing loss, tinnitus, possible cardiovascular diseases, and the significant increase in compensation for hearing loss and tinnitus for veterans, and other health effects, by sighting outdated studies.

The following study is more pertinent regarding an increase in cardiovascular health risks.

Objective To investigate whether exposure to aircraft noise increases the risk of hospitalization for cardiovascular diseases in older people (≥65 years) residing near airports.

² The EA-18G Growler is an American carrier-based electronic warfare aircraft, a specialized version of the two-seat F/A-18F Super Hornet. The EA-18G replaced the Northrop Grumman EA-6B Prowlers in service with the United States Navy. The Growler's electronic warfare capability is primarily provided by Northrop Grumman.

Design Multi-airport retrospective study of approximately 6 million older people residing near airports in the United States. We superimposed contours of aircraft noise levels (in decibels, dB) for 89 airports for 2009 provided by the US Federal Aviation Administration on census block resolution population data to construct two exposure metrics applicable to zip code resolution health insurance data: population weighted noise within each zip code, and 90th percentile of noise among populated census blocks within each zip code.

Setting 2218 zip codes surrounding 89 airports in the contiguous states.

Participants 6 027 363 people eligible to participate in the national medical insurance (Medicare) program (aged ≥65 years) residing near airports in 2009.

Main outcome measures Percentage increase in the hospitalization admission rate for cardiovascular disease associated with a 10 dB increase in aircraft noise, for each airport and on average across airports adjusted by individual level characteristics (age, sex, race), zip code level socioeconomic status and demographics, zip code level air pollution (fine particulate matter and ozone), and roadway density.

Results Averaged across all airports and using the 90th percentile noise exposure metric, a zip code with 10 dB higher noise exposure had a 3.5% higher (95% confidence interval 0.2% to 7.0%) cardiovascular hospital admission rate, after controlling for covariates.

Conclusions Despite limitations related to potential misclassification of exposure, we found a statistically significant association between exposure to aircraft noise and risk of hospitalization for cardiovascular diseases among older people living near airports. (Residential exposure to aircraft noise and hospital admissions for cardiovascular diseases: multi-airport retrospective study Andrew W Correia, quantitative analyst, Junenette L Peters, assistant professor, Jonathan I Levy, professor, Steven Melly, geographic information systems specialist, and Francesca Dominici, professor, associate dean of information technology; BMJ. 2013; 347: f5561.)

As of 8/2012, a visit to the National Library of Medicine's search engine, Pubmed, revealed 6260 research articles concerning noise induced hearing loss published since 1951. At the (American Hearing Research Foundation (AHRF.) It appears obvious that the DEIS and the Wylie report have chosen only those articles that seem to support their outdated assumption based primary on computer modeling rather than actual sound measurement at and around OLFC.

It is ludicrous to state that it would take "daily exposure to high noise over a normal working lifetime of 40 years, with exposure lasting 8 hours per day for 5 days per week..." to be at risk for a permanent hearing loss. The cochlea can be easily damaged

by loud blasts and ignores the Navy's own conclusions and ignores impulse (impact) noise. To quote:

"The Navy considers any sound above 84dB as noise hazardous, or having the potential to cause hearing loss. Prolonged not at levels greater than 84dB over an 8 hour period may result in temporary, and gradually permanent, hearing loss." "Hearing loss may result in diminished quality of life because of loss of ability to communicate and social isolation, as well as impaired and misinterpreted communication with family members, the public, and co-workers." The economic effects of hearing loss to the Navy include lost time and decreased productivity, loss of qualified workers through medical disqualification, civilian workers' compensation costs, and military disability settlements, retraining, and expenses related to medical intervention such as hearing aids and audiometric testing. On aircraft carrier flight decks, flight operations are confined to a 4.5-acre area as compared to land-based flight operations that are normally conducted on 10,000 acres (**in comparison COLF encompasses only 700 acres**). Noise levels on the flight deck can exceed 145dBA. Below the flight deck is the gallery deck in which approximately 1400 sailors live and work. The high noise levels directly above adversely impact most of the gallery deck. Gallery deck noise levels, often in excess of 100dBA, can have the effect of reducing cognitive skill levels and cause miscommunication problems, both causes of fatal accidents.

In addition the

Environmental Noise Projection, Environmental noise is a concern with regard to environmental compliance and encroachment of military operations on adjacent civilian activities. The "buy quiet" approach requires designers and engineers to obtain noise emission data before purchasing to choose the quietest available and affordable equipment. Noise emission values obtained from various suppliers can be compared with each other, and can be used for prediction of the noise levels in the area where equipment is to be placed. Even though quieter equipment generally can be more expensive.

Occupational hearing loss has human, economic, and readiness impacts.

Hearing loss may result in diminished quality of life of Navy personnel including isolation from social interaction. The economic effects of hearing loss to the Navy include lost time and decreased productivity, loss of qualified workers through medical disqualification, civilian workers' compensation costs and military disability settlements, retraining, and expenses related to medical intervention (e.g., costs of hearing aids and audiometric testing). Noise-impaired communications affect combat performance, and noisy ship systems mean a ship signature that is easily tracked. (Acquisition Safety-Noise Control Aboard Navy Ships, Naval Safety Center; 2/5/2014)

It is not only surprising, but almost shocking that the DEIS does not, at any time, reveal the effects of noise on a civilian population. The DEIS must, obviously, consider the civilian population as collateral damage without any compensatory measures.

From Norway, the Navy personnel with the highest noise exposure performed poorer on a cognitive performance test than personnel with the lowest noise exposure. (Kaja Irgens-Hansen, May 6, 2016, University of Bergen, Norway; Effects of noise exposure among Navy Personnel.)

To state that hearing loss will only affect citizens in Central Whidbey in 40 years continues to undermine the probable effects of loud noise emitted by the Growlers. While the noise may result in temporary hearing threshold shifts the lack of understanding how the cochlea works is evident:

"in humans and chinchillas, behavioral measures of ATS (Asymptotic threshold shift) completely or almost completely recovered from ATS exceeding 60 dB as long as the exposure duration lasted only 1 week; however, for very long exposure durations lasting as long as 161 weeks, hearing thresholds from a 50 dB ATS only recovered 10-15 dB resulting in PTS" (Permanent Threshold Shift) (Carder and Miller, 1971, Carder, 1972, Mills and Talo, 1972, Mills et al., 1979, Cody and Johnstone, 1981, Clark, 1991, Melnick, 1991).

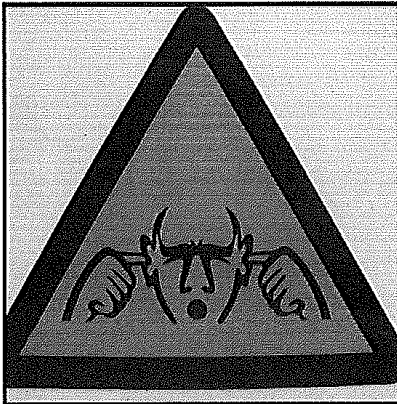
Likewise, hearing thresholds from a prolonged noise exposure only partially recovered when guinea pigs were continuously noise exposed for 120 days (Syka and Popelar, 1980). For 40-45 dB of ATS, there was only 15-20 dB of hearing recovery leaving a significant permanent hearing loss of 20-35 dB at frequencies within and above the noise band. In the present study in rats, a 55 dB CTS was reached. After the five week escalating noise exposure, there was only ~20 dB of recovery resulting in a permanent threshold shift of 30-40 dB and significant OHC and IHC loss in the high frequency region of the cochlea. ABR auditory brainstem response ATS asymptotic threshold shift IHC inner hair cell PNITS prolonged noise exposure-induced threshold shift NBN narrow band noise NIHL noise induced hearing loss NL noise level OHC outer hair cells PTS permanent threshold shift (Prolonged noise exposure-induced auditory threshold shifts in rats Guang-Di Chen,* Brandon Decker, Vijaya Prakash Krishnan Muthaiah, Adam Sheppard, and Richard Salvi, Hear Res. 2014 Nov; 317: 1-8. Published online 2014 Sep 9, 2014)

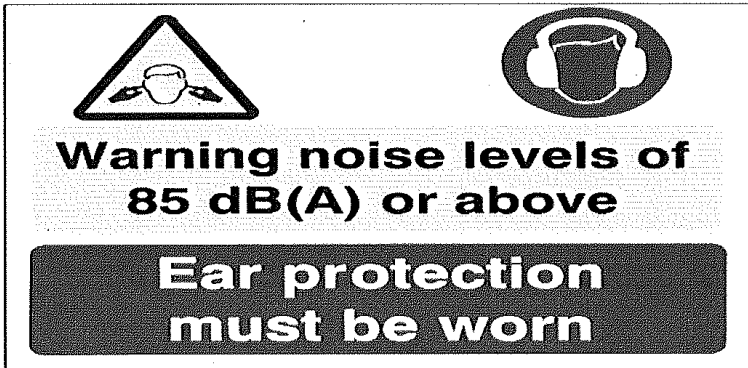
This article disputes clearly the assumption of permanent threshold shift would take "40 years." Temporary threshold shifts in hearing become less and less temporary with the continuation of that exposure without protection. The consistent exposure to the broad frequency emission by the Growlers can cause hearing loss relatively quickly the closer people live to OLFC. Some people are particularly sensitive to impact noise and could experience significant, permanent hearing loss in **one** touch and go. Especially since many are exposed to high level impulse noise (acute noise over 100dB) which will occur



over 30,000 times annually. Anyone working or recreating outside may suddenly be exposed to levels one 100dB. Many of us have measured noise levels up to 130dB(A). Ask any Audiologist how often they see patients that have experienced permanent hearing loss from one cherry bomb (firecracker) or one rifle shot. In addition the **most compensated injuries in the military are tinnitus and hearing loss**. Billions of dollars are spent annually by the Department of Veteran Affairs for those injuries that are permanent. All branches of the military services are actively trying to reduce these

significant costs. (US Department of Veterans Affairs, Veterans Benefits Administration, Compensation, Service-Connected Disability or Death Benefits FY2013, released 07/17/2014) Civilians living under and near the flight path at OLFC where persistent noise from the Growler also affects their hearing and general health are NOT afforded the same compensation nor treated the same as members of the military and veterans. The Navy does not even warn civilians, in the most minimal way, by putting up warning signs that they may be entering a significant noise area around and near OLFC, such as these.





The sign features two icons at the top: a triangle with a cup and two arrows pointing outwards, and a circular icon of a cup with headphones. Below the icons, the text reads: "Warning noise levels of 85 dB(A) or above". At the bottom, a dark rectangular box contains the text: "Ear protection must be worn".

**Warning noise levels of
85 dB(A) or above**

**Ear protection
must be worn**

The annual cost to taxpayers for tinnitus alone is 1.2 BILLION and, of course, none of this income is taxed.

Loma Linda Veterans Affairs Medical Center, Loma Linda, CA, USA Loma Linda University Medical School, Loma Linda, CA, USA Cell & Molecular Pathology Laboratory, Department of Communication Sciences and Disorders, Northern Arizona University, Flagstaff, AZ, USA. 840, 000 and the cost to compensate veterans for tinnitus is over \$1.28 billion annually. In compensated tinnitus patients, the perception of auditory sounds is normally extinguished in a short time through the "habituation" mechanism: the superior brain (involving the frontal gyri, cingulate gyrus, and parietal cortices) activates thalamic filters to switch off the signal, often independently of the resolution of the dysfunction that generated the tinnitus (peripheral auditory nerve dysfunction and neural changes of the central auditory system). Because of the strong association of tinnitus with psychiatric disorders and indications that veterans are particularly vulnerable to experiencing tinnitus, anxiety, and depression [17], this study aimed to further evaluate comorbid anxiety and depression associated with tinnitus in a veteran population.

According to an analysis of data conducted by ATA, the VA spent 1.2 billion on tinnitus-related compensation to veterans in 2012. Tinnitus is the leading service-connected disability for veterans from all periods of service and while there are some treatments that work for some people, there is currently no cure. The American Tinnitus Association reports that as many as 50 million Americans experience chronic tinnitus, with about 12 million reporting a level of disturbance great enough to seek medical attention, and 2 million Americans who are unable to function in daily activities due to the severity of their tinnitus. Tinnitus and hearing loss top the list of war-related health costs. The total number of vets awarded disability compensation for tinnitus as of fiscal year 2006 surpassed 390, 933. Noises inside the heads of tinnitus patients can drive them crazy, or worse. As many as 2 million become so debilitated by the unrelenting ringing, hissing, chirping, clicking, whooshing or screeching, that they cannot carry out normal daily activities, their lives "essentially ruined," said Jennifer Born, an ATA spokeswoman in Portland, Ore. If we look at payments for disability compensation for tinnitus. A total of 10, 289 (17 percent) received compensation due to a combat-related disability. He has written extensively on a full range of human resources topics in books and newsletter and a co-founder of two companies and several newsletters concerning federal human resources. (2 Billion on Tinnitus-related Compensation to Veterans, How to Cure Tinnitus)

At a conference by the US Navy in 2013: Shipboard Noise Control on US Navy Aircraft Carriers NHCA Conference St. Petersburg, FL February 24, 2013 the conclusions were as follows:

Summary and Conclusions

- Designer NOISE™ acoustic modeling software accurately predicted noise levels for treated and untreated compartments
- Tech21 Silent-R spray-on damping treatment shown to be effective resulting in noise reduction of 5-7 dBA in treated compartments
- Data measured from on-deck microphones and accelerometers on flight deck underside was successfully used to determine inputs to acoustic models and validate source levels
- Acoustic array data verified surfaces that were the most important contributors to overall noise levels in measured compartments and also showed a significant reduction in acoustic "hot spots" after treatment
- Designer NOISE™ can be used to develop an optimized noise reduction plan wrt cost, weight and effectiveness of treatment options.

The DEIS (page 4-46) states, "*According to the USEPA, changes in hearing level of less than 5dB are generally not considered noticeable. YET The range of potential NIPTS could be up to 9.5 dB at Ault Field and 7.5 dB at OLF Coupeville.*" This is an admission that hearing loss is inevitable. While a change in hearing level of 5 dB is not noticeable it certainly can change a hearing test result from "normal hearing" at an average of 24 dB (at 500, 1000, 2000Hz respectively) to an average of 29dB, which is considered to be a hearing loss significant enough to require amplification. The 5-dB decrease in the DEIS is cherry picked and is useless in any audiological analysis. Also it should be noted AGAIN that none of the noise analysis in the Wylie report in the appendix is based on real-time measurements.

NON-AUDITORY HEALTH EFFECTS

The DEIS (page 4-50) states, "*The results of most cited studies are inconclusive and cannot identify a causal link between aircraft noise exposure and the various type of non-auditory health effects that were studied. An individual's health is greatly influenced by many factors known to cause health issues, such as hereditary factors, medical history, and life style choices regarding smoking, diet, and exercise.*"

While there may be other factors contributing to the non-auditory effects on humans this conclusion is disingenuous since aircraft noise at night has a significantly impacts sleep, addressed earlier in this response, which is admitted by the DEIS, pg. 4-43. Again the DEIS is attempting to undermine scientific evidence.

Vibration Effects from Aircraft Operations

While DEIS admits that low frequency vibration may have an effect on structures, it ignores the possible effects of low frequency vibration exposure on health which, "...causes are connective tissue diseases, tissue injury, diseases of the blood vessels..." (Canadian Centre for Occupational Health and Safety, Fact Sheet, 1/24/2017). The fact sheet goes on to explain:

Whole-body vibration can cause fatigue, insomnia, stomach problems, headache and "shakiness" shortly after or during exposure. The symptoms are similar to those that many people experience after a long car or boat trip. After daily exposure over a number of years, whole-body vibration can affect the entire body and result in a number of health disorders. Sea, air or land vehicles cause motion sickness when the vibration exposure occurs in the 0.1 to 0.6 Hz frequency range. Studies of bus and truck drivers found that occupational exposure to whole-body vibration could have contributed to a number of circulatory, bowel, respiratory, muscular and back disorders. The combined effects of body posture, postural fatigue, dietary habits and whole-body vibration are the possible causes for these disorders.

Studies show that whole-body vibration can increase heart rate, oxygen uptake and respiratory rate, and can produce changes in blood and urine. East European researchers have noted that exposure to whole-body vibration can produce an overall ill feeling which they call "vibration sickness." Many studies have reported decreased performance in workers exposed to whole-body vibration.

Another study reports health risks associated with low frequency vibration (Noise Health. 2004 Apr-Jun;6(23):73-85. Effects of low frequency noise up to 100 Hz.Schust M1.):

The use of a frequency weighting with an attenuation of the low frequencies (e.g. G-weighting) does not seem to be appropriate for the evaluation of the health risks caused by LFN (Low Frequency Noise) up to 100 Hz. It may be proposed to measure third octave band spectra or narrow band spectra. A comparison with the known human responses caused by the measured levels and frequencies could help to evaluate the health risks. Some proposals for further investigations were given: (1) experimental methods to discover the ways mediating the effects of low frequency noise, (2) consideration of the individual hearing threshold or hearing threshold shift and of the vibrotactile threshold in the low frequency range to be able to judge the effects, (3) consideration of combined body vibration caused by airborne low frequency noise or by other sources, (4) modeling to analyze the transmission of the acoustic energy from the input into the body to the containing sensors, (5) consideration of **probable risk groups like children or pregnant women.**

Ultrasonic noise may affect hearing and non-hearing parts of the body. Because audible noise is also present in industrial conditions, it is difficult to interpret the results of environmental studies on the effects of ultrasounds on hearing [37, 38,39]. Furthermore, the age of study participants and the potential presence of chemical factors in the working environment are also important. Nevertheless, some reports indicated that components with ultrasonic frequencies may cause sound sensations associated with hearing defects within the high frequency range, which audiometric tests do not always taken into account [15, 20]. Subjective symptoms like headache and dizziness, tinnitus, balance disturbances and nausea are typical for workers exposed to ultrasounds of low frequencies. Health standards are to prevent subjective effects of exposure to ultrasonic noise

and hearing damage. Proposals of these standards were based on two basic assumptions: (a) high audible frequencies may cause annoyance, tinnitus, headache, fatigue and nausea and (b) ultra-sound components with high sound pressure level may cause hearing damage. Therefore, admissible values were determined at a level that does not eliminate hearing damage and subjective effects (fatigue, headache, nausea, tinnitus, vomiting, etc.) [40, 41, 42, 43].

In conclusion, studies conducted to date in Poland and worldwide indicate that ultrasonic noise may cause excessive fatigue, headache, discomfort and irritation. There are some analogies between ultrasonic and audible noise. Audible noise with sound level not exceeding 80 dB(A) is perceived as causing discomfort and having a negative effect on human cognitive functions. Irritation caused by ultrasonic noise may cause reduced work effectiveness [46, 47]. (International Journal of Occupational Safety and Ergonomics, Effects of Ultrasonic Noise on the Human Body-A Bibliographic Review, 2013, Vol. 19, No. 20).

Additional information on noise impacts on health and on low frequency noise are further examined below in Appendix B and Appendix C of this Addendum.

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We can conclude from the significant bibliography that there is enough scientific evidence indicating that low frequency vibration has an effect of human health.

Single Event Noise

The DEIS states on page 4-63, "*This analysis shows that while there may not be a substantive difference in the loudest event at a particular POI, there may be a difference in the number of times that loudest event would occur between alternatives and compared to the No Action Alternative.*"

As stated previously, sudden unexpected noise evokes reflex responses. Sudden noise also creates a "fight or flight" response increasing cortisol levels. Noise exposure of sufficient intensity, duration, and unpredictability provokes changes that may not be so readily reversible.

Acoustic trauma is the sustainment of an injury to the eardrum as a result of a very loud noise. Its scope usually covers loud noises with a short duration, such

as an explosion, gunshot or a burst of loud shouting. The range of severity can be from increased pain to permanent hearing loss.(Wikipedia)

In addition Acute acoustic trauma

refers to permanent cochlear damage from a one-time exposure to excessive sound pressure. This form of NIHL (Noise Induced Hearing loss) commonly results from exposure to high-intensity sounds such as explosions, gunfire, a large drum hit loudly, and firecrackers. (Wikipedia)

The sudden and unexpected impact noise will damage the hair cells in the cochlear and hair cell death. This damage usually affects the outer hair cells which usually distorts the higher frequencies where many of the consonants of the English language are perceived causing significant distortion to speech understanding. Many people state that they have no other symptoms other than "people are mumbling" but "I hear just fine." This also occurs after persistent noise exposure. In addition there may be tissue damage can cause fluid leakage:

During cell death 'scars' develop, which prevent potassium rich fluid on the endolymph from mixing with the fluid on the basal domain.^[53] The fluids are kept from mixing because the potassium rich fluid is toxic to the neuronal endings and can damage hearing of the entire ear. If the endolymph fluid mixes with the fluid on the basal domain the neurons become depolarized, causing complete hearing loss. In addition to complete hearing loss, if the area is not sealed and leakage continues further tissue damage will occur. The 'scars' that form to replace the damaged hair cell are caused by supporting hair cells undergoing apoptosis and sealing the reticular lamina, which prevents fluid leakage.^[53] The cell death of two supporting hair cells rapidly expands their apical domain, which compresses the hair-cell beneath its apical domain.^[53]

Recent studies have investigated additional mechanisms of NIHL involving delayed or disabled electrochemical transmission of nerve impulses from the hair cell to and along the auditory nerve. In cases of extreme acute acoustic trauma, a portion of the postsynaptic dendrite (where the hair cell transfers electrochemical signal to the auditory nerve) can rupture from overstimulation, temporarily stopping all transmission of auditory input to the auditory nerve. This is known as excitotoxicity. Usually, this sort of rupture heals within about five days, resulting in functional recovery of that synapse. While healing, an over-expression of glutamate receptors can result in temporary tinnitus, or ringing in the ears. Repeated ruptures at the same synapse may eventually fail to heal, leading to permanent hearing loss.^[54]

Acoustic over-exposure can also result in decreased myelination at specific points on the auditory nerve. Myelin, an insulating sheath surrounding nerve axons, expedites electrical impulses along nerves throughout the nervous system. Thinning of the myelin sheath on the auditory nerve significantly slows the transmission of electrical signals from hair cell to auditory cortex, reducing

comprehension of auditory stimuli by delaying auditory perception, particularly in noisy environments.^[55]

There appear to be large differences in individual susceptibility to NIHL.^[56] The following factors have been implicated:

- missing acoustic reflex^[15]
- previous sensorineural hearing loss^[57]
- a bad general health state: bad cardiovascular function, insufficient intake of oxygen, a high platelet aggregation rate; and most importantly, a high viscosity of the blood^[15]
- cigarette smoking^[57]
- exposure to ototoxic chemicals (medication or environmental chemicals that can damage the ear), including certain solvents and heavy metals^{[38][57][58]}
- type 2 diabetes^[57]

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The DEIS goes on to state on page 4-66, "*Because the individual is assumed to be indoors for this analysis, noise level reduction factors were applied because the walls, doors, insulation, and other building features reduce the noise levels inside.*"

This statement is another assumption ask anyone living in Central Whidbey. Communicating in the house, while the Growlers are flying is **impossible**. Conversations, speaking on the phone, watching TV cannot be done unless the volume is so loud that it can also add to the potential hearing loss and stress.

Appendix A - List of DEIS Preparers -

From Chapter 8 of the DEIS, it is evident that none of the preparers of the DEIS possess medical credentials.

"The consulting firm responsible for the preparation of this document is: Ecology and Environment, Inc. 368 Pleasant View Drive Lancaster, New York 14086":

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Appendix B

White Paper Section 4.2.3 --Sound Exposure Level and Health--

(White Paper) Outlying Field Coupeville: Its Time Has Passed, An Analysis of the Arguments. By, Technical Committee of Citizens of Ebey's Reserve. 2016.
(<http://citizensofebeysreserve.com/Index.html>)

Section 4.2.3 Sound Exposure Level and Health

The DNL metric used to index annoyance is not the appropriate metric to evaluate impacts of virulent noise on health any more than the average wind speed in New Orleans throughout the year of 2004 is relevant to understanding the damage done by Hurricane Katrina. Whether wind or noise, it is exposure to hyper-intense periods that do the damage, not the benign periods.

Toxic noise produces an intertwined psychological, physical, and physiological reaction to sound, and that biological reaction includes reactions to the sound vibrations that penetrate into the entire body (just as it rattles buildings). So, to evaluate the biological complement of noise effects on health, single noise event metrics are used, such as, *sound exposure levels* (SELs), which the Navy sometimes references.

The above-mentioned independent noise study that COER commissioned (JGL Noise Study³) examined Growler flyover noise at five locations around OLFC while Growlers conducted FCLPs on Path 32. One site was directly under the approach over Admirals Cove and another was at a youth ballpark adjacent to and under the takeoff path. At each site about 30 Growler flyovers were recorded, and sound levels for each such flyover at all four outdoor sites were between 110 and 130+ dB.

At the ballpark/playground, where youths and parents were trying to enjoy a softball game conversation and cheers were drowned out by Growler noise of over 130 dB. In that recorded session of FCLPs, each parent and child present experienced a cumulative 2.25 minutes of noise over 100 dB or about 1 minute over what EPA has identified as a noise dose sufficient to cause permanent hearing loss (Appendix A). That is, if someone in a 24-hour period is exposed to 1.5 minutes of noise over 100 dB, the EPA indicates that individual will likely suffer some permanent hearing loss.

That ballpark session (duration = 36 minutes, flyovers = 28 or 1 flyover every 1.3 minutes) was with only two Growlers flying. Had there been four flying (about 1 flyover every 45 seconds), which often is the case, that 2.5 minutes of exposure time would have nearly doubled to 4

³ Whidbey Island Military Jet Noise Study, JGL Acoustics report to [REDACTED], June 10, 2013, available at <http://citizensofebeysreserve.com/References/Files/JGL%20Noise%20Report.pdf>

minutes. Noise levels were quite similar at the Admirals Cove, where kids and adults were trying to enjoy outdoor recreation, including their outdoor Olympic size swimming pool.

This is reinforced by the National Institute for Occupational Safety and Health (NIOSH). They assert that above a critical noise level, the mechanism of hearing damage changes from one based on cumulative noise exposure (i.e., the combination of magnitude and duration of sound) to a mechanism based on sound pressure intensity alone, regardless of duration (Appendix A). They estimate 115 to 120 dBA as the critical noise level at which human hearing is subject a permanent hearing threshold shift. And of course, each time this happens, each subsequent loss adds to prior loss.

The Navy has argued that the 2013 JGL noise study lacked statistical robustness because it was a stochastic one-time sample that might lack repeatability due to weather. That possibility lacks pragmatic significance because all sites were well within one mile of the jet track, which Lilly explained this way:

Temperature profiles, humidity, and wind all can affect the resulting sound level, but these environmental effects are insignificant unless the listener is at least a mile or more away from the source. The greater the distance, the greater the effect. Sometimes the environmental conditions will cause the noise level to increase by 10 dB (or more) and other times it might decrease the level by 10 dB (or more). Atmospheric conditions will have no impact on the areas directly below (or within a mile of) the flight patterns. (Jerry Lilly, JGL Acoustics)

Nevertheless, to resolve the possibility that the May 2013 JGL noise sampling was atypical of routine FCLPs at OLFC, we again commissioned a second set of samples in February 2016 with repeat sampling at the two of the same sites and at two additional sites not sampled in 2013. Samples at the 2016 repeated sites produced almost identical results with the 2013 measurements, while the two new sites showed that noise was extremely consistent across the full approach path above Admirals Cove. The consistency between the two independent sampling periods is expressed by the very low standard deviation and show that the JGL measurements were reliable and valid. As explained by JGL:

The primary purpose for this study [2016 study] was to determine if there is any significant difference in the measured noise levels when compared with the data collected in 2013. ... The fact that the measured change from 2013 to 2016 is less than half of the standard deviation of the maximum noise level within a single session suggests that the difference is insignificant. <JGL Acoustics>

It is also noteworthy that the JGL documented SELs at position 1 and 6, which are under the path 32 approach over Admirals Cove. His readings are very similar to the approach SELs for Growlers stated in the 2005 AICUZ. In addition the National Park Service during 31 days in July and August 2016 conducted on-site noise recordings at a site (EBLA001) directly between JGL sites 2 and 3 under the FCLP path. The NPS reported⁴ noise levels within just 5 to 7 dBA of those recorded by JGL at sites 2 and 3.

⁴ Ashley Pipkin, 2016. Ebey's Landing National Historical Reserve Acoustical Monitoring Report, Natural Resource Report NPS/ELBA/NRR—2016/1299. U.S. Department of the Interior, National Park Service, Natural Resource Stewardship and Science, Natural Sounds and Night Skies Division, Fort Collins, Colorado.

To address health issues related to the JGL noise data, COER retained a well-known environmental and occupational health physician, Dr. James Dalgren, professor at UCLA and on the staff at Cedars Sinai Hospital in Los Angeles, to review the Lilly and Wyle sound data and advise as to the attendant health risks. His conclusion in July 2014 is that *"the Navy has created a public health emergency at Central Whidbey Island."* He went on to say:

"If there was a poisonous gas cloud over Central Whidbey and people were falling over dead, they would know why. But because the health impacts are more gradual and cumulative most citizens do not yet know why they are suffering more strokes, more severe strokes, strokes at a younger age, cardiovascular events such as arrhythmias, heart attacks, hypertension, psychological damage such as anxiety, depression and panic attacks, along with sleep disorders, weight gains, hearing loss, tinnitus, and in children, especially, troubling learning disorders and attention deficit disorder."

As per state and national guidelines and law addressing noise exposure, Coupeville has sustained noise levels above the "community exposure level" threshold. This is reflected in a review of the scientific literature on noise-health studies by experts at the University of Washington, which confirms that public health is a real issue of great concern under OLFC's jet shadow. All of that extensive research information has been compiled and is available at COER's website⁵.

In an extensive examination of the effects of noise on human health, World Health Organization established the following noise standard maximums for dwellings.⁶

The effects of noise in dwellings, typically, are sleep disturbance, annoyance and speech interference. For bedrooms the critical effect is sleep disturbance. Indoor guideline values for bedrooms are 30 dB LAeq for continuous noise and 45 dB LAmax for single sound events. Lower noise levels may be disturbing depending on the nature of the noise source. At night-time, outside sound levels about 1 metre from facades of living spaces should not exceed 45 dB LAeq, so that people may sleep with bedroom windows open. This value was obtained by assuming that the noise reduction from outside to inside with the window open is 15 dB.

The JGL (2013) report documented the levels of Growler noise inside a contemporary to-code home under the OLFC jet path. Both unweighted and A-weighted scales of the 45-minute recording of a Growler session at OLFC show that the WHO 45-dB ceiling was continuously exceeded by 25 to 45 dB on the unweighted scale and by 5 to 65 dBA on the A-weighted scale; i.e., no readings were below 45 dB throughout the 25-minute recording period.

That WHO study (Berglund, et al. 1999) also set maxima for schools and hospitals; those levels cannot be met in the Coupeville area when Growlers are practicing at OLFC: mmm

⁵ http://citizensofbebysreserve.com/Files/Community%20Aircraft%20Noise_A%20Public%20Health%20Issue.pdf

⁶ Berglund, B., Lindvall, T. and Schwela, D.H (Eds.). 1999. Guidelines for community noise. World Health Organization, Geneva. < <http://www.bvsde.paho.org/bvscii/fulltext/noise/noise.pdf> >

In Schools and Preschools. For schools, the critical effects of noise are speech interference, disturbance of information extraction (e.g. comprehension and reading acquisition), message communication and annoyance. To be able to hear and understand spoken messages in class rooms, the background sound level should not exceed 35 dB LAeq during teaching sessions. For hearing impaired children, a still lower sound level may be needed.

In Hospitals. Since patients have less ability to cope with stress, the LAeq level should not exceed 35 dB in most rooms in which patients are being treated or observed. Attention should be given to the sound levels in intensive care units and operating theaters. Sound inside incubators may result in health problems for neonates, including sleep disturbance, and may also lead to hearing impairment.

Haralabidis et al. (2008)⁷ examined health impacts of jet noise on blood pressure (BP) and heart rate (HR) during night-time sleep in 140 subjects living near four major European airports.

Excerpts from that study reveal an effect on BP (emphasis added).

METHODS AND RESULTS:

Non-invasive ambulatory BP measurements at 15 min intervals were performed. Noise was measured during the night sleeping period and recorded digitally for the identification of the source of a noise event. Exposure variables included equivalent noise level over 1 and 15 min and presence/absence of event (with LAmax > 35 dB) before each BP measurement. Random effects models for repeated measurements were applied. **An increase in BP (6.2 mmHg (0.63-12) for systolic and 7.4 mmHg (3.1, 12) for diastolic) was observed over 15 min intervals in which an aircraft event occurred.** A non-significant increase in HR was also observed (by 5.4 b.p.m.). Less consistent effects were observed on HR. When the actual maximum noise level of an event was assessed there were no systematic differences in the effects according to the noise source.

CONCLUSION:

Effects of noise exposure on elevated subsequent BP measurements were clearly shown. The effect size of the noise level appears to be independent of the noise source.

An extensive literature analysis by the Navy indicated a number of correlations showing impacts of noise greater than 85 dBA on the developing fetus, as discussed in greater detail in Appendix A. Consequently, during pregnancy, the Navy has decided that women should not be exposed to extended periods of noise above 84 dB, as below from

<http://www.operationalmedicine.org/ed2/Enhanced/Pregnancy/EnvironmentalHazardsDuringPregnancy.htm>:

Pregnant women should wear hearing protection when exposed to ambient noise levels above 84dBA, including infrequent impact noise...Brief exposure (5 minutes per hour or less) of hearing-protected pregnant women to ambient noise above 84dBA in order to transit high noise areas is probably safe. Prolonged exposure to this level of

⁷ Haralabidis et al., 2008: *Acute effects of night-time noise exposure on blood pressure in populations living near airports.* *Eur Heart J.* 2008 Mar;29(5):658-64.

noise is not recommended...Pregnant women should avoid any exposure to ambient noise greater than 104dBA (corresponding to the need for double hearing protection), unless absolutely essential for quickly moving through a high noise area. The abdominal wall muffles (attenuates) the noise only somewhat and these very noisy areas may pose significant problems for the developing fetus.

Many reproductive women live under the OLFC flight path and are exposed to levels of Growler noise that far exceed safe levels for their developing fetus.

Appendix c

White Paper Section 4.2.5

--Low-Frequency Noise Effects on Health--

(White Paper) Outlying Field Coupeville: Its Time Has Passed, An Analysis of the Arguments. By, Technical Committee of Citizens of Ebey's Reserve. 2016.
(<http://citizensofebeysreserve.com/index.html>)

4.2.5 Low-Frequency Noise Effects on Health

All noise consists of pressure fluctuations in the air. Low-frequency noise (LFN) fluctuations are at between 20 and 160 times/sec. Most everyday sounds fluctuate much faster than this (up to 16,000 times/sec), so the term "low frequency" means the fluctuations are relatively slow compared with other types of sound. In audiology, the measured range is restricted to the frequencies relevant to speech 125–8000 Hz. Low frequencies are loosely defined as those below this range, which are typically heard as a low rumble. Sometimes there is also a sensation of vibration or pressure on the ears.

Low-frequency noise travels further than higher frequencies due sound "attenuation" sound loss to heating of the medium it is propagating through. The attenuation of sound waves is frequency-dependent in most materials; low frequencies are not absorbed at nearly the same rate as high frequencies, so low frequencies travel further through air.

(https://en.wikibooks.org/wiki/Engineering_Acoustics/Outdoor_Sound_Propagation).

The Growler sound profile is substantially different from the Prowler. From the Navy's own website: "The EA-18G has more low-frequency content than the Prowler. Close to the airfield, there might be a slight increase in potential for noise-induced vibration in areas where the peak sound levels exceed 110 dB."

The 2012 Wyle noise study reiterates that:

The EA-18G Growler is recognizable by the low frequency "rumble" of its jet engines, whereas the EA-6B Prowler is associated with a higher frequency sound of its jet engines. With its increased low-frequency content, Growler take-off events have the higher potential to cause noise induced vibration. Noise-induced structural vibration may also cause annoyance to dwelling occupants because of induced secondary vibrations, or rattling of objects within the dwelling such as hanging pictures, dishes, plaques, and bric-a-brac. (p 1-15)

Sound propagation through hard surfaces, such as walls, is also affected by sound reflection, which is also frequency-dependent. High frequencies are better reflected than low frequencies, which are able to pass through hard barriers.

According to Mireille Oud, a medical physicist in an article *Low-Frequency Noise: a biophysical phenomenon*, “there is no shielding against LFN. Since LFN propagation is mainly structure-borne, closing doors and windows is not effective. Earplugs are of no use, because LFN bypasses the eardrum.”⁸

Just as LFN vibration affects structures, those same vibrations invade the human body and impact organ systems. The impacts of LFN on human health have been widely documented; the following are examples:

7 Hz: Supposedly the most dangerous frequency corresponding with the median alpha-rhythm frequencies of the brain. It has also been alleged that this is the resonant frequency of the body’s organs; therefore, organ rupture and even death can occur at prolonged exposure.⁹

1–10 Hz: “Intellectual activity is first inhibited, blocked, and then destroyed. As the amplitude is increased, several disconcerting responses have been noted. These responses begin a complete neurological interference. The action of the medulla is physiologically blocked, its autonomic functions cease.”¹⁰

43–73 Hz: “...lack of visual acuity, IQ scores fall to 77% of normal, distortion of spatial orientation, poor muscular coordination, loss of equilibrium, slurred speech, and blackout.”¹¹

50–100 Hz: “...intolerable sensations in the chest and thoracic region can be produced—even with the ears protected. Other physiological changes that can occur include chest all vibration and some respiratory rhythm changes in human subjects, together with hypopharyngeal fullness (gagging). The frequency range between 50 and 100 Hz also produces mild nausea and giddiness at levels of 150–155 dB, at which point subjective tolerance is reached. At 150–155 dB or 0.63–1.1 kPa [Pa is the SI symbol for pascal or pressure/stress; k = kilo or 1000], respiration-related effects include substernal

⁸ Mireille Oud, *Low-frequency Noise: a biophysical phenomenon*, Presented at Congress “Noise, Vibrations, Air Quality, Field & Building”, 6 November 2012, Nieuwegein, The Netherlands.

⁹ *Organ Music Instills Religious Feelings*, by Jonathan Amos, 9/8/2003

¹⁰ Gavreau V., “*Sons graves intenses et infrasons*” in: *Scientific Progres – la Nature* (Sept. 1968) p. 336-344

¹¹ Gavreau V., “*Sons graves intenses et infrasons*” in: *Scientific Progres – la Nature* (Sept. 1968) p. 336-344

discomfort, coughing, severe substernal pressure, choking respiration, and hypopharyngeal discomfort.”¹²

100 Hz: At this level, a person experiences irritation, “mild nausea, giddiness, skin flushing, and body tingling.” Following this, a person undergoes “vertigo, anxiety, extreme fatigue, throat pressure, and respiratory dysfunction.”¹³

Numerous studies demonstrate the well-known characteristics and adverse impacts of LFN, impacts not assessed by the Navy in its 2012 EA. That research strongly supports serious health effects of LFN like vertigo, disturbed sleep, stress, hypertension, and heart rhythm disorders. One such study¹⁴ had this to say:

Although the effects of lower intensities of low frequency noise are difficult to establish for methodological reasons, evidence suggests that a number of adverse effects of noise in general may be greater for low frequency noise than for the same noise energy in higher frequencies: loudness judgments and annoyance reactions are greater for low frequency noise than other noises for equal sound pressure level regardless of which weighting scheme is employed (Goldstein, 1994); annoyance is exacerbated by rattle or vibration induced by low frequency noise; speech intelligibility may be reduced more by low frequency noise than other noises (except those in the frequency range of speech itself because of the upward spread of masking) (Pickett, 1959; Loeb, 1986).

Another study¹⁵ summarized 25 years of research on health impacts pertaining to LFN:

Abstract: Respiratory pathology induced by low frequency noise (LFN, < 500 Hz, including infrasound) is not a novel subject given that in the 1960's, within the context of U.S. and U.S.S.R. Space Programs, other authors have already reported its existence. Within the scope of vibroacoustic disease (VAD), a whole-body pathology caused by excessive exposure to LFN, respiratory pathology takes on specific features. Initially, respiratory pathology was not considered a consequence of LFN exposure; but today, LFN can be regarded as a major agent of disease that targets the respiratory system.

¹² Acoustic Trauma: Bioeffects of Sound, by Alex Davies

¹³ Gavreau V., “Sons graves intenses et infrasons” in: *Scientific Progres – la Nature* (Sept. 1968) p. 336-344

¹⁴ Stalker, From a Short History of Sound Weapons Pt2: Infrasound, January 14, 2008

¹⁵ Respiratory pathology in vibroacoustic disease: 25 years of research, Branco NA¹, Ferreira JR, Alves-Pereira M.

The authors concluded, in part, with this statement:

In persons exposed to LFN on the job, respiratory complaints appear after the first 4 years of professional activity. At this stage, they disappear during vacation periods or when the person is removed from his /her workstation for other reasons. With long-term exposure, more serious situations can arise, such as, atypical pleural effusion, respiratory insufficiency, fibrosis and tumours. There is no correlation with smoking habits. In LFN-exposed animal models, morphological changes of the pleura, and loss of the phagocytic ability of pleural mesothelial cells (explaining the atypical pleural effusions). Fibrotic lesions and neo-vascularization were observed along the entire respiratory tract. Fibrosis lesions and neovascularisation were observed through- out the respiratory tract of the animals seen. Pre-malignant lesions, metaplasia e displasia, were also identified.

And the authors further explain, “LFN is an agent of disease and the respiratory tract is one of its preferential targets. The respiratory pathology associated with VAD needs further in-depth studies in order to achieve a greater understanding, and develop methods of pharmacological intervention.”

Excerpts from another publication: Noise-induced extra-aural pathology: a review and commentary, Alves-Pereira M¹⁶ further define LFN health effects.

Abstract: The focus of this review paper will be the effects of acoustic phenomenon (noise), characterized by large pressure amplitude ≥ 90 dB) and low frequency (≤ 500 Hz) (LPALF) on humans and animal models. Current concepts imply the assumption that such LPALF noise impinges only on, or through, the somatic medium of the auditory system. As a consequence of this assumption, the effect of noise on humans is only regulated for purposes of hearing conservation. Guidelines and regulations governing occupational noise assessments are biased toward the subjective human perception of sound. The author will not make the assumption that airborne acoustic phenomena impacts only on the auditory system, and will present a literature review providing evidence for such position. The purpose of this review paper is to defend the existence of extra-aural, noise-induced pathology, particularly the vibroacoustic disease; and to advance the recognition that the respiratory tract could very well be a target organ of this environmental stressor.

An epidemiological survey¹⁶ examined LFN from plant and appliances in or near domestic buildings by comparing an exposed test group (27 individuals) to a control group (22 individuals) that had comparable dwelling conditions to the test group, except that there was no LFN.

¹⁶ Alves-Pereira M: Noise-induced extra-aural pathology: a review and commentary, 1999
Mirowska and Mroz. 2000. As reported in <https://www.wind-watch.org/documents/review-of-published-research-on-low-frequency-noise-and-its-effects/>

There were 27 individuals in the test group and 22 in the control group. The test group suffered more from their noise exposure than the control group did, as indicated in the table below.

Symptom	Test group %	Control group %
Chronic fatigue	59	38
Heart ailments anxiety, stitch, beating palpitation	81	54
Chronic insomnia	41	9
Repeated headaches	89	59
Repeated ear pulsation, pains in neck, backache	70	40
Frequent ear vibration, eye ball and other pressure	55	5
Shortness of breath, shallow breathing, chest trembling	58	10
Frequent irritation, nervousness, anxiety	93	59
Frustration, depression, indecision	85	19
Depression	30	5

It is important to note that while the intensity of Growlers practice at OLFC is not constant but episodic, the sound intensity far exceeds anything like the intensity the subjects above experienced.

The World Health Organization recognizes the special health created by LFN, as summarized in its publication on Community Noise¹⁷ (Berglund et al., 2000):

For noise with a large proportion of low frequency sounds a still lower guideline (than 30dBA) is recommended...When prominent low frequency components are present, noise measures based on A-weighting are inappropriate...It should be noted that a large proportion of low frequency components in a noise may increase considerably the adverse effects on health...The evidence on low frequency noise is sufficiently strong to warrant immediate concern.

Finally and perhaps most sadly, numerous studies have been documented health impacts on the developing fetus (see Section 4.2.3), but only one study focused on LFN. As reiterated in <http://oem.msu.edu/userfiles/file/News/Hv6n3.pdf> that study examined 131 children ages 4-10 from Quebec. It showed a 3-fold increased risk of LFN-induced hearing loss in children whose mothers had been exposed to 85-95 dB, particularly if these exposures involved a strong component of low-frequency noise.

¹⁷ World Health Organization, Guidelines for Community Noise, edited by B. Berglund, T. Lindvall, and D. H. Schueta, Cluster of Sustainable Development and Healthy Environment, Department of the Protection of the Human Environment, Occupational and Environmental Health, Geneva, Switzerland, 1999.

**Citizens of Ebey's Reserve (COER) Comments:
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for Naval Air Station Whidbey Island**

Addendum 3:

Failure to Address PFC Contamination of Drinking Water

Prepared for COER by [REDACTED]

The National Environmental Policy Act, as implemented by Council on Environmental Quality Regulations, requires that Environmental Impact Statements evaluate the potential environmental impacts on identified resource areas. Those resource areas include *water resources*. As stated in the DEIS, water resources includes *groundwater*. It is described as, "water that flows or seeps downward and saturates soil or rock, supplying springs and wells. Groundwater is typically found in aquifers with high-porosity soil where water can be stored between soil particles and within soil pore spaces.¹ Such is the groundwater beneath the areas of the proposed project areas at Ault Feld and the OLFC. This water resource is used for both water consumption and agricultural irrigation.

In May 2016, the U.S. Environmental Protection Agency (EPA) issued lifetime health advisory levels for two PFAS, specifically perfluorooctane sulfonate, PFOS, and perfluorooctanoic acid, PFOA, at 70 parts per trillion, individually and combined. In March, the Navy provided the Ebey's Landing National Historical Reserve with a request/notification that the Navy wanted to drill wells at OLFC. In August, 2016, the Navy held a meeting on August 18th of the Installation Restoration Program Restoration Advisory Board. During the meeting it was reported that the EPA made it clear to the Navy that the Navy was responsible for the plume of contamination at NASWI advancing 400 feet per year because of Joint & Several Liability. During this presentation, emerging contaminants, (PFAS's) were discussed. On November 10th, about 100 homeowners in a 1-mile radius of OLFC received a letter from the Navy that their wells might be contaminated and they should have their well water tested. This was the same week the Navy released its DEIS to the public. In the DEIS, water issues are dismissed as not relevant to the Growler DEIS process. Clearly from the timeline, the Navy was planning for an investigating of PFAS's at OLFC and Alt Fields for probable contamination and did not want citizens weighing in on this issue. We believe the Growlers, the increase of Growlers, and FCLP's at OLFC are connected to the ground water contamination issue.

Naval Air Station Whidbey Island already has its hands full with a designated superfund site that

¹ NAS Whidbey Island Complex Growler DEIS, Volume 1 November 2016

will have less EPA oversight in the coming year. The EPA has recently announced that no superfund sites will receive funding in 2017. This is not good news for citizens.

WA5170090059	Naval Air Station, Whidbey Island (Ault)	Island	Ault Field groundwater is contaminated by VOCs including TCE and TCA. Soils and sediments are contaminated by PCBs, heavy metals, pesticides, PAHs and dioxins. ¹⁵²¹	09/18/1985	02/21/1990	09/25/1997	--
WA6170090058	Naval Air Station, Whidbey Island (Seaplane)	Island	Soil in areas of the seaplane base was contaminated by heavy metals including lead and arsenic, pesticides and PAHs. Contaminated soil has been removed; possible remaining groundwater, surface water and sediment contamination is not thought to pose a risk to human health or the environment. ¹⁵²¹	09/18/1985	02/21/1990	06/29/1995	09/21/1995

The DIES falsely concludes, in a single paragraph of its Executive Summary, that the proposed action would have no significant impact on Water Resources. The only water resource in Central Whidbey is the ground water that supplies fresh water to most of the people and businesses of Central Whidbey and beyond. There are no surface water resources – no creek, rivers or streams in Central Whidbey. The Navy’s narrow conclusion is based only the assessment of the potential impacts from “construction activities.”

The DEIS fails to address the potential impacts from the *operations* associated with the Growlers. Those operations include takes-offs, landings, and Field Carrier Landing Practice (FCLP). Included in these operations are *planned responses to accidents* and *preparedness training for those accidents*, both of which can involve the releases of toxic chemicals to groundwater. Equipment such as fire trucks are a regular part of FCLP procedures and are present during all Navy flight training at OLFC.

Although the DEIS touches on the use of best management practices (BMP) to mitigate “spills” associated with “construction activities”, it does *not* address mitigations of spills or releases associated with *operational activities*. Releases of contaminants, including PFASs, are known to have adverse impacts far beyond areas of construction and operational activities. Further, these chemicals are in the fire-retardant foam carried on Navy fire trucks that would extinguish aircraft fires, should they occur.

Because groundwater travels through aquifers, or is drawn from aquifers for transport to other

areas, contamination can have significant adverse impacts far beyond the point of contamination. The USEPA has designated the Whidbey Island aquifer system as a sole-source aquifer: it is the only supply of potable water for at least half of the island's residents. There is no viable alternative source of drinking water for those using groundwater, and the aquifer boundaries have been defined (URS, 1995).

The City of Oak Harbor relies on three municipal wells that draw from the aquifer for 25% of its drinking water. Residents near Ault Field who are not located in the Oak Harbor water district use private wells that draw from the aquifer. The Town of Coupeville relies on water drawn from the aquifer for 100% of its drinking water, as do more than one-hundred private well owners in the area of OLFC. The potential for serious impacts to groundwater by Growler operations proposed in the DEIS are evidenced by the adverse impacts that have already occurred. Additional risks are unwarranted and will be expensive for the Navy to mitigate.

The groundwater beneath Ault Field and the OLFC are contaminated with the Navy's toxic chemicals. Identified chemicals of concern have migrated off-site where they have contaminated public and private drinking water supplies. The severity of those impacts is such that private well owners living near Ault Field and the OLFC have been provided bottled water by the Navy and advised by both the Navy and regulatory agencies not to drink or cook with the water from their wells. The Town of Coupeville has been forced to curtail the use of its primary drinking water well and rely more heavily on wells that, if not already contaminated, are in danger of contamination. The Town's water system now provides approximately 800 in-town customers and over 250 out-of-town customers with water containing the Navy's toxic chemicals. This includes the Island County hospital, the County offices and jail, restaurants and business in the state's 2nd oldest town of Coupeville, and three schools.

The adverse impacts from the Navy's pollution did not result from "construction activities." They resulted from activities associated with jet training operations at both sites.

The proposed increases in numbers of EA-18G operations under all of the proposed action alternatives will increase the risks of additional impacts. Those risks have yet to be assessed and are ignored in the DEIS. No jets should be allowed at OLFC until the fire-retardant contamination is removed from the water that has been contaminated by the Navy.

Source of Contamination

The source of PFAS contamination at Ault Field and OLFC is a PFAS-containing fire suppressant known as Aqueous Film-Forming Foam (AFFF). Data on PFC drinking water contamination are collected under the EPA's Unregulated Contaminant Monitoring Rule (UCMR) shows 664 fire-or-crash-training sites, identified by the Department of Defense, where AFFF was used, often for decades.

The Navy's investigation of PFAS contamination at Ault Field is centered on fire training and other areas where AFFF was known to have been used or may have been used. Based on Island

County real estate records, 177 parcels are located downgradient of the identified sites, of which 66 are documented as served by private wells. It is unknown whether the remaining parcels are served by private wells.²

The Navy's PFAS investigation at OLFC was extended to off-site areas after PFAS chemicals were found in an OLFC drinking water well. Based on Island County records, there are approximately 350 properties and over 100 private wells located within a mile of a single point at the OLFC where PFAS contamination was discovered. As of January 30, 2017, the Navy still claimed to have no record of the use of AFFF at OLFC. Those claims are contradicted by eyewitness accounts. The Navy held an 'Open House' public meeting in the community to explain its off-site investigation plans but made no effort to obtain information from the community about the use, storage, or disposal of AFFF at the OLFC. The Navy's on-site investigation plan for the OLFC identifies the location of the on-site contaminated well as a "source" and further states, "Additional suspected source areas include the runway and storage buildings located east of the runway."³

Continued Threat to Drinking Water Resources

The Navy has made it made clear its intention to continue its use of AFFF, even though alternatives are available. Contrary to representations being made to the public, AFFF is still being used at the Ault Field fire training school as stated in the Navy's January 17 on-site investigation plans. Should there be an accident at the OLFC, Navy firefighters will apply AFFF and further jeopardize drinking water supplies for hundreds of families. The threat posed to the Town of Coupeville's main drinking water supply-well, which serves over one thousand homes, is located adjacent to the OLFC runway. Because PFCs are unregulated, the law doesn't require their cleanup — and the costs of getting them out of the environment aren't covered by the Superfund program, so if the water is contaminated further by a crash, should the town or homeowner have to pay for the Growler crash risk? Certainly one single source aquifer is of equal or greater value than increased FCLP's at a non-conforming site that has a variety of other Navy alternatives.

The Navy's proposed increases in Growler operations will increase the potential for an accident and contamination of drinking water supplies for all of Central Whidbey, including three schools, the hospital, the County offices and the restaurants and businesses of Coupeville.

Contaminating Whidbey Island's only aquifer is not worth the Safety Risk of a Growler Crash

From the DEIS, page 4-261: "... While it is generally difficult to project future safety/mishap rates for any aircraft, the Growler has a well-documented and established safety record as a

² Investigation of Perfluorinated Compounds in Drinking Water, Sampling and Analysis Plan, Naval Air Station Whidbey Island, Oak Harbor, Washington, January 2017

³ SAMPLING AND ANALYSIS PLAN SITE INSPECTION FOR PERFLUORINATED COMPOUNDS IN GROUNDWATER, OUTLYING LAND FIELD COUPEVILLE, NAS WHIDBEY ISLAND, COUPEVILLE, WASHINGTON, JANUARY 2017, Page 30

reliable aircraft."

This quote is the extent of effort expended on an accident risk analysis in the DEIS! Yet a thorough risk analysis (while "*difficult to project*") *must* accompany every credible EIS. An EIS must include treating a "maximum foreseeable" (different from worst-case) accident, its probability of happening, its potential adverse consequences and its means and costs of remediation. The magnitude of a risk must be calculated from its probability and its consequences; comparisons of risks for each alternative proposed should be done. Stating "*reliable aircraft*" and "*well-documented safety record*" in the DEIS in no way acknowledges or documents the very real potential for a catastrophic flight incident at OLFC.

The DEIS writers somehow found it convenient to withhold important statistics (like the 22 crashes since 2000 of the EA-18G and its closely related F/A-18 E,F aircraft) from the DEIS. It also omitted several aggravating factors at OLFC that are conducive to catastrophic accidents, capable of endangering the civilian populace, the environment, local properties and the pilots themselves. The EIS accident risk analysis for all four action alternatives must include obvious risk factors. Some of these are facility shortcomings, unique Whidbey atmospheric challenges, scheduling compromises, contributors to pilot error like night flying, and the very significant and pernicious Growler technical problem, the hypoxia conundrum (on steady rise in the last eleven years) that continues to dog the Growler, its flyers and its engineers.

Furthermore, an EIS must include with its accident probabilities the potential harms and disruptions resulting from accidents of various levels of complexity and intensity. Since risk is defined as level of consequences multiplied by probability of occurrence, the more flight operations projected the more probability of crashes and the more risk. Omitting a risk analysis falsely engenders a tone of unrealistic optimism that challenges credibility. This DEIS puts forth options to multiply flight operations sixfold (amplifying the probability of crashes *at least* sixfold) yet robotically and blithely pronounces the same "no significant impact" mantra for the far lesser operation hours. Mathematical realism is abandoned: Dramatically amplifying flight operations will severely escalate the probability of a significant deadly, destructive "impact."

This response will consider in detail the following EIS-omitted factors that are amplifiers of, and results of, accident risk. (See further detail below on each of the bulleted items).

Risk Conditions at OLFC

PFOS well contamination connection: There is an important causal connection between crash probability and the probability of water-table contamination by PFOS chemicals. Plane incidents cause PFOS to be applied on the ground in large quantities. Crash risks are discussed in detail in COER Comment #7 and related appendices. Any threatening plane *mishap* may prompt the use of toxic PFOS foam (still stored at OLFC and /Ault Field) to prevent a fire. Because a water table feeding the Coupeville water supply is right underneath the OLFC, the probability of PFOS contamination of the water table by its use on the field (or in the civilian vicinity) should also be calculated. (PFOS chemicals have already entered the water table from past activity so the probability is not zero.) This must be done by multiplying the probability of a fire threatening

mishap at OLFC by the probability that PFOS chemicals sprayed on the field will penetrate to the water table and contaminate it. This is a definite topic for the DEIS that was left out entirely.

The DEIS must state the risk of accidents and their secondary consequences. Dispersal into the water table of the fire-fighting Type B foam with health-endangering, toxic ingredients is one of these. Training and accidents have already injected PFOS chemicals into the Whidbey water table, rendering some vital citizen wells unusable, and endangering the Coupeville water supply (toxins present but barely below a dangerous level). These banned toxins are still being stored for emergency use on Whidbey; increased flight ops will amplify risk of their usage and thus endanger the water table that is directly under the OLFC.

**Citizens of Ebey's Reserve (COER) Comments:
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for Naval Air Station Whidbey Island**

Addendum 4:

Failure to Address Electromagnetic Warfare Training of Growler

Prepared for COER by [REDACTED]

The Navy has never been transparent about the use of OLF for electromagnetic warfare training and little mention has ever been made of the fixed emitter at OLF. COER had to FOIA documents from the Navy to find out about its usage but the Navy still provided little more than charts.

The placement, proposed placement, and usage of fixed and mobile emitters at various locations in Washington State (and elsewhere) has been treated like at least 3 different projects and kept primarily as EA's whenever possible. Yet it is clear that the use of this warfare training equipment by Growler pilots is all connected and has impacts on the civilian communities that they take place in and over. It is all Growler training and part of the Navy's efforts to consolidate and expand Growler training at NASWI. The new fixed tower emitter in Everett is triangulating electromagnetic emission toward the Olympic Peninsula, where they are proposing the new use of permitted mobile emitters on state and national forest roads. Electromagnetic emitters (mobile or fixed) are part of scheduled training hours for Growler pilots and do have singular and cumulative impacts on the region and Whidbey Island.

These impacts should be discussed in this DEIS and especially the fixed emitter at OLF should be discussed. The full impacts of the OLF emitter's usage and its impacts on the environment, wildlife, people and the pilots have not been analyzed nor revealed to the public since its placement in the late 1990's. Science, safety and regulations for electromagnetic emissions have improved and progressed since the 1990's.

Further, the Navy never adequately substantiated its need for non Defense Department lands, as was required by the 1988 Master Agreement; instead of proving that no DoD lands were available or suitable, it said using the Olympic Peninsula's public lands was for the purpose of saving \$4 to \$5 million dollars of jet fuel per year. Saving fuel is a good goal, but this reason does not prove that DoD lands were either unavailable or unsuitable, which was the primary requirement of the Master Agreement.

How does the Navy justify training flights doing electronic warfare on non-DoD public lands for which it never properly justified to the public its reasons for using?

On page 5-19 of the DEIS, electronic warfare is listed as a "relevant activity," and in the Abstract it states the proposed action would:

"...Increase electronic attack capabilities by adding 35 or 36 aircraft to support an expanded U.S. Department of Defense mission for identifying, tracking, and targeting in a complex electronic warfare environment."

So, with electronic attack being relevant to the DEIS, it can be assumed that a discussion on impacts from training with this suite of electronic attack weapons should be included.

The 200-page EA Warfare Training Range document covers a huge area of airspace, but only 875 acres of land were specifically named, between Everett and Mt. Baker. The lone ground-based emitter mentioned was located in Coupeville, and the number of annual training events for Growler jets proposed back in 2009 was 275. That's what the biological opinion evaluated. Not three mobile emitters and one fixed tower in 14 brand-new places, not 36 low-altitude Growler jets in areas previously not evaluated, not 2,900 Growler training events in the Olympic National Forest and another 2,100 elsewhere, for eight to 16 hours per day, 260 days per year.

The stated intent of the 2014 Electronic Warfare EA was to "turn out fully trained, combat-ready electronic attack crews." However, it also focused on the ground-based emitters and glossed over the airborne components of the training.

Nowhere do any Navy NEPA documents from the last 7 years discuss the risk of exposure to chronic downward-directed radiation from weaponized forms of directed energy aboard these jets, to civilians, wildlife and habitat.

The only discussion was a brief mention in the 2014 EA, in reference to radio transmitters on the mobile emitter trucks and the stationary transmitter at Pacific Beach in Everett. The Navy referenced a paper by Focke et al, and concluded that links from radiation exposure to leukemia were speculative, when in fact, that same paper stated unequivocally that there are direct links between radiation exposure and childhood leukemia. **Why is any mention or discussion of risks from exposure to electromagnetic radiation from Navy jets completely missing from all discussions of potential impacts?**

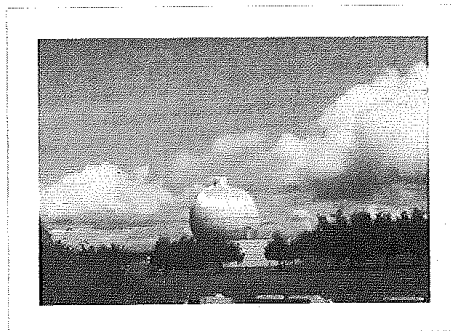
The fixed emitter at OLF, the fixed emitter tower being built in Everett (Pacific Beach) on Navy property, the mobile emitter trucks on the Olympic Peninsula are all part of the same proposed expansion of the EA-18G Growler trainings at NASWI and at OLF with the addition of 35/36 new Growlers. All of these electromagnetic emitters are here ONLY because of the Growlers sited at NASWI. These trainings are connected and must be assessed as a cumulative impact of electromagnetic impacts on not only Central Whidbey but also the lands and sea BETWEEN the emitters from Everett to the Olympic Peninsula.

An editorial published by the Everett Herald, March 19, 2015, challenged the Navy's attempts to allay civilian concerns about the impacts of electromagnetic emitters and Growler trainings with this equipment:

In addition to the annoyance and noise from increased jet flights over OLF and Ebey's Landing National Historical Reserve, the Olympic National Park and Olympic National Forest and the Colville and Okanogan-Wenatchee National Forests, there is also a lack of clarity from the Navy about the potential for harm from the electromagnetic signals used in the training. "In its own information about the proposal (for moving the Growler training from Idaho to Washington), the Navy attempts to minimize the risk from the signals, comparing them to the type of emissions from cellphones and Bluetooth devices. The emitters, when in use, would be 14 feet off the ground, directing the signals into the sky. The trucks themselves would be cordoned off in a 100-foot radius with signs reading, "Warning/Radio Frequency Hazard; Personnel Hazard Exists In This Area; Keep Moving." But accidental direction of the electronic signals could be a problem for any person, animal or bird in their path. A Navy spokesman told the Peninsula Daily News in October that "if someone is in the exclusion area for more than 15 minutes, that's a ballpark estimate for when there would be some concern for potential to injure, to receive burns." Clearly, this involves signals much stronger than your cellphone or Bluetooth device. Each truck's two-person crew would be on hand to tell people not to loiter, but that puts a lot of expectation on how attentive the crews would be."..... "The need for the Navy to train its fliers for their missions isn't being challenged, but the potential for harm to people and wildlife calls for conditions and an environment that offer better control and safety than are available in forest lands open to the public. One suggestion for a more suitable site: How about the 327,000 secured acres of Joint Base Lewis McChord's Yakima Training Center

OLF Stationary Electromagnetic Emitter

A fixed electromagnetic emitter is currently operational and located at OLFC for EA18-G Growlers practice training. The emitter at OLFC was installed in 1998 and is used on average 600 hours per year. The DEIS is silent on it's environmental impacts.



Yearly record of Fixed Emitter use at OLFC

OPERATIONS OF AN ELECTRONIC COMBAT TRAINING FACILITY AT OUTLYING FIELD COUPEVILLE, NAVAL AIR STATION WHIDBEY ISLAND, ISLAND COUNTY, WASHINGTON

Pursuant to Council on Environmental Quality Regulations (40 CFR Parts 1500-1508) implementing procedural provisions of the National Environmental Policy Act, the Department of the Navy gives notice that an Environmental Assessment (EA) has been prepared and an Environmental Impact Statement is not required for the construction and operation of an electronic combat training (ECT) facility at Outlying Field (OLF) Coupeville, Naval Air Station, Whidbey Island (NASWI), Island County, Washington.

The proposed action is to construct and operate an ECT facility capable of providing needed electronic combat training in established Military Operation Areas for aircrews stationed at NASWI. The proposed ECT facility would be located in the southwestern portion of OLF Coupeville and would consist of a radome resting on top of a single-story, 50-foot square building. The radome would house an electronic device called "ground threat signal generator" or Device AN/FSQ-T22. The total height of the structure would be about 45 feet above ground level. The proposed facility would also have an aircraft beacon, a parking area, and a security zone within a chain link fence. The proposed action is needed to complement the existing ECT facility at Seaplane Base, NASWI in supporting current and follow-on EA-6B hardware/software improvements and maximizing in-flight aircrew training in the Pacific Northwest.

Document photos from a FOIA from NASWI on Electromagnetic Emitter at OLF -

The Navy did not perform any studies to prove that there was no significant impact.



OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, D.C. 20350-2000

IN REPLY REFER TO

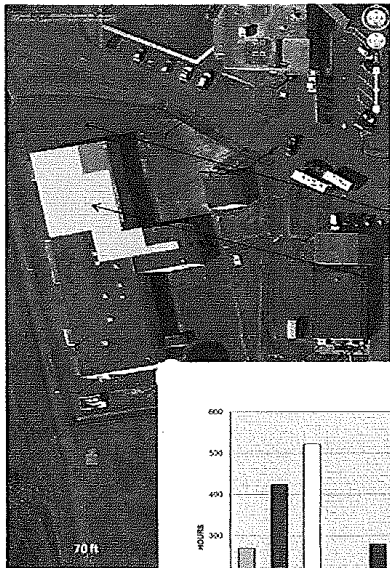
From: Chief of Naval Operations
To: Commanding Officer, Naval Air Station Whidbey Island

Subj: FINDING OF NO SIGNIFICANT IMPACT FOR THE CONSTRUCTION AND OPERATIONS OF AN ELECTRONIC COMBAT TRAINING FACILITY AT OUTLYING FIELD COUPEVILLE, NAVAL AIR STATION WHIDBEY ISLAND, ISLAND COUNTY, WASHINGTON

Ref: (a) CINCPACFLT ltr 5090 Ser N46541/2433 of 23 APRIL 1997
(b) OPNAVINST 5090.18
(c) Advisory Council on Historic Preservation ltr of 13 June 1997

Encl: (1) Notice of Availability of Environmental Assessment and Finding of No Significant Impact
(2) Finding of No Significant Impact

Installation & Operation of Fixed Emitter at Naval Station Everett, Pacific Beach, WA

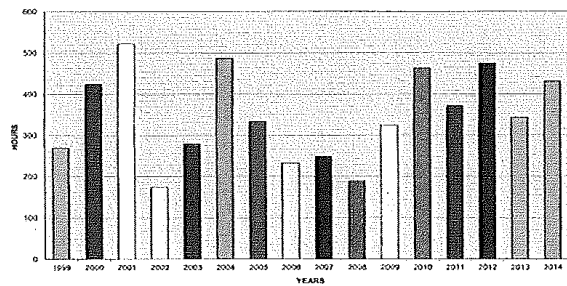


Naval Station Everett Annex Pacific Beach
Building 104 and ground use supporting
Fixed Emitter and MEWTS

Fence line and pavement extension to
support turn in area for MEWTS

Approximate area of building 104 to be used

Future location of fixed emitter and Shelter
YEARLY



To facilitate
Growlers at

training of
NASWI,

the Navy has proposed construction of a new permanent tower south of Building 104 (Figure above) in Everett, which is required to support a fixed emitter (MRES) at NS Everett Annex Pacific Beach. The 40-foot tower and fixed emitter would have a total height of about 66 ft. above ground level on a Navy-operated, controlled, and owned site, to which the public does not have access. The MRES is capable of generating an electromagnetic wave at frequencies ranging from 2 to 18 gigahertz (GHz). It can emit up to 64 simultaneous signals and can transmit in pulses or a continuous wave. The tower is being built tall enough so it can be pointed toward the Olympic Peninsula with little obstruction.

This new tower and fixed emitter are a result of the Navy's one-site Growler stationing and training at NASWI. This new stationary emitter along with the mobile emitters will impact civilians in the greater Everett region, including the southern part of Whidbey Island.

We really don't know how many people will be impacted because of lack of information from the Navy, research or any scientific studies of how often and when these devices will be used., or what their range is.

Additionally, counties of Washington State to be directly impacted by expanded Growler electromagnetic warfare training, including the proposed addition of 35/36 Growlers discussed in the DEIS (and additional Growlers not included in the DEIS but ordered by the DOD): in the Okanogan and Colville National Forests beneath the assigned airspace of the Olympic Peninsula and National forest, Okanogan and Roosevelt MOAs. These areas include the following 9 Counties: Island, Clallam, Ferry, Grays Harbor, Jefferson, Okanogan, San Juan, Skagit, and Stevens. The Navy does not include these in the overall/cumulative impacts in its DEIS.

Health Impacts are a Public Concern:

Dr. [REDACTED], a professor emeritus of biochemistry and medical sciences with Washington State University, has written several peer-reviewed papers on the subject of how electromagnetic radiation of various levels impacts human beings, as well as international lectures on the subject.

[REDACTED] refutes the claims by the Navy that "no significant impacts" will occur to wildlife or humans from their electromagnetic war games. He has provided reams of evidence, including his own scientific reports that document, in detail, the extremely dangerous impacts of even very low levels of the microwave and electromagnetic radiation that the Navy would be emitting during their war games.

■■■■s paper, titled "Electromagnetic fields act *via* activation of voltage-gated calcium channels to produce beneficial or adverse effects," outlines the impact of electromagnetic radiation on biological organisms, and was given the honor of being posted on the "Global Medical Discovery" site as one of the top medical papers of 2013
<<http://onlinelibrary.wiley.com/doi/10.1111/jcmm.12088/full>>.

According to ■■■■, a NASA study, and more than 1,000 other scientific reports and studies, the health impacts of even the Navy's lowest levels of electromagnetic radiation emissions are shocking. The NASA study lists dozens of human health impacts, and one of the tables in the report, titled, "Subjective effects on persons working in radio frequency electromagnetic fields," lists symptoms that include hypotension, exhausting influence on the central nervous system, decrease in sensitivity to smell, periodic or extreme headaches, extreme irritability, increased fatigability, and intensification of the activity of the thyroid gland.

A 2013 paper published in the journal Reviews on Environmental Health, titled "Radiation from wireless technology impacts the blood, the heart and the autonomic nervous system," lists a series of 14 different pleas from multiple scientists who state the need for much more vigorous action on the health effects from microwave EMFs <<http://www.bioportfolio.com/resources/pmarticle/746019/Radiation-from-wireless-technology-affects-the-blood-the-heart-and-the-autonomic.html>>.

"Carcinogenicity of radiofrequency," "The sensitivity of children to electromagnetic fields," "Exposure to extremely low frequency electromagnetic fields and the risk of malignant diseases - an evaluation of epidemiological and experimental findings," "Extremely low frequency electromagnetic fields as effectors of cellular responses in vitro: possible immune cell activation," and "Exposure to electromagnetic fields and the risk of childhood leukemia," to name just a few.

One report titled "Biological effects from electromagnetic field exposure and public exposure standards," published in the journal Biomedicine and Pharmacotherapy in 2008, concluded: "Health endpoints reported to be associated with ELF and/or RF include childhood leukemia, brain tumors, genotoxic effects, neurological effects and neurodegenerative diseases, immune system deregulation, allergic and inflammatory responses, breast cancer, miscarriage and some cardiovascular effects." The BioInitiative Report concluded that a reasonable suspicion of risk exists based on clear evidence of bioeffects at environmentally relevant levels, which, with prolonged exposures may reasonably be presumed to result in health impacts.

██████████ the Naval Air Station at Whidbey Island spokesman, recently admitted to Peninsula Daily news reporters that any antennas emitting electromagnetic energy produce radiation. "As a general answer, if someone is in the exclusion area for more than 15 minutes, that's a ballpark estimate for when there would be some concern for potential to injure, to receive burns," he said. He has made no comment about the electromagnetic emitter located at OLFC.

The US Air Force published the report, "Radiofrequency/Microwave Radiation Biological Effects and Safety Standards: A Review"

<<http://emfrefugee.blogspot.com/2014/09/radiofrequencymicrowave-radiation.html>>. Page 18 of the report states: "Nonthermal disruptions have been observed to occur at power densities that are much lower than are necessary to induce thermal effects. Soviet researchers have attributed alterations in the central nervous system and the cardiovascular system to the non-thermal effect of low level RF/MW radiation exposure." The report concludes, "Experimental evidence has shown that exposure to low intensity radiation can have a profound effect on biological processes." At the time that report was written, the standard for exposure was 50,000 mW/m². Today, the maximum exposure limit is 10,000 mW/m², yet even that level is more than 1 million times the allowable exposure limits published in the 2012 Biolinitiative Report.

Navy Admits Harmful Biological Effects:

On October 4, 1971, the Naval Medical Research Institute published a research report written by Dr. Zorach Glaser. The title of the report is "Bibliography of Reported Biological Phenomena ('Effects') and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation" < <http://www.stetzerizer-us.com/research-Naval-Medical-Research-Institute-Outline.html>>.

Given that the Navy continues to claim that their EMR warfare training exercises will have "no significant impact" on humans, it is interesting to note that their own research paper's abstract states:

More than 2,000 references on the biological responses to [microwave and] radio frequency and microwave radiation, published up to June 1971, are included in the bibliography. (Three supplementary listings bring the number of citation to more than 2,300.) Particular attention has been paid to the effects on man of non-ionizing radiation at these frequencies.

The Navy's paper lists well over 100 negative biological effects caused by microwave and radio frequency radiations, of which here is a partial list from their report:

corneal damage, tubular degeneration of testicles, brain heating, alteration of the diameter of blood vessels, liver enlargement, altered sex ratio of births, decreased fertility, sterility, altered fetal development, decreased lactation in nursing mothers, altered penal function, death, cranial nerve disorders, seizures, convulsions, depression, insomnia, hand tremors, chest pain, thrombosis, alteration in the rate of cellular division, anorexia, constipation, altered adrenal cortex activity, chromosome aberrations, tumors, altered orientation of animals, birds and fish, loss of hair, and sparking between dental fillings.

Dr. [REDACTED] WSU emeritus faculty, concludes,

"What the Navy is doing we have no idea because they don't tell us . . . but from what little they have told us, they are using a lot of pulse fields in wavelengths that are damaging to us, to biological organisms. They give us not one iota of evidence of what biological effects are produced by those fields, and don't even tell us what fields they are using. You only find empty statements of 'don't worry about these things.'"

COER notes the abundance of peer-reviewed, published scientific studies about the harmful effects to humans of electromagnetic radiation. [REDACTED] reports that a quick search on Google Scholar for "Electromagnetic fields risk to humans" produces over 63,000 results, most of which are published scientific studies that chronicle the deleterious impact of electromagnetic fields to the human organism. Some of Jamail's selected sites are (hit control click to go to the link):

- "Carcinogenicity of radiofrequency,"
- "The sensitivity of children to electromagnetic fields," which states, "Consistent epidemiologic evidence of an association between childhood leukemia and exposure to extremely low frequency (ELF) magnetic fields has led to their classification by the International Agency for Research on Cancer as a "possible human carcinogen."
- "Exposure to extremely low frequency electromagnetic fields and the risk of malignant diseases - an evaluation of epidemiological and experimental findings,"
- "Extremely low frequency electromagnetic fields as effectors of cellular responses in vitro: possible immune cell activation," and
- "Exposure to electromagnetic fields and the risk of childhood leukemia," to name just a few.

One study selected, titled "Leukemia and Occupational Exposure to Electromagnetic Fields:

Review of Epidemiologic Surveys," states in its abstract: "Results for total leukemia show a modest excess risk for men in exposed occupations, with an enhanced risk elevation for acute leukemia and especially acute myelogenous leukemia."

Another report titled "Biological effects from electromagnetic field exposure and public exposure standards," <<http://www.sciencedirect.com/science/article/pii/S0753332207002909>> published in the journal Biomedicine and Pharmacotherapy in 2008, concluded: Health endpoints reported to be associated with ELF and/or RF include childhood leukemia, brain tumors, genotoxic effects, neurological effects and neurodegenerative diseases, immune system deregulation, allergic and inflammatory responses, breast cancer, miscarriage and some cardiovascular effects. The BioInitiative Report concluded that a reasonable suspicion of risk exists based on clear evidence of bioeffects at environmentally relevant levels, which, with prolonged exposures may reasonably be presumed to result in health impacts.

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The report concludes, "Experimental evidence has shown that *exposure to low intensity radiation can have a profound effect on biological processes.*" At the time that report was written, the standard for exposure was 50,000 milliwatts per square meter. Today, the maximum exposure limit is 10,000 milliwatts per square meter, yet even that level is more than 1 million times higher than the allowable exposure limits published in the 2012 BioInitiative Report.

Electromagnetic Radiation Impacts Mammals:

This de-classified Army report on RF weapons outlines several ways that RF radiation can harm

mammals. One is thermal: burning and hyperthermia (heat stroke) inducing disorientation. "In prolonged hyperthermia, with temperatures over 40° C to 41° C, the brain suffers severe damage that usually leads to death." The size of the animal and the wavelength of the radiofrequency are most important. In the Rhesus monkey a frequency of 0.225 GHz at 10 W/kg of body weight caused the body temperature to increase to 42° C within 10-15 minutes. A lower dose of 5 W/kg caused the temperature to increase to 41.5° C in less than two hours. The convulsive threshold for rats is estimated to lie between 22-35 W/gm for one second.

A second method of incapacitating mammals with RF radiation is called "microwave hearing." Microwave hearing is the sensation of buzzing, ticking, hissing or knocking sounds that originate within the head from pulsed microwaves. There is no sound present. The threshold energy of the microwave auditory response in humans is a function of pulse width and frequency but also varies from individual to individual. For a frequency of 2.45 GHz, the incident energy density per pulse must equal or exceed 20 mJ/kg body weight with pulse widths between 0.5-32 microseconds. Not enough information is given about the mobile emitters to make a determination of this effect. The threshold for animals and birds is not known. The onset is immediate but only lasts as long as the exposure. In addition to disrupting hearing, there might also be an adverse psychological effect.

A third method for incapacitating mammals with RF radiation is disruption of neural control. The neurons are electrically stimulated in a synchronous manner. Electronic stimulation of neural synchrony can be achieved. At just the right frequency, pulse repetition rate and energy, seizure can result. "The condition thought to be necessary to produce [this effect is] an overall [pulse] repetition rate of 15 Hz. Such a field may be developed using a radar-like, high-peak power, pulsed source...The effective range could be hundreds of meters." This would vary from individual to individual.

Conclusions:

This DEIS insufficiently examines the environmental impacts of electromagnetic warfare training by EA18G Growlers that have changed and increased from the Prowler aircraft. As the Navy increases the number of Growlers at NASWI, it is logical to conclude that electromagnetic radiation impacts will also increase. The public has seen no information from the Navy on the health and safety consequences of these expansions. The public has a right to know.

To determine whether a single project is improperly segmented into multiple parts, courts have applied a four-part test that asks whether "the proposed segment (1) has logical termini; (2) has substantial independent utility; (3) does not foreclose the opportunity to consider alternatives;

and (4) does not irretrievably commit federal funds for closely related projects." Save Barton Creek, 950 F.2d at 1140 (citing Piedmont Heights, 637 F.2d at 439; applied in O'Reilly v. US Army Corp of Eng, 447 F3d 225(5th Cir. 2007)).

- (1) This precedent should be applied to the individual and cumulative electromagnetic emitter(s) impacts associated with the EA18G Growler trainings from emitters and aircraft.
- (2) The Navy has not provided "any evidence" to support their claims that electromagnetic frequencies (EMF) do not impact wildlife and humans deleteriously, and that shortfall must be addressed and the impacts delineated.
- (2) Growler expansion brings increased exposure to electromagnetic radiation.
- (3) Science shows cause for public concern regarding electromagnetic radiation. Emitters, whether stationary or mobile, should be challenged until proof of safety is provided through analysis.
- (4) Continued use of the OLFC fixed emitter should be challenged on health and safety concerns since the Navy's only and last public environmental assessment was provided in 1998 with a Navy decision of 'no significant impact' – almost 20 years ago. Science shows cause for public concern regarding electromagnetic radiation use by the Growlers and the Growler trainings.

**Citizens of Ebey's Reserve (COER) Comments:
Draft Environmental Impact Statement
for Naval Air Station Whidbey Island**

Addendum 5:

COER Comments to [REDACTED] on Section 106 Process

Date: September 1, 2016

To: NAS Whidbey Island Cultural Resources Program Manager [REDACTED],
[REDACTED]

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations in 36 CFR Part 800, Naval Air Station Whidbey Island (NAS Whidbey Island) is continuing consultation first requested on 20 October 2014 and now is asking for comments on this proposed action.

From: Citizens of Ebey's Reserve (COER)

Regarding: Request for Section 106 Comments on the Proposed Definition of the Area of Potential Effect for the Continuation and Increase in Ea-18G Growler Operations at Naval Air Station, Whidbey Island, Island County, Washington.

COMMENTS:

Problems with the DNL Metric

Most of the day-night noise level (DNL) annoyance research has been derived from studies of commercial airports, which generally have frequent daily traffic, but lower maximum sound levels. Extrapolating that database to military jets impacting civilian residents is highly questionable. [REDACTED] (Standards Director, Emeritus, Acoustical Society of America, Schomer and Associates, Inc.) questions "*the substantiated extension of DNL into untested and unsubstantiated regions so loud that hearing protection and warning signs are required.*" He goes on to point out that a "*65 DNL for a year is 91 dB if it comes in one day, 140 dB in 1*

second, and 170 dB in 1 ms-permanent hearing loss and damage to the ear but no [DNL] impacts.” That clearly shows how and why the DNL is a worthless metric to evaluate health impacts on humans or wildlife.

Indeed, as stated in USACHPPM (1998; page 28),¹ “although the DNL has been emphasized by the DoD and especially the Army as the primary noise exposure metric, this metric applies to community annoyance and is seldom related to behavioral or reproductive effects of wildlife. Hence the DNL metric is of no use or value to evaluate Growler noise impacts on visitors to the Reserve or on its wildlife, or historic structures.

DNL means Day Night Average Sound Levels: A complicated formula is used to figure DNLs but, simply put, it means that quiet times are averaged, with noisy times. This has the effect of making the noisy times seem not so noisy.

DNLs don’t tell us what the loudest event is in a 24-hour period nor how many noisy events there may be in a 24-hour period. Our ears don’t average noise over 24-hours ---We hear and react to each noise as a separate event.

In looking strictly at annoyance, it similarly follows that an annual average DNL as applied to thousands of annual Reserve visitors is not useful or germane because Growlers have no ‘annoyance’ effect when not flying overhead and a huge effect when they are.

DNL Flaws in 2005 Finding of No Significant Impact

Other problems impact the Navy’s proposed continuance and expansion of Growler flights, as well; i.e., inappropriate data was used to produce the 2005 EA “finding of no significant impact” (FONSI) for the completed transition of Prowlers to Growlers at OLFC in 2013.

The five problems discussed below apply significant question to the validity of the DNL noise contours provided for OLFC by Commander Moore. If those problems were corrected and revised, it would expand the areas of land encompassed within each contour. It follows that

¹ *Ecological Risk Assessment Framework for Low-Altitude Overflights by Fixed-Wing and Rotary-Wing Military Aircraft*. January 2000. Rebecca A. Efroymson (Oak Ridge National Laboratory), Winifred Hodge Rose and Sarah Nemeth (U. S. Army Construction Engineering Research Laboratory), and Glenn W. Suter II (U. S. Environmental Protection Agency). Research sponsored by the Strategic Environmental Research and Development Program of the U. S. Department of Defense under Interagency Agreement 2107-N218-S1 under contract DE-AC05-00OR22725 with UT-Battelle, LLC. Publication No. 5010, Environmental Sciences Division, ORNL. <https://www.researchgate.net/publication/252522677>

increased Growler activity at OLFC would further expand the 65 DNL area and encroach even further upon the quiet cultural soundscape and historic buildings and residences of the Reserve, and the intention and purpose of the Ebey's National Historical Reserve.

The following five problems involve fallacious information the Navy data provided to Wyle for its noise study² as refuted by actual data obtained by COER via the Freedom of Information Act:

- 1) Wyle indicated that use of OLFC paths 14 and 32 are split 50:50 (Table A-1 on page A-6), even though use of path 14 has never been near 50%, but instead 5% to 25%. The Navy affirmed in the lawsuit trial record and as iterated by Judge Zilly in his decision,³ "*...it is apparent that flight path 14 is now rarely used for FCLP operations....*" So, path 32 has and will continue to be used almost exclusively. This 50:50 misrepresentation, if corrected, would expand the impact area over the Reserve and adjacent Admirals Cove.
- 2) Wyle also indicated its use of OLFC after 10 PM is 5.8% of the landing practices, and Wyle based its day-night⁴ sound level (DNL) analysis on that percentage. However, rather than 5.8%, the actual after 10 PM operations since 2007 averaged 41%, and as high as 63%. Wyle's DNL contours are lower than they should be because they are based on the false 5.8% metric.
- 3) The 2005 EA FONSI was also greatly influenced by the dubious selection of a single year, 2003, to represent the number of FCLP operations over the 6 years prior to the 2005 EA. The EA stipulated that Navy plans for 2013 and beyond called for 6120 operations annually at OLFC, the so-called "*projected operations.*" If the historical base of operations (the so-called "*existing condition*") was greater than the *projected* 6120, then the *projected* number of operations would be less than the *existing condition*. That, in turn, would make the *projected operations* produce less noise than the historical *existing condition*. and that would help establish no environmental impact for the transition to Prowlers. So, the Navy selected 2003 as the base year, which at 7682 operations was the only year of the six preceding years that exceeded the 6120 *projected* operations. Had any year other than 2003 been selected for the comparison year (e.g., 2002 = 4100 operations, or 2001 = 3568, or an average of 2002-2004 = 5117), then the *existing condition* would have been lower than the 6120 *projected operations* and produced an increase in noise, rather than a decrease. No respectable statistician would establish a

² Aircraft Noise Study For Naval Air Station Whidbey Island and Outlying Field Coupeville Washington, WR 04-26, Wyle, October 2004

³ Citizens of Ebey's Reserve v. U. S. Navy,

⁴ Night operations drive the DNL level way up due to mathematical weighting.

baseline from a single stochastic year, especially given the wide variation in annual operation totals.

- 4) In 2005 the Navy asserted in their 2005 AICUZ document that on approach to touchdown Growlers are at 114 decibels (dB) at 1000 feet above ground, or 7 dB louder than Prowlers (107 dB). But the 2012 Navy feed to Wyle somehow found that Growlers on approach were 109 dB and the Prowler was 111 dB. So, in those 7 years between 2005 and 2012, the Growlers inexplicably grew 5 dB quieter and the Prowlers grew 7 dB louder. Which of those disparate Prowler vs. Growler metrics is believable, if either, in light of the above? Note too that Growlers, on their approach and takeoff on either path, cross the most populous portion of the racetrack, often at 200-400 feet above rooftops. By comparison, the FAA with its quieter commercial aircraft standards strictly requires no flyovers be less than 500 feet over people or homes.
- 5) The well-established standards for calculating an annual 24-hour average DNL is different for airports used daily versus those used intermittently. Those used daily are to be calculated based on all 365 days of use in the year; DNLs for airstrips used intermittently are to be based on just the “busy days” of use. In other words, if the airport averages just 50 days of use per year, the DNL should be averaged over just those 50 days, not all 365 days of the year. Averaging OLFC use over 365 days would reduce the area under each noise contours, while use of 50 days would increase the areas. Yet the Navy has been unable to confirm how the DNLs were averaged, as requested by COER (July 3, 2016, letter). In essence Commander Moore indicated that the average could be an average of “busy days” only (i.e., all days OLFC was used in an average year) or an average over all 365 days in the average year. He wasn’t sure which. If the Navy used the 365-day averaging method, then the DNLs Commander Moore provided would likely understate the DNL, such that the 65 DNL contour might actually be close to 70 DNL, and the 60 DNL might be a close to 65 DNL.

Those five data irregularities have a profound effect on the assessment of environmental impacts related to the Prowler–Growler transition and the related 2005 EA’s dubious “finding of no significant impact” at OLFC. It follows that the contours Commander Moore provided for the Section 106 Process understate the 65 DNL area, which, in reality, extends further into Ebey’s Reserve than shown on current maps.

Problems with Modeling the DNL Contour

The modeling used to prepare the DNLs is also potentially problematic. The Navy has recently asserted it was not necessary to have on-site noise studies for OLFC in the current EIS process,

and have opted to use modeled (NOISEMAP) data instead. The contours provided for this Section 106 Process were derived from the 2005 NOISEMAP data.

Modeled data, however, can fail to reflect actual on-site measurements. A study of 36 sites around Raleigh–Durham airport⁵ found the modeled data consistently **underestimated** the actual on-site noise by 5–15 decibels; that is, the actual noise levels were roughly 50% to 150% louder than the NOISEMAP (1991–1998) and INM (1999–2002) models had indicated.

ISO Invalidates 65-dB DNL Threshold

In 1992 the Federal Aviation Administration (FAA), based on a synthesis of 1978 studies, established in Regulation Part 150 that a maximum average DNL of 65 dB or above is incompatible with residential communities, and that communities in affected areas may eligible for mitigation such as soundproofing.

The 65 DNL was established in 1992 by the Federal Interagency Committee on Noise (FICON) from a dose/response curve showing that at 65 DNL 12.3% of the population is highly annoyed by aircraft noise. It hence was established as the point at which the FAA considers significant noise impact to begin. Based on that science, Congress adopted 12.3% as the threshold that should not be exceeded, and 65 DNL became the standard.

The Navy’s Air Installations Compatible Use Zones (AICUZ)⁶ similarly adopted the 65 DNL for its land-use compatibility determinations concerning aircraft noise, noting the sources as the Federal Interagency Committee on Urban Noise, “Guidelines for Considering Noise In Land Use Planning and Control” (Reference (km)) as endorsed by FICON in the “Federal Agency Review of Selected Airport Noise Analysis Issues” (see section 2.b in <http://www.dtic.mil/whs/directives/corres/pdf/416557p.pdf>).

New scientific information, however, now shows the 1978 studies and dose/response curve were flawed, making the 65 DNL invalid. On March 9, 2016, the International Organization for Standardization (ISO) – an independent, non-governmental organization of 162 national standards bodies – published a revision of ISO Standard on measurement and assessment of environmental noise. The revised ISO standard reflects 5 years of analysis by an ISO technical committee, which produced the new dose/response curve based on recent research. An American National Standards Institute (ANSI) version of the ISO standard has been developed, which

⁵ *Technical Report on Preparation of Day-Night Sound Level (DNL) Contours of Aircraft Noise During 2003 Raleigh-Durham International Airport North Carolina*. March 2005. HMMH Report 295097.001 . Harris Harris Miller & Hanson, Inc., 15 New England Executive Park, Burlington, MA 01803
http://198.1.119.239/~flyrduco/rduaircraftnoise/noiseinfo/downloads/RDU_2003_DNL.pdf

⁶ AICUZ Study Update for Naval Air Station Whidbey Island’s Ault Field and Outlying Landing Field Coupeville, Washington. Final Submission. March 2005. (This study was produced by The Onyx Group of Alexandria, VA and San Diego, CA, under the direction of the NAVFAC Southwest)

further mirrors ISO findings and validates the pervasive concurrence of noise experts. To be consistent with 12.3% annoyance, the correct standard needs to be reduced to 55 DNL.

The technical team's findings show that at 65 DNL, actually 28% of individuals will be highly annoyed by aircraft noise, rather than the old prediction of 12.3%, or about twice that predicted by the old dose/response curve. So, to achieve the congressional limit of 12.3%, the FAA will need to adopt the 55 DNL standard and can no longer hold up the old standard as scientifically valid.

The 65 DNL underestimates by nearly 50% the annoyance impacts among Ebey's Reserve visitors and residents. So, to comply with 12.3% standard, the attendant contour needs to be 55 DNL, which will therefore encompass a much larger area of the Reserve. And in that regard, as discussed above, the existing 55 DNL contour in the maps provided by Commander Moore is smaller than it would be if corrected for data anomalies.

OLFC Violates Navy's Own Encroachment Guidelines

During a recent attempt to build an outlying field in eastern North Carolina, the Navy sought 30,000 acres of relatively undeveloped land in order to comply with its AICUZ land-use guidelines. By comparison at only 700 acres OLFC falls 29,300 acres short. This is why, in 1987, a Navy planning document (Navy document 101) examined the status of OLFC for future use and called for alternatives to OLFC be investigated by the Navy because of the surrounding encroachment. Instead, the Navy administrators issued a permanent waiver for the use of OLFC.

As a result of the Navy's self-issued waiver, the 65 DNL contour includes much of the Reserve with its historic farms and homes, as well as the adjacent residential area and several state and local parks, a well-used children's athletic field and dog park, a youth shelter, County re-cycling Center, and a Transportation Center with above-ground fuel tanks. And of course, when the Growlers are practicing at OLFC all these areas are highly impacted by the loudest noise imaginable, juxtapose against the expected natural beauty and soundscape of the Reserve.

Because of an interagency agreement among the U. S. Fish and Wildlife Service, the National Park Service, and the Bureau of Land Management with the Federal Aviation Administration, it has imposed a voluntary altitude restriction of 2000 feet above ground level for overflights crossing land administered by the Department of the Interior. The Department of Defense is not bound by this agreement, and policies regarding lands near DoD installations are typically negotiated locally. However, OLFC flight paths are at less than 1000 feet and in some areas 200 to 500 feet above ground level.

Both OLFC flight paths (14 and 32) require these low-level (200–1000 feet) flight altitudes. As explained by this Oak Ridge National Laboratory Report, this violates federal regulation the Department of Defense is supposed to honor but ignores at OLFC:

The military services are committed to safety and to minimizing the collateral noise associated with low-level flight training. The U. S. Air Force, for example, has set numerous restrictions and tailored its training to reduce noise as much as possible. The DoD in general, in addition to following its own flying rules of low-level altitudes and airspeed, also follows those in Federal Aviation Regulation 91.79 which states that no plane may fly closer than "500 ft [152 m] from any person, vessel, vehicle, or structure." (USAF Fact Sheet 96-17) In addition, because of the greater potential for human annoyance during sleeping hours, low-level flying by military fixed-wing aircraft generally occurs during daylight hours; low-level flying near densely populated areas is prohibited.⁷

DNL Inappropriate Health Impact Metric

The DNL metric used to index annoyance is not the appropriate metric to evaluate impacts of toxic noise on health any more than the average wind speed in New Orleans throughout the year of 2004 is relevant to understanding the damage done by Hurricane Katrina. The Navy's 2005 AICUZ (pages 4-6) clearly states as much (emphasis added):

"However, individuals do not "hear" DNL. The DNL contours are intended for land use planning, not to describe what someone hears when a single event occurs. Individual or single noise events are described in terms of the Sound Exposure Level (SEL) in units of dB [decibels]⁸. SEL takes into account the amplitude of a sound and the length of time during which each noise event occurs. It thus provides a direct comparison of the relative intrusiveness among single noise events of different intensities and durations of aircraft overflights.

In that statement, "what someone hears" means "what someone experiences" because hearing produces an intertwined psychological, physical, and physiological reaction to sound, and that biological reaction includes reactions to the sound vibrations that penetrate into the entire body

⁷ *Ecological Risk Assessment Framework for Low-Altitude Overflights by Fixed-Wing and Rotary-Wing Military Aircraft*. January 2000. Rebecca A. Efromyson (Oak Ridge National Laboratory), Winifred Hodge Rose and Sarah Nemeth (U. S. Army Construction Engineering Research Laboratory), and Glenn W. Suter II (U. S. Environmental Protection Agency). Research sponsored by the Strategic Environmental Research and Development Program of the U. S. Department of Defense under Interagency Agreement 2107-N218-S1 under contract DE-AC05-00OR22725 with UT-Battelle, LLC. Publication No. 5010, Environmental Sciences Division, ORNL. <https://www.researchgate.net/publication/252522677>

⁸ Noise is measured on a log scale in decibel (dB) units. Loudness is a measurement index of the sound we perceive, and hence how it affects our psyche and functionality; sound pressure intensity is the more important metric when it comes to hearing damage and pressure impacts on the body.

(just as it rattles buildings). Low-frequency sounds are more intense. So, to evaluate the biological complement of noise effects on health, the Navy admits that single noise event metrics (e.g., *sound exposure levels* or SELs), not DNLs, are the appropriate metrics of ubiquitous use in medical research to evaluate noise–health impacts.

In 2013, COER engaged an independent noise study (JGL Noise Study #1⁹) to obtain actual on-site Growler noise data at OLFC (report is available on request). We commissioned the JGL study, rather than simply accept the computer-modeled data used by Wyle Labs because the Navy refused to conduct on-site recordings and modeled DNLs have been shown to be inaccurate. A study of 36 sites around Raleigh–Durham airport¹⁰ found the modeled data consistently underestimated the actual DNLs from on-site noise measurement by 5-15 dB.

The JGL sound data were gathered at five locations around OLFC while Growlers conducted FCLPs on Path 32. One site was directly under the approach over Admirals Cove and another was at a youth ballpark (Rhododendron Park) adjacent to and under the takeoff path, a third was at Ebey's Landing, and the fourth was in farm lands within the Reserve. At each site about 30 Growler flyovers were recorded, and sound levels for each such flyover at all four outdoor sites were very similar having sound exposure levels of 122 to 128 dBA for a recorded session.

At the ballpark/playground for example, Lilly found that had parents and children been present they would have experienced in one 40-min FCLP session (30 flyovers) a cumulative 2.25 minutes of noise over 100 dB or about 1 minute over what EPA has identified as a noise dose sufficient to cause permanent hearing loss. That is, if someone in a 24-hour period is exposed to 1.5 minutes of noise over 100 dB, the EPA indicates that individual will likely suffer some permanent hearing loss. The same is generally true for those visiting portions of the Reserve that were measured. Repeat exposure adds to the loss each time.

This is reinforced by the National Institute for Occupational Safety and Health (NIOSH). They assert that above a critical noise level, the mechanism of hearing damage changes from one based on cumulative noise exposure (i.e., the combination of magnitude and duration of sound) to a mechanism based on sound pressure intensity alone, regardless of duration. They estimate 115 to 120 dBA as the critical noise level at which human hearing is subject to a permanent hearing threshold shift.

⁹ Whidbey Island Military Jet Noise Study, JGL Acoustics report to David Mann, June 10, 2013, available at <http://citizensofdebeyreserve.com/References/Files/JGL%20Noise%20Report.pdf>

¹⁰ Technical Report on Preparation of Day-Night Sound Level (DNL) Contours of Aircraft Noise During 2003 Raleigh-Durham International Airport North Carolina. March 2005. HMMH Report 295097.001 . Harris Harris Miller & Hanson, Inc., 15 New England Executive Park, Burlington, MA 01803
http://198.1.119.239/~flyrduco/rduaircraftnoise/noiseinfo/downloads/RDU_2003_DNL.pdf

The Navy has argued that the 2013 JGL noise study lacked statistical robustness because it was a stochastic one-time sample that might lack repeatability due to weather. That possibility lacks credibility because all sites were well within one mile of the jet path; Lilly explained it this way:

Temperature profiles, humidity, and wind all can affect the resulting sound level, but these environmental effects are insignificant unless the listener is at least a mile or more away from the source. The greater the distance, the greater the effect. Sometimes the environmental conditions will cause the noise level to increase by 10 dB (or more) and other times it might decrease the level by 10 dB (or more). Atmospheric conditions will have no impact on the areas directly below (or within a mile of) the flight patterns. (Jerry Lilly, JGL Acoustics)

To address the possibility that the May 2013 JGL noise sampling was atypical of routine FCLPs at OLFC, COER again commissioned Lilly to conduct a second set of samples in February 2016 with repeat sampling at the two of the same sites and two additional sites not sampled in 2013 (also available at <http://citizensofbebysreserve.com/LinksAndFiles.html>).

Samples at the 2016 repeated sites produced almost identical results with the 2013 measurements, while the two new sites showed that noise was extremely consistent across the full approach path above Admirals Cove. The consistency (i.e., the standard deviation was very low) between the two independent sampling periods show that the JGL measurements were reliable and valid, as explained by Lilly:

The primary purpose for this study was to determine if there is any significant difference in the measured noise levels when compared with the data collected in 2013. ...The fact that the measured change from 2013 to 2016 is less than half of the standard deviation of the maximum noise level within a single session suggests that the difference is insignificant. <JGL Acoustics>

It is also noteworthy that the JGL sound exposure levels (SELs) at position 1 and 6, which are under the path 32 approach over Admirals Cove) are very similar to the approach sound exposure levels (SELs) for Growlers stated in the 2005 AICUZ.

Further, based on a Navy study (Wyle Aircraft Noise Study dated October 2012), the Growler produces more low-frequency noise, on average 11 decibels, than the Prowler aircraft previously used by the Navy at Whidbey. This increased low frequency noise has a greater impact on areas further from the base (i.e., San Juan Islands) because it travels further than high frequency noise. © 2005 Acoustical Society of America.

COER also retained a well-known environmental and occupational health physician, Dr. James Dalgren, professor at UCLA and on the staff at Cedars Sinai Hospital in Los Angeles, to review the Lilly and Wyle sound data and advise as to the attendant health risks. His conclusion in July 2014 is that "*the Navy has created a public health emergency at Central Whidbey Island.*" He went on to say:

"If there was a poisonous gas cloud over Central Whidbey and people were falling over dead, they would know why. But because the health impacts are more gradual and cumulative most citizens do not yet know why they are suffering more strokes, more severe strokes, strokes at a younger age, cardiovascular events such as arrhythmias, heart attacks, hypertension, psychological damage such as anxiety, depression and panic attacks, along with sleep disorders, weight gains, hearing loss, tinnitus, and in children, especially, troubling learning disorders and attention deficit disorder."

As per state and national guidelines and law addressing noise exposure, Coupeville has sustained noise levels above the "community exposure level" threshold. This is reflected in a review of the scientific literature on noise-health studies by experts at the University of Washington, which confirms that public health is a real issue of great concern under OLFC's jet shadow. All of that extensive research information has been compiled and is available at http://citizensofebeysreserve.com/Files/Community%20Aircraft%20Noise_A%20Public%20Health%20Issue.pdf.

It is clear that visitors to the Reserve and its surrounds are put at health risk due to the toxic noise levels they can be exposed to. Increased Growler operations will only exacerbate those risks.

Low-Frequency Noise: Growler Worse than Prowler

The Growler sound profile is substantially different from the Prowler. From the Navy's own website: "The EA-18G has more low frequency content than the Prowler it is replacing. Close to the airfield, there might be a slight increase in potential for noise-induced vibration in areas where the peak sound levels exceed 110 dB."

As mentioned above, based on a Navy study (Wyle Aircraft Noise Study, October 2012), the Growler produces more low-frequency noise than the Prowler. Low-frequency noise has a greater impact on areas because it travels further than high frequency noise.

This low-frequency noise (LFN) has adverse impacts on both human health and historic building structures, and because this sound travels much further, it has potential to impact structures well outside of the current FCLP flight patterns of the OLFC pathways 14 and 32. This could be a cause for serious preservation concerns in the town of Coupeville, Washington State's second oldest town, and recognized for its large number of fine examples of Victorian houses.

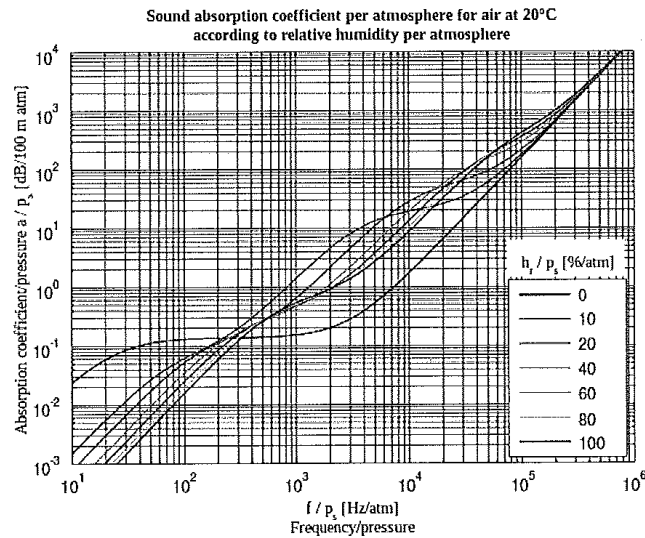
The reason low-frequency sound travels further has to do with what's stopping the sound. Sound

is a pressure wave vibration of molecules. Whenever you give molecules a "push" you lose some energy to heat. Because of this, sound is lost to heating of the medium it is propagating through. The attenuation of sound waves is frequency-dependent in most materials.

https://en.wikibooks.org/wiki/Engineering_Acoustics/Outdoor_Sound_Propagation

This means that low frequencies are not absorbed at nearly the same rate as high frequencies, so low frequencies travel further through air. See [Wikipedia for the technical details and formulas](#) of acoustic attenuation.

Here is a graph of the attenuation of sound at difference frequencies (accounting for atmospheric pressure and humidity):



From Physics Stack Exchange

Another effect that affects sound propagation, especially through walls, and other relative hard surfaces is reflection. Reflection is also frequency-dependent. High frequencies are better reflected than low frequencies, which are able to pass through a barrier.

All noise consists of pressure fluctuations in the air. For LFN these fluctuations occur between 20 and 160 times per second. Most everyday sounds fluctuate much faster than this (up to 16 thousand time per second), so the term "low frequency" means that the fluctuations are relatively slow compared with other types of sound. Said another way, in audiology, the measured range is restricted to the frequencies relevant to speech 125–8000 Hz (i.e., SI symbol for hertz, meaning

“frequency” or specific to sound, “cycles per second”). Low-frequency sound may be loosely defined as having frequencies below this range.

Sounds in this frequency range would typically be heard as a low rumble. Sometimes there is also a sensation of vibration or pressure on the ears. The scientific way of writing the frequency range is 20Hz to 160Hz.

According to Mireille Oud, a medical physicist in an article *Low-Frequency Noise: a biophysical phenomenon*, “there is no shielding against LFN. Since LFN propagation is mainly structure-borne, closing doors and windows is not effective. Earplugs are of no use, because LFN bypasses the eardrum.”¹¹

Examples of Frequency & Effects on Human Health

The effects of LFN on human health have been widely documented; the following are examples:

7 Hz: Supposedly the most dangerous frequency corresponding with the median alpha-rhythm frequencies of the brain. It has also been alleged that this is the resonant frequency of the body’s organs therefore organ rupture and even death can occur at prolonged exposure.¹²

1–10 Hz: “Intellectual activity is first inhibited, blocked, and then destroyed. As the amplitude is increased, several disconcerting responses have been noted. These responses begin a complete neurological interference. The action of the medulla is physiologically blocked, its autonomic functions cease.”¹³

43–73 Hz: “...lack of visual acuity, IQ scores fall to 77% of normal, distortion of spatial orientation, poor muscular coordination, loss of equilibrium, slurred speech, and blackout”.¹⁴

50—100 Hz: “...intolerable sensations in the chest and thoracic region can be produced—even with the ears protected. Other physiological changes that can occur include chest all vibration and some respiratory rhythm changes in human subjects, together with hypopharyngeal fullness (gagging). The frequency range between 50 and 100 Hz also produces mild nausea and giddiness at levels of 150–155 dB, at which point subjective tolerance is reached. At 150–155 dB or 0.63–1.1 kPa (Pa is the SI symbol for pascal or pressure/stress; k = kilo or 1000), respiration-

¹¹ Mireille Oud, *Low-frequency Noise: a biophysical phenomenon*, Presented at Congress “Noise, Vibrations, Air Quality, Field & Building”, 6 November 2012, Nieuwegein, The Netherlands.

¹² Organ Music Instills Religious Feelings, by Jonathan Amos, 9/8/2003

¹³ Gavreau V., “Sons graves intenses et infrasons” in: *Scientific Progres – la Nature (Sept. 1968) p. 336-344*

¹⁴ Gavreau V., “Sons graves intenses et infrasons” in: *Scientific Progres – la Nature (Sept. 1968) p. 336-344*

related effects include substernal discomfort, coughing, severe substernal pressure, choking respiration, and hypopharyngeal discomfort.”¹⁵

100 Hz: At this level, a person experiences irritation, “mild nausea, giddiness, skin flushing, and body tingling.” Following this, a person undergoes “vertigo, anxiety, extreme fatigue, throat pressure, and respiratory dysfunction.”¹⁶

In researching impacts of low-frequency sound, numerous references were found, both old and recent, to demonstrate the well-known characteristics and adverse impacts of low-frequency sound—not assessed by the Navy in its Environmental Assessments (EA) in regard to the EA-18G Growler.

The research strongly supports serious health effects of LFN like vertigo, disturbed sleep, stress, hypertension, and heart rhythm disorders. An excerpt¹⁷ had this to say:

Although the effects of lower intensities of low frequency noise are difficult to establish for methodological reasons, evidence suggests that a number of adverse effects of noise in general may be greater for low frequency noise than for the same noise energy in higher frequencies: loudness judgments and annoyance reactions are greater for low frequency noise than other noises for equal sound pressure level regardless of which weighting scheme is employed (Goldstein, 1994); annoyance is exacerbated by rattle or vibration induced by low frequency noise; speech intelligibility may be reduced more by low frequency noise than other noises (except those in the frequency range of speech itself because of the upward spread of masking) (Pickett, 1959; Loeb, 1986).

The following excerpts are from a study¹⁸ summarizing 25 years of research on health impacts pertaining to LFN:

Abstract: Respiratory pathology induced by low frequency noise (LFN, < 500 Hz, including infrasound) is not a novel subject given that in the 1960's, within the context of U.S. and U.S.S.R. Space Programs, other authors have already reported its existence. Within the scope of vibroacoustic disease (VAD), a whole-body pathology caused by excessive exposure to LFN, respiratory pathology takes on specific features. Initially, respiratory pathology was not considered a consequence of LFN exposure; but today, LFN can be regarded as a major agent of disease that targets the respiratory system. The goal of this report is to put forth what is known to date on the clinical signs of respiratory pathology seen in VAD patients.

¹⁵ Acoustic Trauma: Bioeffects of Sound, by Alex Davies

¹⁶ Gavreau V., “Sons graves intenses et infrasons” in: *Scientific Progres – la Nature* (Sept. 1968) p. 336-344

¹⁷ Stalker, From a Short History of Sound Weapons Pt2: Infrasound, January 14, 2008

¹⁸ Respiratory pathology in vibroacoustic disease: 25 years of research, Branco NA¹, Ferreira JR, Alves-Pereira M.

The methods explain, "Data from the past 25 years of research will be taken together and presented..." and the results section goes on to state:

In persons exposed to LFN on the job, respiratory complaints appear after the first 4 years of professional activity. At this stage, they disappear during vacation periods or when the person is removed from his/her workstation for other reasons. With long-term exposure, more serious situations can arise, such as, atypical pleural effusion, respiratory insufficiency, fibrosis and tumours. There is no correlation with smoking habits. In LFN-exposed animal models, morphological changes of the pleura, and loss of the phagocytic ability of pleural mesothelial cells (explaining the atypical pleural effusions). Fibrotic lesions and neo-vascularization were observed along the entire respiratory tract. Fibrosis lesions and neovascularisation were observed throughout the respiratory tract of the animals seen. Pre-malignant lesions, metaplasia e displasia, were also identified.

And the authors go on in the discussion to explain, "LFN is an agent of disease and the respiratory tract is one of its preferential targets. The respiratory pathology associated with VAD needs further in-depth studies in order to achieve a greater understanding, and develop methods of pharmacological intervention."

Excerpts from another publication: Noise-induced extra-aural pathology: a review and commentary, Alves-Pereira M¹⁹ further define LFN health effects.

Abstract: The focus of this review paper will be the effects of acoustic phenomenon (noise), characterized by large pressure amplitude ≥ 90 dB and low frequency (≤ 500 Hz) (LPALF) on humans and animal models. Current concepts imply the assumption that such LPALF noise impinges only on, or through, the somatic medium of the auditory system. As a consequence of this assumption, the effect of noise on humans is only regulated for purposes of hearing conservation. Guidelines and regulations governing occupational noise assessments are biased toward the subjective human perception of sound. The author will not make the assumption that airborne acoustic phenomena impacts only on the auditory system, and will present a literature review providing evidence for such position. The purpose of this review paper is to defend the existence of extra-aural, noise-induced pathology, particularly the vibroacoustic disease; and to advance the recognition that the respiratory tract could very well be a target organ of this environmental stressor.

An epidemiological survey¹⁹ examined low frequency noise from plant and appliances in or near domestic buildings by comparing to a control group of dwellings had comparable conditions to the test group except that there was no low frequency noise.

¹⁹ Alves-Pereira M: Noise-induced extra-aural pathology: a review and commentary, 1999
 Mirowska and Mroz. 2000. As reported in <https://www.wind-watch.org/documents/review-of-published-research-on-low-frequency-noise-and-its-effects/>

There were 27 individuals in the test group and 22 in the control group. The test group suffered more from their noise exposure than the control group did (as indicated in the table below); they were less happy, less confident and more inclined to depression, among others.

Symptom	Test group %	Control group %
Chronic fatigue	59	38
Heart ailments anxiety, stitch, beating palpitation	81	54
Chronic insomnia	41	9
Repeated headaches	89	59
Repeated ear pulsation, pains in neck, backache	70	40
Frequent ear vibration, eye ball and other pressure	55	5
Shortness of breath, shallow breathing, chest trembling	58	10
Frequent irritation, nervousness, anxiety	93	59
Frustration, depression, indecision	85	19
Depression	30	5

The World Health Organization recognizes the special place of low frequency noise as an environmental problem. Its publication on Community Noise (Berglund et al., 2000) makes a number of references to low frequency noise, some of which are as follows:

"For noise with a large proportion of low frequency sounds a still lower guideline (than 30dBA) is recommended"

"When prominent low frequency components are present, noise measures based on A-weighting are inappropriate"

"Since A-weighting underestimates the sound pressure level of noise with low frequency components, a better assessment of health effects would be to use C-weighting"

"It should be noted that a large proportion of low frequency components in a noise may increase considerably the adverse effects on health"

"The evidence on low frequency noise is sufficiently strong to warrant immediate concern"

World Health Organization, Guidelines for Community Noise, edited by B. Berglund, T. Lindvall, and D. H. Schueta, Cluster of Sustainable Development and Healthy Environment, Department of the Protection of the Human Environment, Occupational and Environmental Health, Geneva, Switzerland, 1999.

It is important to note that while the intensity of Growlers practice at OLFC is not constant but episodic, the sound intensity far exceeds anything like the intensity the subjects above experienced.

Impact of LFN on Structures and the Environment

According to Norman Lederman, MS, Director of Research & Development, Oval Window Audio²⁰, the commonly used A-weighted decibel metric, is scientifically inaccurate; the C-weighted metric should instead be used.

Low frequency noise pollution is an intrusive and unhealthy by-product of aviation. In addition, the current acceptance of A-weighted noise measurements largely understates the degree that low frequency noise pollution impacts the environment. For example, using A-weighting...a low frequency noise of 50 Hz, which vibrates homes and is felt in the body, is under measured by 30 dB as compared to 1.3 dB in measurements taken with C-weighting. Overall measurements are under measured by 7-8 dB A weighting as compared to C-weighting.....

Strong low-frequency components produced by aircraft may rattle doors, windows, and other contents of houses. These secondary physical sound sources may be much more annoying than the original primary low frequency component the low-frequency range of 15-400 Hz. It may then under predict perceived loudness by 7 to 8 dBA, relative to a 1,000 Hz target noise (Kjellberg & Goldstein, 1985).

And more recently a study²¹ of the impact of low-frequency sound on historic structures <Noise Pollution Clearing House, <http://www.nonoise.org/index.htm>, Report to Congress: Report of Effects of Aircraft Overflights on the National Park System EFFECTS ON CULTURAL AND HISTORIC RESOURCES, SACRED SITES, AND CEREMONIES, Chapter 4, September 4, 1994.>

focused on a soundscape regime at the low end of the frequency spectrum (e.g., 10–25 Hz), which is inaudible to humans:

[N]onindigenous sound energy may cause noise-induced vibrations in structures. Such low frequency components may be of sufficient magnitude to pose damage risk potential to historic structures and cultural resources. Examples include Anasazi cliff and cave dwellings, and pueblo structures of vega type roof construction. Both are susceptible to noise induced vibration from

²⁰ Norman Nederland, CO., USA in his article, *Aviation Low Frequency Noise of April 13, 2001*,

²¹ Louis C. Sutherland and Richard D. Horonjeff; Impact of low-frequency sound on historic structures 2005.

low-frequency sound pressures that excite resonant frequencies in these structures. The initial damage mechanism is usually fatigue cracking. Many mechanisms are subtle, temporally multi-phased, and not initially evident to the naked eye. This paper reviews the types of sources posing the greatest potential threat, their low-frequency spectral characteristics, typical structural responses, and the damage risk mechanisms involved.

Navy's Hearing Conservation Zones: Noise Equals Risk

If areas under the OLFC racetrack were a Navy site, many residents would mandatorily be part of a "*Hearing Conservation Program*"²² because they are in what the Navy calls a "*Hazardous Noise Area*."

The Navy identifies *hazardous noise areas* wherever the 8-hour time-weighted average noise exceeds 85 dB for more than 2 days in any month. Military and civilian personnel working in such areas are automatically enrolled and identified as "*At Risk*," and must undergo frequent hearing tests and health monitoring.

The noise levels made by Growlers on path 32 as recorded by JGL Acoustics documented sound levels of over 130 dB. The JGL data were examined by another COER-retained noise expert Paul Schomer (Standards Director, Emeritus, of the Acoustical Society of America). Simplified, Dr. Schomer revealed that folks under path 32 are experiencing well over the Navy's threshold for designation of a Hearing Conservation Zone.

For example, in 14 days in July 2012 there were 1122 FCLP overflights, or an average of 80 overflights for each flying day that month. The noise that residents experienced that July exceeded the Navy's Hearing Conservation Zone threshold by more than 7 fold.

What the Navy is required to do for civilian and military folks in their Hearing Conservation Program has five components:

1. **On-Site Noise Measurement**, to identify noise exposure levels and spatial variations.
2. **Engineering Controls**, to reduce the potential hazard to the maximum extent feasible.
3. **Annual Personnel Testing**, to enable timely audiological and medical evaluation.
4. **Hearing Protective Devices**, to be provided and fit to each individual and to be worn until and unless effective engineering controls mitigate the noise hazard.
5. **Education of Personnel**, as required regarding the impacts of noise hazards on human health and proper use and care of hearing protective devices.

²² Navy and Marine Corps Public Health Center Technical Manual NMCPHC – TM 6260.51.99-2. Navy Medical Department Hearing Conservation Program Procedures. Navy and Marine Corps Public Health Center, September 15, 2008. http://www.public.navy.mil/surfor/Documents/6260_51_99_2_NMCPHC_TM.pdf

However, there is no protection program at all for those for civilian residents routinely exposed or for Reserve visitors unknowingly exposed, but the mere existence of the DOD program acknowledges the existence of a health risk problem.

Low Frequency Noise (LFN) Impacts on APE Historic Properties

There is no doubt that absence of noise and the presence of sound contribute to the sense of place or setting of many heritage assets. For example, churchyards, burial mounds, ruined buildings can all have a very distinct sense of place which is at least partially the result of the absence, or at least recession, of the invasive sounds of jet noise. Soundscape is an important factor in the Reserve.

A variety of laws, executive orders, and regulations clearly charge the National Park Service (NPS), a partner in the Reserve, with preserving cultural resources and providing for their enjoyment "in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." Parks offer special opportunities for people to experience their cultural inheritance by offering special protection for cultural resources.

The NPS Management Policies recognize five broad categories of cultural resources, with many resources often classified into multiple categories.

1. Archeological resources are organized bodies of scientific evidence providing clues to the mystery of past events, primarily objects in context, ranging from household debris in a site from a past culture, to foundations of buildings, to pottery and tools, to paintings or writings.

2. Cultural landscapes are settings humans have created in the natural world showing fundamental ties between people and the land, ranging from formal gardens to cattle ranches, and from cemeteries or battlefields to village squares.

3. Structures are large, mechanical constructions that fundamentally change the nature of human capabilities, ranging from Anasazi cliff dwellings to statues, and from locomotives to temple mounds.

4. Museum objects are manifestations and records of behavior and ideas that span the breadth of human experience and depth of natural history, and may include archeological resources removed from the context where they were found.

5. Ethnographic resources are the foundation of traditional societies and the basis for cultural continuity, ranging from traditional arts and native languages, spiritual concepts and subsistence

activities which are supported by special places in the natural world, structures with historic associations, and natural materials.

An important aspect of cultural resources is their non-renewability: If they lose significant material aspect, context, associations, and integrity, they are lost forever. The responsibility of the NPS is to minimize loss of pre-historic and historic material. Closely related but secondary responsibilities include maximizing the expression of historic character, integrating site development with natural processes, sustaining the lifeways of ethnic groups, increasing our knowledge of past human behavior, and supporting the interpretation of park resources.

Possible adverse aircraft overflight impacts on cultural resources entrusted to the NPS include physical impacts from vibrations, loss of historical or cultural context or setting, and interference with visitors' park experience. The term "adverse effect" has special meaning when used in association with historical properties. The definition put forth in The National Historic Preservation Act of 1966 states: *"An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association."*

While physical impacts can permanently harm objects, impacts to context or setting, such as when aircraft fly over an 1800's reenactment or an ancient religious ceremony, can significantly reduce the associations and integrity of the objects, and the enjoyment and understanding of the cultural heritage.

Growler noise is both extremely loud and includes low-frequency vibrational noise. This adversely impacts and stands in the way of the National Park Service and the Ebey's National Historical Reserve Board fulfilling their mission and directives of protecting this non-renewable cultural resource of National importance.

Based on the research presented in this analysis, including the Navy's own research of low-frequency sound, there is cause for real concern. The Navy's current operations, not to mention proposed operation increases at OLFC, represent adverse impacts on the fragile historic properties the Reserve, as well as the cultural and historical heritage, soundscape, and visitor appreciation of the Reserve.

NASWI 2005 EA: Table 3-26 NRHP-Listed Historic Sites at Ebey's Landing National Historic Reserve Currently Located within the ≥ 65 -dB DNL and are of high concern for low-level noise impacts on fragile historic structures. These properties are all at risk and each should be surveyed and monitored for on-going current impacts.²³

Noise Zone (CY 2003 and CY 2013)

²³ FROM The NAS Whidbey Island's 2005 EA.

CY 2003

Newcomb Property
 Bergman House
 Benson House
 Hughes House
 Bradt House

Island County (outside town of Coupeville)**CY 2003**

Reuble Farm
 John Kineth Farmhouse
 Sam Keith House
 Wiley Place
 Strong Granary
 Old Anderson Place
 Grove Terry Place
 Fort Casey Housing/Myers House
 Fort Casey Pump House
 C. Wanamaker House
 J. Gould House/Miller House
 Strong House
 Gilbert Place/Eggerman House
 Gillespie House
 Sam Crockett House
 H. Crockett House/Boyer Farm

CY 2013

Reuble Farm
 John Kineth Farmhouse
 Sam Keith House
 Wiley Place
 Strong Granary
 Old Anderson Place
 Grove Terry Place
 Fort Casey Housing/Myers House
 Fort Casey Pump House
 C. Wanamaker House
 J. Gould House/Miller House
 Strong House
 Gilbert Place/Eggerman House
 Gillespie House
 Sam Crockett House
 H. Crockett House/Boyer Farm
 Col. W. Crockett Farmhouse
 Thomas Sullivan House
 Engle Farm

* Source: Kwargsick 2004; Island County Department
 of Planning and Community Development 2004

In addition, NAS Whidbey Island should agree to provide historical documentation for the Kellogg House, a historic house that once occupied the OLF site and was the residence of a physician known as "the Canoe Doctor."

Island County's Comprehensive Plan supports the Goals & Policies of Ebey's Reserve.

Washington State's Growth Management Act outlines thirteen goals that communities must plan by; Goal 13 is to "identify and encourage the preservation of lands, sites, and structures, that have historical or archaeological significance." Few communities however, have thoroughly addressed historic preservation in their Comprehensive Plans. Given the abundance of Island County's historic resources, historic preservation is a high priority within the community and several sections of the new Comprehensive Plan include the preservation of Ebey's Reserve.

5.3 EBEBY'S LANDING HISTORIC RESERVE

National Reserves are geographic areas containing nationally significant resources in which federal, state and/or local agencies, along with the private sector, work cooperatively to manage, protect and interpret the resources.

Ebey's Landing National Historical Reserve (Reserve) was established by an act of Congress in 1978 in order "to preserve and protect a rural community which provides an unbroken historic record from nineteenth century exploration and settlement of Puget Sound up to the present time." (Public Law 95-625, November 10, 1978). The Reserve, is one of the only remaining area in the Puget Sound region where a broad spectrum of Northwest history is clearly visible on the land and protected within a landscape that is lived in and actively farmed. Most of the land remains in private ownership, while retaining its historic, cultural, and rural character.

The Reserve is nationally significant; when it was established, it represented a new approach to preserving land and heritage resources. This new approach recognized that local government, including Island County (the government and its residents) has always been a key partner in the Reserve.

The Reserve's distinct landscape, rural character and heritage resources are economically important within our agricultural, recreation and tourism industries, socially important within our community, and worthy of proactive Preservation.

... The Reserve's boundaries reflect this history and are the same as those of the Central Whidbey Island Historic District established in 1973, which were based on the settlement patterns resulting from the Public Lands Survey Act of 1850, also known as the Donation Land Claim Act. The legislation points to the fact that this is a community that has evolved from early exploration to the present and consists of descendants of original settlers as well as new residents. As such, the Reserve cannot be interpreted from one specific point in time. In addition, most of the land is privately owned, with the rest a combination of local, state, and federal ownership; creating a unique set of circumstances. The NPS has purchased little land within the Reserve, but has actively acquired scenic easements on farms and important open spaces. The concept of the Reserve was a community effort and participating in land protection is voluntary on the part of private landowners. This has been a key to the Reserve's success in the community.

The impetus to protect central Whidbey began from local citizens' initiative to protect Ebey's Prairie from inappropriate development and is well documented in the Reserve's administrative history. The concept of a national historical reserve was viewed as a way to preserve open space with a minimum disturbance to private landowners—to provide initial federal support without threatening local autonomy.

Goal 1. Actively participate as a partner in Ebey's Landing National Historical Reserve in order to "preserve and protect a rural community which provides an unbroken historical record from 19th century exploration and settlement in Puget Sound to the present time" (Public Law 95-625, November 10, 1978).

Goal 2. To identify Island County's archaeological resources, and to protect and preserve the

cultural, historical, social, educational, and scientific value of these resources in a manner that respects their cultural significance.

Island County and the citizen's of Island County have a long-term investment and commitment in the Reserve and have deemed it a priority in the goals and policies of the new Comprehensive Plan. The intrusion of the Navy's Growler jet noise into the Reserve's soundscape has considerable impact on the County's ability to achieve the protection and pro-active preservation goals published in its Comprehensive Plan. The low-level jet noise degrades and negatively impacts the rural character and the economically important heritage resources within our agricultural, recreation and tourism industries -- so important to the community and to the thousands of visitors who visit the Reserve annually.

One Last Correction

Commander Moore, in his request for comment on this 106 Process, infers that OLFC has been used by the Navy for 74 years, which is off by nearly 25 years. To clarify, the Navy reactivated this 1943 WWII emergency landing strip in the late 1960s for FCLP use. In the intervening 50 or so years, while the jets evolved into the now fastest and loudest jets ever operated by the Navy, the population density in and the Reserve was created.

The often-stated claim that the "Navy was here first" grossly misrepresents actual history and insults the Skagit Indians (one of four groups of Salish Indians), the European settlers, and the founding families of the historic town of Coupeville -- the second oldest town in Washington State and Ebey's Reserve. The Navy is actually a johnny-come-lately to Whidbey Island.

Even Admirals Cove, a community of over 600 properties lying directly under the FCLP approach, was planned and initiated in the mid-1960s, at which time public records show the Navy was intending to release OLFC to Island County. It was even offered to the developers of Admirals Cove, but they declined, not realizing that inaction by the County would fail to obtain OLFC for public use. So, even when Admirals Cove was developed, the Navy's plans for the outlying field were conversion to nonmilitary use, and even after OLFC was reactivated in 1967, the Navy's use was supposed to be part-time along with civilian use.

While the Navy infers that its presence grants it some sort of grandfather rights, under that logic the grandfather rights really belong to those preceding the Navy. But, of course, neither is constructive or logical. What has happened here is the pure absence of foresight and meaningful planning, both by politicians and the Navy, to address change in jets and demographics and to thwart encroachment. Had the proper buffer acreage been obtained for OLFC years ago, the encroachment would not be the problem it is today. While the development surrounding OLFC is too entrenched and important to move, Growlers do move—very fast—and they can do their

FCLP sessions at other locations. The only thing preventing that solution is intransigence and the will to do so.

CONCLUSION

We, the Board of Directors of Citizens of Ebey's Reserve (COER), given (1) the inadequacies of the Navy's noise data and its reliance on an improper single noise metric (DNL based on LFN-masking dBA scale), and (2) based on the noise impacts on visitor and resident health and related annoyance and the long-term structural integrity of historic buildings of the Reserve, do hereby recommend that all FCLPs at OLFC and low-level flights over the Reserve be discontinued and redirected to an appropriate remote and environmentally insensitive location.

INTRODUCTION

I am submitting the following comments on the Draft Environmental Impact Statement for the EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex on behalf of myself and the Citizen's of the Ebey's Reserve. Analyses and conclusions concerning aircraft noise exposure and its impacts that are contained in the Navy's Draft Environmental Impact Statement (DEIS) entitled "EA-18G 'Growler' Airfield Operations at Naval Air Station (NAS) Whidbey Island Complex" (noticed in the Federal Register on Thursday, November 10, 2016) are defective in my professional opinion¹ because, *inter alia*:

- 1) The DEIS's disclosure of anticipated aircraft noise exposure understates actual aircraft noise exposure levels on days when Field Carrier Landing Practice (FCLP) operations are to be conducted at Coupeville Outlying Field (OLFC); and
- 2) The Navy's criterion of the "significance" of noise impacts fails to reflect modern scientific information about the effects of aircraft noise on residential populations. This failure causes the DEIS to further underestimate the size of the residential population significantly impacted by the proposed action.

More specifically, contrary to the Navy's claim in §A.3.1 of the Draft EIS, its definition of a value of 65 dB of the Day-Night Average Sound Level as a threshold of "significance" of noise impact is *not* based on "the updated Schultz curve" of the 1992 report of the Federal Interagency Committee on Noise (FICON). (The implications of this erroneous claim are discussed at length below.)

These flaws in the Navy's disclosure of actual aircraft noise exposure, and of the impacts of increased noise exposure associated with an increase in Growler flight operations, mislead readers of the DEIS about the consequences of the Navy's proposed action.

To comply with NEPA, the DEIS must be revised to disclose actual noise exposure levels in the vicinity of Outlying Field Coupeville ("OLFC") on days when FCLP operations are conducted, not merely on an entirely fictitious annual average day. The revised document must² also apply a contemporary and technically supportable criterion of significance of noise impacts to appropriately disclose the size of the population affected by actual aircraft noise exposure. Additionally, to avoid misleading readers of the DEIS, the revised document must correct its

¹ My qualifications for forming these opinions are summarized in Appendix A.

² The U.S. Data Quality Act (Section 515 of the Consolidated Appropriations Act, 2001, Public Law 106-554) requires that information disseminated by federal agencies must be accurate, reliable and unbiased. ISO Standard 1996-1, published in March of 2016, is an international technical consensus standard that contradicts and supplants information contained in the 1992 report of the U.S. Federal Interagency Committee on Noise, on which the Navy claims to rely. Supposed reliance on an outdated document for a now obsolete and technically inaccurate dosage-response function to characterize the extent of noise impacts produced by predicted noise exposure is capricious and illogical.

erroneous account of the provenance of the Navy's definition of the significance of aircraft noise impacts.

TECHNICAL DISCUSSION

The following subsections explain why the disclosures of predicted aircraft noise exposure levels in the DEIS are unjustifiable on technical grounds, and why the Navy's interpretations of the significance of predicted aircraft noise exposure levels are misleading. The subsections address:

- 1) NEPA requirements for environmental impact disclosure documents;
- 2) faults in the DEIS related to characterization of aircraft noise exposure that varies over time; and
- 3) the Navy's approach to converting its misleading estimates of aircraft noise exposure into mistaken predictions of aircraft noise impacts.

Nature of Navy's Disclosures

The Navy calculates and discloses anticipated environmental impacts in two steps. First, the Navy predicts how much noise exposure it expects its future flight operations to create. These predictions are typically displayed in the form of noise exposure contours. Next, the Navy compares the predicted quantity of noise exposure with its (obsolete, as explained below) policy on the "significance" of the predicted exposure levels. Note that disclosure of aircraft noise exposure alone (the first part of the two step process) does not directly disclose aircraft noise impacts in residential neighborhoods.

Quantification of aircraft noise exposure is an arcane process that is only poorly understood by the general public. Contrary to reasonable expectations, for example, the Navy does not make *in situ* measurements of the noise exposure that its aircraft produce at specific facilities. (Noise contours published by commercial airports as part of routine FAR Part 150 studies often validate predicted contours by empirical measurement.)

Instead, the Navy's DEIS relies entirely on software modeling to predict how much noise it expects its aircraft operations to produce during a supposedly "typical" time period: a hypothetical annual average day. For purposes of disclosing noise impacts, annual averaging is tantamount to assuming that people fully forgive or forget the annoyance created by recurring episodes of extreme aircraft noise exposure throughout the year.

Since there are no facts about the future, the Navy's prospective estimates of noise exposure in future time periods must necessarily be based on assumptions. The resulting noise exposure estimates can be no more credible than these computational assumptions. The substantive issues in interpreting the noise exposure contours shown in the DEIS are thus not the

locations of the contours *per se*, but the great many assumptions that the Navy had to make to generate the contours.

One unwarranted assumption that the Navy makes concerns modeling of noise created by intermittent FCLP operations. The assumption, discussed next, leads to systematic underestimation of both aircraft noise exposure and the size of the population significantly affected by it.

Accounting for variability in aircraft noise exposure

Flight operations at U.S. Department of Defense (DOD) airfields often vary notably over the course of a week. In particular, flight activity on weekdays is often considerably greater than on weekends and federal holidays. In the past, DOD (and particularly U.S. Air Force) practice in NEPA-mandated environmental impact disclosure documents has been to predict future aircraft noise exposure on an “average busy day” basis, rather than on an annual average day basis. (See, for example, Wyle Laboratories, 2013, or the Navy’s own 1993 DEIS for Proposed Modification of Air Operations Management at Naval Air Station Whidbey.) The practice of computing noise contours on an average busy day basis reduces under-estimation of prospective noise exposure that would result from averaging noise exposure created on busy weekdays with lower noise exposure created on weekend days.

Annual averaging is intended to characterize noise exposure in the vicinity of airfields with reasonably stable operations. An annual average exposure level is a reasonable concept, for example, at large commercial airports whose pace of operations varies only little from day to day, and which have a predominant direction of air traffic flow. Annual averaging is unwarranted when day-to-day variability in operations is extreme. The assumption is arbitrary when disclosing only annual average noise exposure obscures large, *bona fide* differences in noise exposure associated with a particular operational mode of an airfield. The assumption is frankly disingenuous when it permits a project proponent to avoid disclosing substantial episodic increases in noise exposure that recur throughout the year.

The arbitrary nature of the Navy’s decision to neither calculate nor disclose actual aircraft noise exposure created on days when FCLP operations are conducted at OLFCA is evident when viewed in the context of noise regulatory policies of other U.S. Federal agencies. For example, the Federal Highway Administration (FHWA, 1997) Noise Abatement Criteria disclose and interpret *hourly*, not daily, equivalent (energy-average) sound levels (*cf.* Table 1, 23 CFR Part 772). FHWA’s criterion of the significance of noise impacts in residential neighborhoods is exceeded when actual A-weighted traffic noise levels during any *hour* of the day exceeds 67 dB.

As another example of the arbitrariness of basing environmental impact disclosures solely on annual average day noise exposure predictions, the Federal Rail Administration (FRA, 2012) considers simple *increases* in existing sound levels, not just absolute sound levels, as indicative of

noise impacts, as shown in Figure 1. FRA considers increases of 5 dB (or less, at higher noise exposure levels) as indicative of noise impacts requiring mitigation in residential (“Category 2”) areas near rail lines.

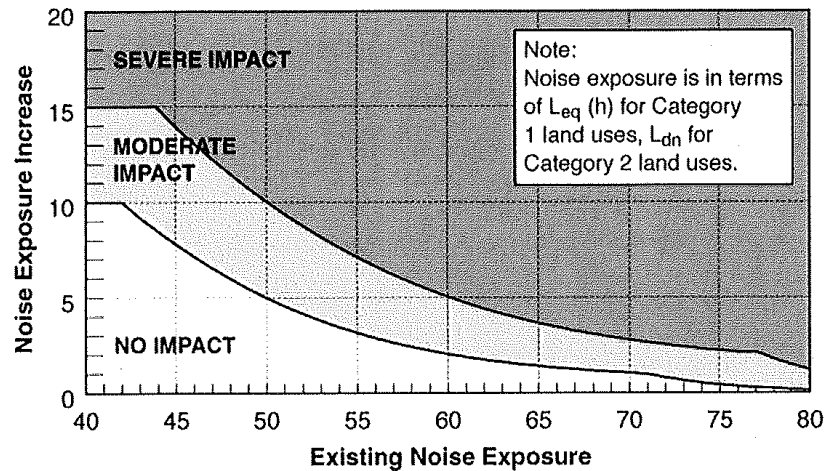


Figure 1: FRA policy on magnitude of an increase in cumulative noise exposure levels permissible under its policy in residential (“Category 2”) areas (U.S. Federal Railroad Administration, 2012)

Direct vs. indirect characterization of noise impacts

The fundamental purpose of a DEIS is to disclose environmental effects of proposed federal actions. For NEPA-related purposes, aircraft noise therefore is not measured for measurement’s sake, but to predict its effects on people. The unit in which the Navy’s aircraft noise contours depict noise exposure is a decibel-denominated noise metric, DNL. As a physical measure of an acoustic quantity, DNL is *not* a direct measure of noise impact.

Although the concept of annoyance with aircraft noise intrusions is universally understood, few members of the public understand the logarithmic basis of decibel-denominated quantities such as DNL (Mestre *et al.*, 2011.) For many readers of the DEIS, the practice of inferring noise impacts from noise exposure contours confuses cause and effect. It is akin to gauging the effectiveness of a vaccine for a communicable disease by citing the number of people vaccinated, rather than by any change in the incidence of new cases of the disease.

The aircraft noise contours of the DEIS would more directly inform readers if they were labeled in units of noise *effect* rather than in units of noise *exposure*. Given that the Navy relies on the 1992 FICON report as its authority for disclosure of environmental noise impacts; and that

FICON identifies the prevalence of annoyance in communities as its preferred unit of adverse effects of noise exposure, the noise contours of the DEIS would be more directly understandable by the general public if labeled as percentages of the population highly annoyed, rather than as decibels of a poorly understood noise metric. Instead of illustrating how much aircraft noise is produced in geographic areas, the re-labeled contours would directly reveal the percentage of people residing within a contour who are expected to be highly annoyed by aircraft noise. A set of such contours would then directly communicate to readers of the DEIS the geographic bounds of areas in which, for example, 5%, 10%, 15%, 20%, and 25% of residents would be highly annoyed by predicted aircraft noise exposure.

Conversion of noise exposure into noise impact

The DEIS contends that the Navy relies on a 1992 report published by a Federal Interagency Committee on Noise (FICON) to predict impacts of aircraft noise on exposed residential populations. This report unequivocally states that:

“...the percent of the exposed population expected to be highly annoyed (%HA) [is] the most useful metric for characterizing or assessing noise impact on people”; and

“...the ‘updated Schultz curve’ remains the best available source of empirical dosage-effect information to predict community response to noise”

The “updated Schultz curve” (Fidell *et al.*, 1989, 1991) thus provides the link needed to convert the Navy’s predicted noise dose (expressed in units of decibels) into the environmental impact of noise doses (expressed in units of percentages of the exposed population expected to be “highly annoyed”), as FICON (1992) recommends. As explained below, however, the “updated” Schultz curve of a quarter century ago is no longer a scientifically defensible method for converting noise dosages into expected community response to aircraft noise exposure.

The Navy’s definition of “significant” noise impact

NEPA requires full disclosure of “significant” environmental impacts of federally proposed projects. The FICON report, however, is silent on exactly how the updated Schultz curve supports a definition of the significance of noise exposure in units other than annoyance. Further, no DoD publication subsequent to FICON’s 1992 report explains how FICON-recommended dosage-response analysis supports definition of $L_{dn} = 65$ dB as a threshold of significance of noise impacts.³ If, as FICON asserts, “the percent of the exposed population expected to be highly annoyed (%HA) [is] the most useful metric for characterizing or assessing noise impact on

³ Two other documents – FICON (1980), and FAR Part 150 (1985) – sometimes cited as authorities for selection of a 65 dB value of DNL as a threshold of significant noise impact are also silent on the rationale for defining a DNL value of 65 dB as a threshold of the significance of aircraft noise exposure.

people,” then no useful purpose is served by expressing a definition of the significance of noise exposure in other units.

The FICON report is silent on the definition of “significant” noise impact because, in reality, there is no objective or “scientific” technical justification for inferring a definition of significance of noise exposure from a curvilinear dosage-response relationship. The DNL = 65 dB definition of a threshold of significance is simply an unsupportable value judgment based on obsolete information. This opinion is improperly based on nothing more than uninformed repetition of long outdated information, and at root, on nothing more than the opinions of a few 1950s-era researchers. (The actual provenance of the Navy’s DNL = 65 dB definition of the significance of noise exposure is described later.)

It is helpful to clearly understand the nature of the updated Schultz curve of the 1992 FICON report. As shown in Figure 2, at a DNL value of 65 dB, the updated Schultz curve indicates that 12.3% of the residential population is highly annoyed by aircraft noise. While a DNL value of 65 dB may be a “round” quantity of noise exposure, the associated measure of noise impact identified (incorrectly, as it turns out) by FICON (1992) – 12.3% of the noise exposed population highly annoyed – is an utterly arbitrary criterion of significant noise impact. An annoyance prevalence rate of 12.3% is neither a round number, nor a value judgment based on any formal analysis, nor even a recognized definition of significance of noise impact.

Instead, the Navy’s opinion that a value of DNL of 65 dB can serve as a threshold of significance of noise exposure intentionally sidesteps its duty under NEPA to disclose noise impacts in the DEIS. Readers of the DEIS would have to be fully conversant with decades of technical literature on transportation noise effects to understand that the Navy’s definition of “significance” of noise impacts effectively defines aircraft noise exposure that annoys at least 12.3% of the population as a significant noise impact.

Note also that the FICON (1992) curve purports to pertain to all transportation noise, and is not specific to aircraft noise, but improperly includes information about community reaction to road and rail noise as well. Since decibel-for-decibel, aircraft noise is more annoying than rail or road noise (Miedema and Vos, 1998; Miedema and Oudschoorn, 2001), the updated Schultz curve is another source of the Navy’s underestimation of the annoyance of its aircraft noise.

Figure 3 shows the dosage-response relationship between aircraft noise exposure and the prevalence of high annoyance in communities contained in the most recent international technical consensus standard (ISO 1996-1, 2016: “Acoustics – Description, Measurement and Assessment of Environmental Noise - Part 1: Basic Quantities and Assessment Procedures”). ISO 1996-1 specifies the measurement procedures and units in which 160+ nations world-wide have agreed represent the most scientifically defensible means for quantifying environmental noise exposure and its impacts. The United States is a member of ISO, participated actively in the analyses conducted to revise this standard, and subscribes fully and without exception to it. The U.S.

Department of Transportation even provided contractual support for research leading to the interpretive methods for noise impacts identified in ISO 1996-1 (Fidell *et al.*, 2011)

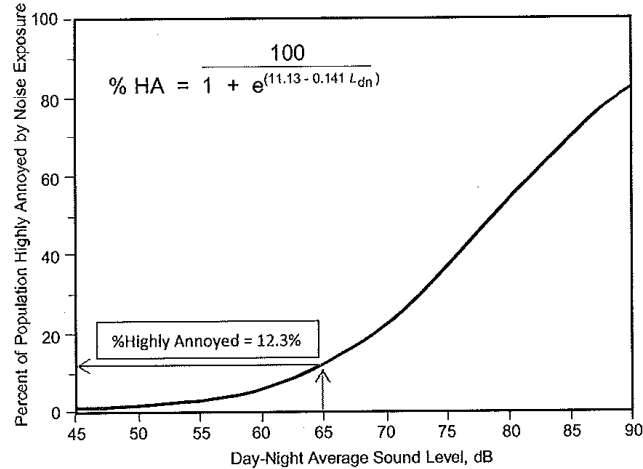


Figure 2: Updated Schultz curve of the 1992 FICON report, relating noise exposure (measured in decibels) to noise effect (measured in the percent of the population highly annoyed). The curve erroneously shows that 12.3 percent of the population is highly annoyed by noise exposure of DNL = 65 dB.

ISO's 2016 dosage-response relationship is based on much more social survey information than was available in 1992, is specific to aircraft noise, and indicates that considerably greater percentages of the population are highly annoyed by aircraft noise than the 1992 "updated Schultz curve." Figure 4 compares FICON's 1992 dosage-response relationship with ISO's 2016 relationship for aircraft noise. At a DNL value of 65 dB, the FICON relationship underpredicts the prevalence of annoyance created by aircraft noise exposure by more than a factor of two. The now-superseded FICON relationship is plainly an incorrect and technically indefensible basis for any policy judgments purporting to define the significance of aircraft noise impacts.

If the Navy's definition of the significance of noise exposure were, as claimed in the DEIS, truly based on FICON's 1992 dosage-response relationship, it is apparent from Figure 4 that to maintain consistency with the current international standard, the Navy would have to re-define the threshold of significance of aircraft noise exposure as 55.5 dB. It follows that this would require the DEIS to display noise exposure contours for DNL values 5 to 10 dB lower than those depicted in Figures 6-1 *et seq.* of Volume 2 (Appendix A) of the DEIS.

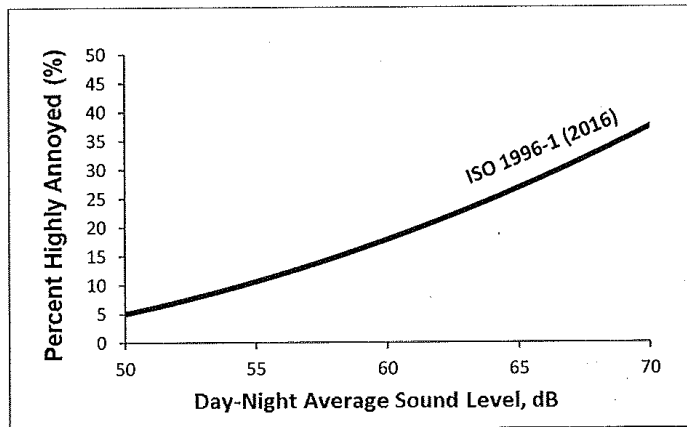


Figure 3: Dosage-response relationship of ISO 1996-1 (2016), showing ~27% of the population highly annoyed by noise exposure of DNL = 65 dB.

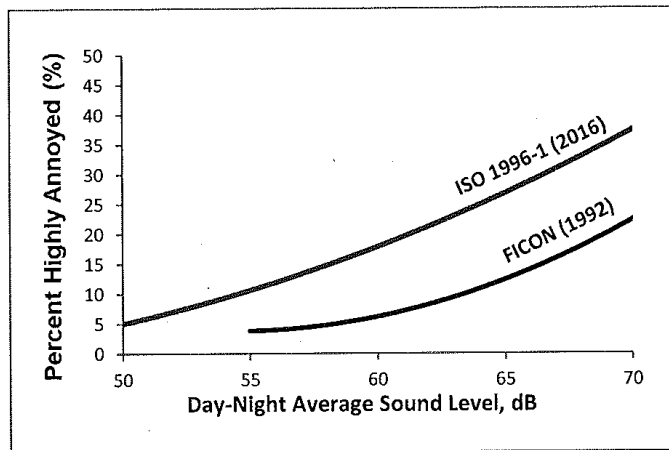


Figure 4: Comparison of 1992 FICON dosage-response relationship with that of ISO 1996-1 (2016), showing an *underestimation* of more than a factor of two in the percentage of the population highly annoyed by aircraft noise at a DNL value of 65 dB.

It also follows that the Navy must re-analyze and disclose the size of the residential population exposed to significant noise impacts due to the proposed action. The DEIS shows that the 60 dB DNL contour from OLFCA for the various alternatives already extends into portions of downtown Coupeville, but the DEIS does not consider aircraft noise exposure of this magnitude as creating "significant" impact. The 55 dB DNL contour would very likely encompass all of downtown Coupeville for the various alternatives considered, and would hence classify a greater number of residences as significantly impacted by FCLP operations.

Actual provenance of DNL = 65 dB as a definition of a threshold of "significance" of noise exposure

The Navy's opinion that a DNL value of 65 dB represents a threshold of significant noise impact is not directly connected to any body of empirical information about noise-induced annoyance, nor does it follow from any dosage-response analysis, nor is it based on any documented analysis. In fact, designation of a DNL value of 65 dB as a threshold of "significant" noise impact has never had an objective rationale. It is merely an arbitrary, non-technical policy preference of some, but not all, U.S. Government agencies with noise regulatory responsibilities.

In reality, the DNL value of 65 dB is simply a vestige of a purely formulaic series of conversions of a 1950s-era "Community Noise Rating" (CNR) value of 100. The original CNR value was simply mathematically transformed over the last six decades: first into a 1970s-era "Noise Exposure Forecast" (NEF) value of 30 dB, and then later, into a 1980s-era DNL value of 65 dB. Rosenblith and Stevens (1953) and a few of their professional colleagues (including Stevens and Pietrasanta, 1957; Stevens, Rosenblith, and Bolt, 1955; and Galloway and Pietrasanta, 1963) first identified CNR = 100 as a quantity of aircraft noise exposure corresponding to a manageable level of complaints about military aircraft noise and threats of litigation in military base housing.

Thus, even in the 1950s, the value of CNR = 100 represented nothing more than the opinions of a few acoustical consultants. It was never intended as a value of noise exposure distinguishing residentially acceptable from intolerable noise-induced annoyance, nor as a measure of noise exposure compatible with comfortably habitable residential neighborhoods. In fact, this value of CNR had nothing at all to do with annoyance, as FICON recommends.

A CNR value of 100 was simply an expedient recommendation of a quantity of cumulative noise exposure that seemed to keep a lid on aircraft noise complaints and threats of litigation in military base housing during the early years of the Cold War era. The CNR noise metric was developed long before the start of commercial jet operations in the United States. A DNL value of 65 dB (corresponding mathematically to a CNR value of 100) preceded by two decades the passage of the 1972 federal Noise Control Act (Public Law 92-574), the National Environmental Policy Act (Public Law 91-190), and the heightened environmental awareness of recent decades. Since the FICON report provides no rationale for deriving a DNL value of 65 dB from the updated

Schutz curve, the Navy cannot plausibly attribute this DNL value to anything contained in the 1992 FICON report.

This value of CNR, mathematically transformed into a DNL value, also preceded a shift from complaints and litigation (behaviors) to the attitude of annoyance as a generalized measure of adverse impact of aircraft noise, per direction provided by Congress to the U.S. Secretary of Transportation under Public Law 96-193, the Aircraft Safety and Noise Abatement Act (ASNA) of 1979.

In light of the contemporary technical consensus (ISO, 2016), the Navy's opinion that a DNL value of 65 dB defines a threshold of "significant" noise impact implies that the Navy believes that more than a quarter of the residential population must be highly annoyed to qualify a noise impact as "significant." Such a belief is simply untenable in light of the latest revision of ISO Standard 1994-1 (2016):

- 1) The updated Schultz curve of the FICON report, on which the Navy claims to rely for its definition of significant noise impact, erroneously predicts that only 12.3% of the population is highly annoyed by noise at a DNL value of 65 dB. It is now known, *per* ISO 1996-1 (2016) that the prevalence of annoyance with aircraft noise exposure is more than twice as great as that predicted by the updated Schultz curve.
- 2) The Navy's opinion is technically obsolete and indefensible because it fails to distinguish between the annoyance created by exposure to aircraft noise and that created by road and rail traffic.
- 3) The Navy's opinion is arbitrary because, contrary to the recommendation of the FICON report, it is not based on the annoyance created by its aircraft operations. The criterion of CNR = 100, subsequently transformed mathematically into a DNL value of 65 dB, was based on analyses of complaint behavior and threats of litigation, not on the attitude of annoyance.
- 4) The Navy's policy is unsupported by its claim that the policy is based on the 1992 FICON report. This claim is self-evidently erroneous for two principal reasons. First, the 1992 FICON report nowhere prescribes how or why the "updated Schultz Curve" in the report compels the Navy to define a DNL value of 65 dB as a threshold of significant noise impact. Second, the FICON report merely reiterates prior claims, based on nothing other than informal recommendations made by consultants in the early 1950s, about quantities of noise exposure that were adequate to suppress complaints and litigation 40-odd years before publication of the FICON report. Such outdated recommendations fail to take into consideration the subsequent adoption of federal and state legislation such as NEPA; development of a half-century of improved understanding of the environmental

consequences of transportation noise exposure; and a heightened national concern for minimizing environmental impacts of government actions.

Failure to disclose actual noise exposure

The noise exposure estimates contained in the DEIS are a convenient computational fiction, not a meaningful indication of noise levels actually heard by people living near OLFC when FCLP operations are conducted. Many readers of the DEIS are unlikely to appreciate that on no actual day of the year will the aircraft noise exposure experienced by people who live near OLFC equal the exposure that the Navy predicts for a notional “annual average” day. The hypothetical annual average day noise exposure can include six or more times as many days when *no* FCLP operations are conducted at OLFC as days when FCLP operations are actually conducted at the outlying field.

As a result of averaging the noise exposure created on the relatively few days when FCLP operations are conducted with a greater number of days when FCLP operations are not conducted, the noise exposure contours contained in the DEIS do not accurately represent the aircraft noise exposure that Navy’s aircraft actually create on any real day of FCLP operations. The DEIS thus does not inform decision makers for whom the document is prepared about actual amounts of noise experienced by anybody on days when FCLP operations are conducted.

The DEIS lacks simple statements about the actual numbers of days per year when OLFC is used for FCLP operations. The no action alternative, for example, assumes about 6120 FCLP operations per year, which in 2016 were accomplished in less than 30 days of flying. In 2012, however, 9668 flight operations were conducted at OLFC in 79 days. The lack of clarity in the DEIS about numbers of days of use of OLFC for FCLP operations precludes exact estimates of the degree to which the Navy’s annual average noise modeling underestimates noise exposure created at OLFC on days when it is used for FCLP exercises. The failure of the DEIS to specify numbers of days of FCLP operations for the various noise modeling alternatives is also at odds with the Navy’s assertion that its noise modeling represents aircraft noise exposure for a nominal 24 hour time period.

FCLP operations are a regular part of the training syllabus for Navy pilots. If the Navy is not able to accurately predict the pace of pilot training at NAS Whidbey Island in future years, the DEIS should acknowledge as much, and provide readers with information about likely errors of estimate of its noise exposure estimates for OLFC. Table 1 shows a range of plausible estimates of the magnitude of the underestimation of actual noise exposure on days when FCLP operations are conducted at OLFC, based on varying assumptions about numbers of days of use of OLFC for FCLP training.

Number of Actual Days of Year of FCLP Operations at OLFC	Ratio of FCLP Days to 365 Days	Decibel-Equivalent Underestimation of Actual Exposure on FCLP Days Due to Annual Averaging of Exposure
30	.082	-10.9 dB
50	.137	-8.6 dB
70	.192	-7.2 dB
100	.274	-5.6 dB
200	.548	- 2.6 dB

Table 1: Range of underestimation due to annual averaging of noise exposure estimates of actual noise exposure at OLFC on days when FCLP operations are conducted.

Misleading Discussion of the Annoyance of Aircraft Noise

Section A.3.1 of the Navy's DEIS concerning the annoyance of aircraft noise exposure misinforms readers with mis-statements about the Navy's criterion for gauging the significance of aircraft noise exposure. The errors of omission and commission in this text mislead readers of the DEIS by failing to disclose the wholly arbitrary and *ad hoc* nature of the "threshold criteria" which the Navy relies upon to gauge the significance of aircraft noise exposure.

The Navy's boilerplate language is as follows:

"A.3.1 Annoyance

With the introduction of jet aircraft in the 1950s, it became clear that aircraft noise annoyed people and was a significant problem around airports. Early studies, such as those of Rosenblith *et al.* (1953) and Stevens *et al.* (1953) showed that effects depended on the quality of the sound, its level, and the number of flights. Over the next 20 years considerable research was performed refining this understanding and setting guidelines for noise exposure. In the early 1970s, the USEPA published its "Levels Document" (USEPA 1974) that reviewed the factors that affected communities. DNL (still known as L_{dn} at the time)⁴ was identified as an appropriate noise metric, and threshold criteria were recommended. Threshold criteria for annoyance were identified from social surveys, where people exposed to noise were asked how noise affects them. Surveys provide direct real-world data on how noise affects actual residents."

This above boilerplate text from the DEIS is no more than truth by assertion. The Navy's language makes artful use of the passive voice (*e.g.*, "considerable research was performed"; "threshold criteria were recommended") to disguise the agent and lack of logical rationale for the Navy's recommended threshold criteria, but does not correspond to reality. In truth, the Navy's definition of the significance of noise exposure is NOT derived from any analysis of social survey

⁴ DNL, an abbreviation for "Day-Night Average Sound Level", is *still* known as L_{dn} when it is used as a symbol in mathematical expressions rather than in text. The Navy's implication that the name of the noise metric has changed is simply uninformed.

data, but dates back to decades prior to Shultz's original (1978) synthesis of the first widely-accepted dosage-response relationship derived from social survey data. The text carefully avoids defining "significant" noise impact, and provides the reader with no understanding of the utter lack of a systematic technical basis for evaluating the significance of noise impacts throughout the DEIS.

[REDACTED]
[REDACTED]
Silver Spring, MD 20910

Phone: [REDACTED]

E-mail: [REDACTED]

22 February 2017

EA-18G Growler EIS Project Management
Naval Facilities Engineering
Common Atlantic
6506 Hampton Boulevard
Norfolk, VA 23508
Attn: Code EV21/SS

To Whom It May Concern:

I am writing to express my grave concerns about the integrity of the economic analysis in the "Draft Environmental Impact Statement" (DEIS), which the Navy prepared for the proposed expansion of its EA-18G "Growler" program.

I am a Stanford-educated attorney and economist with a specialty in community economics. I have written ten published books, the last four of which have focused on what works and doesn't work in local economic development.

In May 2016 I was hired by a diverse group of residents of Island County, Washington, with both civilian and military backgrounds, to investigate the opportunities and obstacles to building a thriving, just, and sustainable local economy on Whidbey Island. The group was concerned that many studies had been published documenting the benefits of the Naval Air Station Whidbey Island but none had even attempted to calculate the costs. My charge was to correct this gap and calculate the largest costs, in the hope of improving the quality of programmatic decision-making by the Navy and by public officials.

Attached is my just-published study, entitled "Invisible Costs: The \$122 Million Price Tag for the Naval Air Station Whidbey Island."

This study examines the myriad costs that thus far have been invisible for public scrutiny and action. Among the biggest:

- *Public Costs* – Navy personnel and their families use the same services as other businesses on Island County, but if they live or shop on the base they are exempt from local taxation. That means that other residents wind up underwriting a

significant part of the Navy's presence. For example, the County is losing an estimated \$5.7 million per year in sales and property taxes that it would otherwise collect from employees of an equivalently sized private industry.

- *Opportunity Costs* – Compared to private sector jobs, Navy jobs yield relatively small economic impact. The conversion of existing Navy jobs to civilian jobs would create 3,909 additional jobs (beyond the converted jobs), expand the economy by \$503 million, and generate \$153 million more in taxes (mostly to state and local government). The loss of military pay and benefits would bring down net labor income by \$78 million, but this is more than compensated for through expanded proprietor income, rents, and tax revenues.
- *External Costs* – The Naval Air Station's largest program—training pilots to fly "Growler" aircraft—has exposed more than 11,000 residents to harmful levels of noise. An economic assessment model used to assess every high-noise project in the United Kingdom suggests that the health costs to Island County residents are currently \$2.8 million per year, and will grow to \$3.3 million if the Growler program expands as planned. Additionally, the program has depressed property values by \$9.8 million thus far, and this damage will almost certainly grow as that program expands as planned.

Altogether, over the period 2010 and 2021, these invisible costs to Island County will be about \$122 million.

In preparing this study, I carefully reviewed the DEIS, looking especially for any economic cost estimates. I was stunned to find almost none. Specifically:

- The DEIS makes no effort to calculate lost property and sales taxes lost from exemptions of properties used by the Navy and exemptions of purchases made in Navy stores. Nor does it evaluate the inequities that result when Navy personnel and families use public resources, such as the schools, but only pay a tiny fraction of the costs.
- The DEIS does not discuss the relatively poor economic-development contribution of Navy jobs, and the ways in which a large Navy presence makes it difficult for Whidbey Island to develop diversified network of local businesses on which long-term prosperity depends.
- The DEIS fails entirely to evaluate the considerable human health costs and property losses that the Growler program has inflicted on residents—costs which will rise as this program expands.

The purpose of an Environmental Impact Statement is to encourage those undertaking major projects, including U.S. agencies, to consider alternative actions. The alternatives the Navy discusses, however, are far too limited. My study recommends that the Navy consider the following five actions to minimize the huge costs being imposed on Whidbey Island residents:

- To help make Island County more resilient, begin serious conversion planning.

- To address the inequities in the Navy's use of public services, pay Island County at least \$5.7 million per year through "payments in lieu of taxes." (PILOT)
- To increase the benefits of Navy programs to local business, increase the Navy's level of local contracting.
- To minimize the health and property damages from the Growler program, move the training exercises to a less populated area.
- And to address some of the damage already inflicted, monetarily compensate victims of adverse Growler noise.

While all these actions will require the Navy to incur additional costs, I submit that these are likely to be less than the \$122 million in invisible costs the Navy is expected to impose by 2021 if the proposed Growler expansion proceeds without any modification.

I submit that the final EIS is fundamentally defective and incomplete unless and until the Navy performs the kinds of cost calculations outlined and undertaken in my study.

I welcome any further discussion of my findings by phone (██████████), e-mail (██████████), or meeting in person.

Sincerely,

██████████

Invisible Costs

**The \$122 Million Price Tag for
The Naval Air Station Whidbey Island**

By [REDACTED]

February 2017

For Further Information, Contact:

[REDACTED]
[REDACTED]
Silver Spring, MD 20910
[REDACTED]
[REDACTED]

Author's Note

In 2016 a diverse group of residents of Island County, Washington, with both civilian and military backgrounds, came together to investigate the opportunities and obstacles to building a thriving, just, and sustainable local economy. They understood that economies like Island County's that depend on a single large employer—in their case, the US Navy—appear to be strong but actually are quite vulnerable to forces beyond their control. Previous published works had focused on gross wages paid by the Navy, but many other questions were not being asked: How much of the Navy's activity was flowing back into the local economy through sales and property taxes, and through purchasing from local suppliers? What kinds of burdens was the Navy placing on taxpayer-supported services and infrastructure, including schools? How were existing Navy programs and proposed expansions affecting local health and property values?

I was hired in May 2016 to answer these questions, and discovered many invisible and uncompensated costs that have been thrust upon Island County taxpayers and businesses. For a thriving, just, sustainable future, these costs need to be understood, managed, and brought down. That's the purpose of this report.

This report is not anti-Navy but pro-common sense. It ultimately lays out simple steps that the Navy and local public officials can take to build a robust, sustainable and diverse economy.

February 2017

Executive Summary

A 2013 report by the Island County Economic Development Council lauds the Naval Air Station Whidbey Island in Washington State as “four times the size of the next nearest employer” in the region. It argues that the Navy’s contributions to the local economy include \$726 million in annual payroll, \$44 million in retirement and disability payments, and \$18 million in health care payments. Another study for the Washington Economic Development Commission found that in FY 2009 the Navy gave Island County companies \$130 million in contracts. All these studies, however, are outdated and incomplete. They highlight the benefits of Naval operations but say nothing about the costs. This study examines the myriad costs that thus far have been invisible for public scrutiny and action. Among the biggest:

- *Public Costs* – Navy personnel and their families use the same services as other businesses on Island County, but if they live or shop on the base they are exempt from local taxation. That means that other residents wind up underwriting a significant part of the Navy’s presence. For example, the County is losing an estimated \$5.7 million per year in sales and property taxes that it would otherwise collect from employees of an equivalently sized private industry.
- *Opportunity Costs* – Compared to private sector jobs, Navy jobs yield relatively small economic impact. The conversion of existing Navy jobs to civilian jobs would create 3,909 additional jobs (beyond the converted jobs), expand the economy by \$503 million, and generate \$153 million more in taxes (mostly to state and local government). The loss of military pay and benefits would bring down net labor income by \$78 million, but this is more than compensated for through expanded proprietor income, rents, and tax revenues.
- *External Costs* – The Naval Air Station’s largest program—training pilots to fly “Growler” aircraft—has exposed more than 11,000 residents to harmful levels of noise. An economic assessment model used to assess every high-noise project in the United Kingdom suggests that the health costs to Island County residents are currently \$2.8 million per year, and will grow to \$3.3 million if the Growler program expands as planned. Additionally, the program has depressed property values by \$9.8 million thus far, and this damage will almost certainly grow as that program expands as planned.

Altogether, over the period 2010 and 2021, these invisible costs to Island County will be about \$122 million. While the Navy understandably wants to discount or dismiss these costs, state and local decision-makers would be remiss not to give them serious consideration. Public officials should seek to minimize them by pressing the Navy: to begin serious conversion planning; to pay the County at least \$5.7 million per year in “payments in lieu of taxes” (PILOT); to increase the Navy’s level of local contracting; to modify the Growler program (perhaps by moving its training to a less populated area); and to compensate victims of adverse Growler noise or toxic chemicals impacts. Whatever the Navy does in the future, Island County also needs to refocus its economic development efforts on diversifying its economy and reducing its dependence on ultimately unreliable streams of federal spending.

Prologue

What makes an economy sustainable? The American Sustainable Business Council says it includes “economic approaches, investments, regulations, and research that accurately assess the total costs of projects, including social, economic, and environmental externalities.” It points to evidence that nurturing a diversity of small and mid-sized local businesses is better than attracting a large, outside employer for making communities more resilient and generating more jobs for the investment made. Depending on a single large employer “leaves the community vulnerable to ... externalities (pollution, etc.), and to sudden, widespread unemployment if the corporation decides to pull up stakes.”

Forty sustainability minded Whidbey citizens with civilian, military, non-profit, small business, and professional backgrounds came together in the Spring of 2016 to better understand how to assure a thriving, diverse, resilient local economy in Island County into the future. The economic footprint of the Naval Air Station Whidbey Island (NASWI) became a focus because economies dominated by a single employer may look prosperous but are actually brittle, because they use non-local suppliers and often have a transient workforce. They also leave the community subject to decisions over which it has little control.

Dubbing themselves the Sustainable Economy Collaborative, these citizens pooled personal resources and hired a well-known national expert in sustainable local economies, [REDACTED], to do an analysis of the invisible costs of our major employer, and to help plan for the possibility that NASWI could shrink as defense priorities change – or close entirely. The purpose of the SEC is to encourage a healthy economy by promoting long term planning for a sustainable economy with an ecosystem of thriving small and mid-sized businesses that take advantage of our natural assets - beauty, tourism, agriculture, history, high speed internet, strong arts and culture, and strong spirit of community service. The SEC seeks to find ways to assure ourselves and workers in our community that we’ll have equal or better jobs should the Navy as a major employer leave. The SEC does not seek the closure of NASWI; we only seek alternatives to a brittle, Navy dependent economy, including to insulate our current and future businesses from loss of revenue due to the expanding Growler training program; we seek to retain and grow a diversity of local businesses and mitigate any losses in the best way possible.

The SEC tasked Shuman with researching the following questions about how the Navy currently operates in Island County:

- What are the hidden costs of NASWI to Island County and its residents?
- How much does the Navy contribute to property and sales tax, on which the county depends?
- What taxpayer-funded infrastructure and services do the Navy use that is not fully compensated through taxes?

- How might our revenues from our parks and tourist attractions be impacted from NASWI planned programs?
- How do the Navy's economic impacts, such as its purchasing from local merchants, compare with those of other private businesses?
- What are the external costs of the currently proposed expansion of the Navy's Growler training program?
- How might Island County begin to think more seriously about the possibility of the NASWI closing in the future and "military conversion"?

The SEC proudly presents [REDACTED] findings

The Sustainable Economy Collaborative
Island County, Washington
February 2017

Introduction

Island County encompasses two large islands, Whidbey and Camano, and seven smaller islands. It currently is home to an estimated 80,600 residents. About half the population is concentrated in three communities: Oak Harbor (roughly 22,000 population), Langley (1,045 population), and Coupeville (1,849 population). The rest of the population is lightly dispersed over 208 square miles. Compared to Washington State, the residents of Island County are whiter and older, with many retirees who once worked for the largest employer on Whidbey Island – the U.S. Navy.

A 2013 report by the Island County Economic Development Council (EDC) touts the Naval Air Station Whidbey Island as having about 10,000 employees and being “four times the size of the next nearest employer” in Island and three other neighboring counties.¹ It argues that the Navy’s contributions to the Island County include \$726 million in annual payroll, \$44 million in retirement and disability payments (because of the high density of Navy retirees), and \$18 million in health care payments. Additionally, the report notes that the Navy benefits the economy through local contracts, charitable contributions, natural habitat improvements, and employee expenditures. Another study led by ██████████ for the Washington Economic Development Commission found that in FY 2009 the Navy gave Island County companies \$130 million in contracts.²

All these studies of the Navy’s economic impacts, however, are incomplete. Alongside the benefits of the Naval Air Station must be a careful evaluation of its costs. To count the benefits of any activity while ignoring the costs leads to poor decision-making. To improve state and local decision-making, this study attempts to highlight the missing piece—the invisible costs of the Navy’s presence in Island County. We call these costs “invisible” because policymakers have largely proceeded from the assumption that they do not exist. In fact, these costs are enormous.

Three invisible costs in particular are tallied:

- The special costs that the Navy imposes on the public sector, compared to a more typical, private-sector industry, because its personnel and veterans do not pay many state and local taxes;
- The opportunity costs of the Navy’s presence, including all the possible futures for the Island County that might be foreclosed or limited by focusing economic development on just one outsider-controlled industry; and,

¹ Island County Economic Development Council, “Naval Air Station Whidbey Island: Economic Impact to Island and Skagit Counties,” monograph, 4 December 2013, p. 3.

² Bonnie Berk and Michael Hodgins, “Washington State’s Defense Economy: Measuring and Growing Its Impact,” Prepared for the Washington Economic Development Commission, September 2010, p. ii.

- The external costs of the Navy's activities, particularly the costs of the Growler program on human health and property values.

This study aims to bring common sense back into public policy concerning the Naval Air Station Whidbey Island. It urges state and local decision-makers to balance their enthusiasm for the Navy's economic benefits with a sober assessment of its costs. The purpose is not to encourage the Navy to depart, but rather to suggest reasonable changes in Navy and state-and-local policies and activities that could minimize these costs and make the Navy a better neighbor. These recommendations, elaborated at the end of this paper, include beginning serious economic development planning around diversifying the Island County economy away from its current dependence on one federally funded industry. Additionally, the Navy should be pressed to do the following:

- Pay at least \$5.7 million per year to county and local government as "payments in lieu of taxes" (PILOT);
- Increase levels of local contracting;
- Modify the Growler program, perhaps by moving its FCLP flights to a less populated area; and
- Compensate victims of adverse Growler noise and related impacts.

About the Methodology

Putting a dollar value on all the impacts associated with a given activity is inherently controversial. Economists and policymakers have spent generations debating "cost-benefit analysis." What costs and benefits should be counted? How should they be counted? How, for example, can one count the loss of habitats for important or endangered species? What's the cost of a human life? How should future damage be discounted for the present? There are no simple answers to these questions. Human judgment is required.

But human judgment also underscores that, whatever the challenges posed by cost-benefit analysis, it needs to be done. The prevailing practice by state and local decision-makers in Island County, such as in the EDC study cited above, is to count and glorify the benefits of the Naval Air Station Whidbey Island while ignoring the costs altogether. Even if methodologies to estimate costs are imperfect, assigning costs a value of zero is indefensible.

It's worth noting, moreover, that the exact same kinds of methodological problems beset the estimation of benefits that are now widely used and accepted. The recitation of the number of jobs that the Navy provides, for example, often comes with an implicit assumption that without the Navy, these jobs would never materialize and these workers would be unemployed. In fact, as this study shows, the same federal dollars could be spent on myriad other nonmilitary activities and create even more employment. Similar benefits might accrue if local land, labor, and capital were freed up for private business development. As has been the case in many communities that once were highly dependent on military jobs, the withdrawal of the military creates short-term challenges but long-term opportunities.

This study focuses on the cost side of the equation but proceeds with two conservatisms, which means that our ultimate estimate of the cost of the Naval Air Station Whidbey Island is probably too low.

- First we rely on the best methodologies available for counting costs. For example, we use the methodology currently required by government decision-makers in the United Kingdom to evaluate the health impacts of noise.
- Second, we only evaluate those costs that are clearly quantifiable and not speculative. At the end of the report, we note several potential costs from the Navy that could be enormously costly, such as the contamination of drinking water supplies in parts of the Island County. But because the evidence on these problems is still unclear, we do not count them.

A final note: We keep all counts in current dollars but note the years of our sources. No discounting of costs or benefits is done, because it is a controversial practice and it would make no difference in the conclusions offered.

I. Public Sector Costs

The first type of economic cost the Navy imposes on Island County is its burden on public services. Because of federal supremacy under the Constitution, many federal activities are exempt from state and local taxation. Consequently, Navy personnel enjoy the same public services of Island County as other residents do— schools, police, social services, roads, trash collection, and so forth — but pay only a fraction of the cost. The rest of the bill is covered by other residents.

As a state without an income tax, Washington State and its sub-jurisdictions rely especially heavily on sales and property taxes. Island County loses out on both because of the significant presence of the Navy.

Regarding sales tax, Navy personnel do much of their shopping at the NEX and Commissary stores where all purchases are exempt from state and local taxation. The resulting loss of local revenue is significant. Of 39 counties in the state, according to the most recent state data available (for 2015), Island County ranks 34th in the yield of just *county and local* sales taxes per capita.³ Three of the five counties with lower yields have tiny populations (<12,000) where the population readily can shop nonlocally. In Island County, in contrast, nonlocal shopping requires significant effort—a ferry ride—which means that its low tax collections largely reflect extensive on-island, tax-exempt purchasing. Overall, county and local governments in the state generated \$687 million in sales tax collections—or \$97.22 per capita. Island County receives \$53.27 per capita. Were the County to receive just the *average* state yield per capita, the County would receive \$3.5 million more in revenue per year.

Regarding property taxes, Navy-owned land is exempt. As shown in Chart 1, the federal government owns 59 parcels of property across Whidbey Island that are exempt from property taxation.⁴ Their assessed valuation is approximately \$216 million. Were the Navy paying the average property tax rate of 0.68% per dollar of valuation, the County would receive another \$1.5 million per year.

Additionally, there are property taxes that might be paid by base personnel. Most personnel live off base and do pay property taxes directly through mortgages or indirectly through rents. However, the most recent statistics available from the Navy show that 1,518 family units are living on the base and paying no property taxes.⁵ According to the US Census Bureau in 2010, Island County had 40,234 housing units, so roughly 3.8% of these units were on base and paying no property taxes. The total property tax collections for 2016 was \$17,282,259. If on-base families were occupying households on the tax

³ Washington State Department of Revenue, *Tax Statistics 2015*, Table 17, p. 28.

⁴ See the web site of the Island County Assessor and Treasurer: <http://assessor.islandcountywa.gov>

⁵ U.S. Department of the Navy, “Draft Environmental Impact Statement for EA-18G ‘Growler’ Airfield Operations at Naval Air Station Whidbey Island Complex,” (hereinafter, *DEIS*), November 2016, p. 3-155.

rolls and paying an average level of tax per household, they would be paying the County another \$678,000 per year.

Adding these three items together yields about \$5.7 million per year.

Another big tax loss is impossible to calculate. Were federal land made available for private industry or housing, substantially new tax dollars could be generated. The next section of this study, however, explores some of these "opportunity costs."

Chart 1
Properties in Island County Owned by the U.S. Government

Property ID	Geographic ID	Appraised Value	Property ID	Geographic ID	Appraised Value
1205	R03225-200-0650	\$10	36071	R13324-237-1370	\$123,034
1447	R13101-046-0360	\$90,000	36650	R13325-330-0880	\$706,750
2044	R13102-038-4960	\$90,000	37524	R13326-329-4620	\$550,000
2197	R13102-246-4470	\$1,450,000	38444	R13327-428-3630	\$240,667
2295	R13102-336-3100	\$200,000	39005	R13328-264-1320	\$13,159,920
6736	R13109-317-0470	\$100,000	43303	R13336-080-1500	\$2,792,700
8299	R13111-515-5140	\$135,000	43358	R13336-120-2770	\$2,790,000
8315	R13112-015-2810	\$75,000	48086	R22906-345-2070	\$350,000
8324	R13112-036-1990	\$600,000	59395	R23005-198-1070	\$1,000,000
8360	R13112-167-1320	\$1,610,000	59527	R23006-288-4590	\$4,890,790
8529	R13112-421-1660	\$1,180,000	59876	R23007-489-1660	\$1,587,372
8887	R13113-343-3420	\$685,000	60490	R23008-467-0800	\$700,000
10197	R13122-202-2000	\$11,050,906	82010	R23118-181-0080	\$75,000
10240	R13122-310-2600	\$600,000	89647	R23204-040-3570	\$3,641,280
10311	R13122-420-3300	\$10	89790	R23204-330-3530	\$500,000
10721	R13201-093-2050	\$4,393,500	89816	R23204-350-1800	\$4,248,078
10776	R13201-418-1950	\$13,443,500	89969	R23206-024-5240	\$1,484,802
19045	R13212-140-1330	\$30,783,542	107672	R23331-240-4370	\$12,231,845
30344	R13235-479-2040	\$5,000	107681	R23331-345-0240	\$6,624,250
33056	R13310-264-3960	\$15,728,123	107930	R23332-240-2810	\$8,183,225
33252	R13311-107-0480	\$400,000	108369	R23333-166-2260	\$2,546,715
34000	R13312-020-2610	\$230,000	286915	S7270-00-0000A-2	\$1,050
35358	R13313-407-2500	\$1,059,760	286942	S7270-00-00003-0	\$25,000
35376	R13314-264-2640	\$7,438,750	286960	S7270-00-00008-0	\$25,000
35394	R13316-056-4830	\$2,657,008	550834	R03226-005-4810	\$400,348
35401	R13321-198-3300	\$16,222,236	550852	R13329-205-4880	\$9,388,453
35429	R13322-264-2640	\$5,742,935	572589	R13122-104-0740	\$80,000
35571	R13323-270-2730	\$20,444,760	623169	R23112-495-2300	\$200,000
35740	R13324-108-1000	\$700,000	803834	R13108-364-4680	\$273,617
35786	R13324-131-1520	\$450			
	Subtotal	\$137,115,490		Subtotal	\$78,819,896
				Total Assessed Value	\$215,935,386

To put this in perspective, the total 2016 budget for the Island County government is about \$83 million.⁶ Collecting appropriate sales and property taxes from military personnel would allow the budget to be expanded by almost 7%. Put another way, *nonmilitary residents of the County are significantly underwriting the public expenses imposed by military residents.*

The mismatch between taxes and services is especially apparent in public education. According to the Navy, half of the 5,500 students in the Oak Harbor school district are “federally connected” and school overcrowding, already a problem, is likely to get worse.⁷ In 2012-13, total costs of the school district were just over \$46 million and expenditures per student were \$8,973. Mindful of this problem with military bases across the United States, the federal government has historically given aid to school districts in militarily dependent communities. Oak Harbor received \$4.6 million in 2012-13, which covered approximately 20% of the costs of educating “federally connected” students. The other 80% came from the county and local taxes, which are paid largely by nonmilitary families. This unequal allocation of burdens is likely to get worse. Federal aid to schools in 2016, according to the Navy, will be 60% the level in 2008, and may well decline further in the future.

Numerous other instances reveal a mismatch between the Navy’s demands on public services and its contributions of dollars.

- Food insecurity runs high among low-ranking military enlistees, so much so that they spent \$103 million in food stamps at military commissary stores in 2013.⁸ While SNAP is a federal program, food insecurity also places burdens on local resources through school lunch programs and food pantries.
- The expansion of the Navy’s personnel in recent years has meant that more people on Whidbey Island are looking for housing. As the Navy concedes, Island County vacancy rates are already running low—in 2013 they were 2.4% for home owners and 5.6% for rentals.⁹ In the short term, more residents chasing a fixed supply of housing means higher housing costs for everyone in Island County. It also means more homelessness.¹⁰ A recent editorial in the *South Whidbey Record* concluded, “The affordable housing

⁶ See “Island County 2016 Budget Summary,” available at <https://www.islandcountywa.gov/Commissioners/Budget/2016ADOPTEDBUDGETSUMMARY12-07-2015.pdf>.

⁷ *DEIS*, pp. 3-158-60.

⁸ Becket Adams, “See the Eye-Popping Chart about Food Stamps and the Military,” *The Blaze*, 17 February 2014.

⁹ *DEIS*, pp. 3-156.

¹⁰ The rate of homelessness in Island County has recently doubled. See Patricia Guthrie, “More Islanders on Edge of Homelessness Than Previously Thought,” *Whidbey News-Times*, 20 December 2016.

problem on Whidbey Island, particularly the north end of the island, is reaching a crisis point...”¹¹

- To the extent that the affordable housing shortage pushes military families to live outside Island County, their commutes are exacerbating local traffic problems, which means more long waits for the ferries and more traffic accidents, all of which impose additional costs on residents.

The analysis above focuses on current budget expenses by Island County and local governments. What’s not included, however, are additional *capital budget* expenses. For example, the expanding number of students in the Oak Harbor school district may require additional schools, buses, and other capital expenditures—all of which will be the responsibility of residential taxpayers.

Another example is the Oak Harbor water treatment system. For several years, Oak Harbor struggled to get the Navy to contribute to the \$122 million upgrade and expansion of its sewage system.¹² The Navy ultimately declined to participate and, instead, chose to continue to dispose of its sewage in an outdated system of lagoons. That system is inadequate now – raw sewage has spilled occasionally into the Oak Harbor Bay – and sooner or later either the Navy or the city must undertake a multimillion-dollar capital project to remedy the problem.

The anticipated expansion of the Growler program means that all these inequities will likely get worse in the years ahead. In its *Draft Environmental Impact Statement (DEIS)* published in November 2016, the Navy suggests that various alternatives will grow military personnel over the next five years by between 371 and 664, and military dependents between 509 and 910.¹³ But it’s unclear what exactly the Navy’s baseline is for these estimates, because there was substantial growth in personnel in 2015 and 2016. A clearer picture of what’s happening is available from the Island County’s Economic Development Council, as shown in Chart 2. Between 2015 and 2019, the total population of dependents and active duty officers will grow by 5,184—an increase of 22%.¹⁴

¹¹ “Whidbey Leaders Have Big Job Ahead in Addressing Affordable Housing,” *South Whidbey Record*, 17 September 2016.

¹² See Agenda Bill (at http://www.oakharborcleanwater.org/content/documents/agendas/2014-01-21_Resolution14-05-USNavyParticipation.pdf) and related video (<http://www.oakharbor.org/video-view.cfm?keyword=wwtp&id=746>).

¹³ *DEIS*, p. 4-228.

¹⁴ Personal Correspondence between Ron Nelson (Director of the Island County EDC) and Larry Morrell, 14 November 2016. See also Jessie Stensland, “Island County, Oak Harbor Team Up To Tackle Low-Income Housing,” *South Whidbey Record*, 14 September 2016.

Chart 2
Estimates of Military-Related Population Changes on Island County
As Estimated by the Island County EDC

Year	Active Duty	Dependents & Active Duty
2007	8,150	26,406
2008	7,700	24,948
2009	7,650	24,786
2010	7,550	24,462
2011	7,250	23,490
2012	7,000	22,680
2013	6,950	22,518
2014	6,975	22,599
2015	7,200	23,328
2016	8,000	25,920
2017	8,600	27,864
2018	8,800	28,512
2019	8,800	28,512
2020	8,150	26,406

II. Opportunity Costs

Another important cost economists often weigh is the “opportunity cost.” What options are being foreclosed by today’s choices? If the growth of the Whidbey Naval Air Station’s activities crowds out economic activities that could generate still more wealth for Island County, then there are important opportunity costs.

While it’s possible for the region to enjoy economic growth in both military and nonmilitary sectors, the two universes necessarily compete for scarce resources. For example, land used by the military cannot be used simultaneously by the private sector. Investment dollars focused on businesses linked to the military are unavailable for civilian businesses. If housing expansion is limited by strict zoning laws, as is the case on Whidbey Island, the growth of military housing precludes the growth of nonmilitary housing (in fact, private companies on Whidbey Island are having difficulty finding affordable housing for new hires¹⁵).

But even more fundamentally, economic development is about how a community can shape and realize its collective vision of the future. Residents of Island County can fairly ask: Do you prefer an economy over the next generation with a continued high degree of dependence on the Navy? Or do you prefer a diversified civilian economy? What are the relative costs of pursuing one instead of the other? And what economic-development priorities should flow from these choices?

One reason these questions matter is that a growing body of evidence suggests that military base spending, compared to spending by the private sector, has a relatively weak impact on the local economy. This is partially because low tax payments and low levels of local retail purchasing by military personnel, discussed in the previous section. But equally important is that the Naval Air Station purchases most of its food, equipment, fuel, and so forth from its own, nonlocal supply chain, as dictated by Pentagon rules and suppliers. When a dollar is expended like this outside of a local economy, it constitutes an economic “leakage” that adds little economic benefit locally.

As summarized in Appendix I, a growing body of evidence suggests that economic development is most successful when it identifies dollar leakages like these and systematically plugs them through an expanding universe of locally owned businesses. In this section, we will show the potential benefits of Island County shifting its economic development priorities to these businesses.

Diversification is important for any economy, but especially for a small economy dependent on a single industry.¹⁶ Because the Island County economy is dominated by

¹⁵ Kyle Jenson, “Slim Rental Market Worrying Officials,” *Whidbey News-Times*, 13 September 2016.

¹⁶ To elaborate: Dependence on a single industry leaves an economy vulnerable to changes in global markets over which the community has little or no control. In the case of dependence on military spending,

one non-locally owned industry (namely the Navy), it is missing out on the economic benefits that might come from a diversity of local businesses. Unlike the Navy, local businesses tend to spend more of their money locally, which pumps up the local economic multiplier and increases local income, wealth, and jobs. (The empirical case for these arguments is, again, summarized in Appendix I.)

Our analysis begins by detailing the key characteristics of the Island County economy. It then presents data that show the relatively poor economic-development impact that flows from a military dollar generally. Finally, it analyzes the potential benefits of Island County replacing Navy jobs with leak-plugging private businesses.

(1) The Existing Economy in Island County

Chart 3 provides a snapshot of the Island County economy using data of an input-output model called IMPLAN. Across the United States, economic-development agencies use IMPLAN to calculate the benefits and costs of various decisions. One of the virtues of IMPLAN over the use of, say, U.S. Census data, is that it integrates multiple, disparate federal and private data bases. The year of the data -- the most recent one available -- is 2014. The inputs in the model, drawn from federal and state data, assume that 79,275 County residents live in 32,835 households, with an average household income of \$106,949. Note that *household* income represents more than one income earner. Also, the relatively high average reflects a small number of higher income earners averaged against a much larger number of lower income earners.¹⁷

Chart 3
Overview of the Island County Economy (2014)

Gross Regional Product	\$2,562,300,743
Total Personal Income	\$3,511,647,000
Total Employment	33,495
Population	79,275
Total Households	32,835
Average Household Income	\$106,949

Chart 4 shows the supply and demand of the Island County economy. IMPLAN is constructed like an accountant's balance sheet, so the two sides, production and

a change in defense spending by the President, Congress, or the Joint Chiefs could lead to huge and sudden disruptions in the local economy.

¹⁷ IMPLAN's household income number is higher than that reported in the Census (which reported a median household income in 2015 of \$58,815) for two reasons. IMPLAN looks at average income, while Census looks at the 50th percentile. IMPLAN also includes non-wage sources of personal income, including self-employment income, rents, dividends, interest, income supplements, retirement, and transfer payments. For further explanation, see: http://support.implan.com/index.php?option=com_content&view=article&id=383#qualitative-differences.

consumption, always equal one another. The size of each side—and the size of the Island County economy—is roughly \$2.6 billion per year.

There are two important points in Chart 4 to highlight: Because of the Navy's huge role in the Island County economy, federal demand is about two-thirds the size of all household demand. This is an unusually high level of dependence of a local economy on a single industry. Also, imports are more than \$3.6 billion greater than exports. *This means that the County is running a serious annual trade deficit which, if not remedied over time, will steadily impoverish the economy.*¹⁸

Chart 4
Supply and Demand in the Island County Economy (2014)

Supply (Value Added)		Final Demand	
Employee Compensation	\$1,348,595,843	Households	\$3,299,544,862
Proprietor Income	\$164,624,227	Local/State Government	\$331,468,311
Other Property Type Income	\$859,557,080	Federal Government	\$2,161,193,223
Tax on Production and Imports	\$189,523,592	Capital	\$464,058,305
Total Value Added	\$2,562,300,742	Exports	\$642,105,277
		Imports	-\$4,229,570,932
		Institutional Sales	-\$106,498,252
		Total Final Demand	\$2,562,300,795

Chart 5 shows the breakdown of jobs in the *private* sector in the County, compared with that of the United States. The relatively high percentage of jobs in retail, arts, and accommodation is not surprising for a tourism-dependent economy like Island County, but these are also sectors with relatively low wages. The relatively smaller presence of manufacturing, wholesale, professional services, and administrative services, which typically have higher wages, further depresses incomes. The relatively high levels of construction and health care underscore the relatively high number of retirees.

The data in Chart 5 above are drawn from the U.S. Census Bureau. It presents jobs organized into what's called North American Industrial Classification Scheme (NAICS), an inventory of about 1,100 sectors which currently excludes public employees, self-employees, and farmers.¹⁹ In other words, the Navy is not included.

Chart 6, drawn from IMPLAN, presents a more comprehensive breakdown of the jobs, wages, and output in Island County economy. It fixes the deficiencies of NAICS, and includes public employees, self-employees, and farmers. It shows that the single largest

¹⁸ Unlike a national economy, which can lower the value of its currency to "adjust" to a trade deficit (by making exports cheaper and imports more expensive), a local economy cannot influence the value of its currency.

¹⁹ Even though farmers and ranchers are excluded from NAICS, agricultural services are not. Additionally, companies in NAICS Code "11---" include logging, hunting, and horticulture.

employment category is government services, which provides almost a third of all the jobs. The Navy, according to IMPLAN, was employing 6,170 people in 2014.

Chart 5
NAICS Composition of Private Sector Jobs on Island County (2014)²⁰

NAICS Code	Sector Description	U.S.	Island County
11----	Agriculture, Forestry, Fishing and Hunting	0%	na
21----	Mining, Quarrying, and Oil and Gas Extraction	1%	na
22----	Utilities	1%	1%
23----	Construction	5%	7%
31----	Manufacturing	9%	6%
42----	Wholesale Trade	5%	1%
44----	Retail Trade	13%	19%
48----	Transportation and Warehousing	4%	1%
51----	Information	3%	na
52----	Finance and Insurance	5%	4%
53----	Real Estate and Rental and Leasing	2%	2%
54----	Professional, Scientific, and Technical Services	7%	5%
55----	Management of Companies and Enterprises	3%	na
56----	Administrative, Support and Waste Management	9%	4%
61----	Educational Services	3%	2%
62----	Health Care and Social Assistance	16%	22%
71----	Arts, Entertainment, and Recreation	2%	3%
72----	Accommodation and Food Services	11%	14%
81----	Other Services (except Public Administration)	4%	7%

²⁰ The initials "na" mean that the data are not available from the Census Bureau, because there are a small number of firms and revealing data would compromise confidentiality.

Chart 6
IMPLANS Picture of Jobs, Output, and Wages on Island County Sectors (2014)

IMPLAN Sector	Employment	Output	Employee		Other Property		Indirect Business Tax
			Compensation	Proprietor Income	Type Income		
Farming, Ranching, & Forestry	716	\$42,920,394	\$7,126,931	\$9,336,480	\$8,899,309	\$1,992,611	
Mining, Oil, and Gas	94	\$17,301,764	\$881,483	\$350,024	\$2,748,966	\$148,302	
Energy & Utilities	63	\$26,118,374	\$3,204,686	\$28,967	\$4,398,505	\$5,420,626	
Construction	1,645	\$259,945,096	\$28,629,000	\$31,672,855	\$12,555,828	\$4,196,633	
Manufacturing							
* Food, Beverages, & Tobacco	149	\$51,670,084	\$3,513,173	\$420,860	\$1,659,236	\$1,826,412	
* Fibers, Textiles, & Clothing	44	\$8,774,429	\$1,119,587	\$395	\$60,769	\$109,576	
* Wood and Wood Products	6	\$923,525	\$105,907	\$2,368	\$79,525	\$3,474	
* Paper, Paper Products, & Printing	68	\$21,611,547	\$3,462,367	\$64,710	\$1,369,688	\$109,326	
* Petroleum-Based Products	2	\$1,787,752	\$142,882	\$0	\$215,617	\$42,599	
* Rubber, Glass, Stone, & Concrete Products	11	\$2,794,076	\$364,600	\$0	\$88,853	\$30,579	
* Metals	21	\$10,162,570	\$1,142,677	\$0	\$1,853,289	\$56,782	
* Metal Products	27	\$5,415,414	\$1,085,234	\$0	\$525,710	\$52,273	
* Machinery & Equipment	47	\$7,466,635	\$1,265,547	\$2,457	\$212,735	\$38,459	
* Computers, Electronics, & Appliances	144	\$38,517,732	\$5,009,786	\$70	\$312,979	\$304,154	
* Vehicles, Boats, & Planes	335	\$216,400,179	\$26,365,091	\$1,486,969	\$29,326,503	\$1,227,194	
* Furniture	10	\$1,250,924	\$304,867	\$0	\$60,565	\$6,349	
* Health Equipment	11	\$2,758,378	\$124,724	\$452	\$82,516	\$27,554	
* All Other Manufacturing	40	\$6,856,070	\$302,227	\$1,675	\$109,181	\$216,026	
Wholesale Trade	302	\$61,565,277	\$14,170,474	\$2,101,381	\$7,074,438	\$12,250,274	
Retail	3,406	\$249,239,517	\$67,524,534	\$22,587,807	\$10,153,188	\$52,776,497	
Transportation	420	\$51,487,398	\$12,182,897	\$2,766,983	\$4,027,376	\$1,407,569	
Warehousing & Storage	9	\$1,103,471	\$459,799	\$118,160	\$122,459	\$8,785	
Services							
* Information Businesses	273	\$90,471,340	\$15,315,702	\$920,812	\$6,147,513	\$3,048,069	
* Banking & Finance	893	\$116,786,126	\$16,497,292	\$2,784,276	\$15,393,410	\$3,428,606	
* Real Estate & Leasing	1,778	\$611,839,532	\$8,671,047	\$10,250,999	\$279,177,891	\$65,745,955	
* Professional Services	4,321	\$355,931,864	\$92,714,656	\$31,953,232	\$29,010,439	\$14,524,178	
* Private Education	462	\$24,764,838	\$8,938,017	\$3,469,199	\$153,485	\$968,407	
* Health & Human Services	2,662	\$152,455,674	\$59,342,491	\$14,331,885	\$6,338,829	\$2,646,596	
* Entertainment, Tourism, & Food Services	3,340	\$177,991,556	\$48,839,752	\$7,062,224	\$19,301,723	\$19,444,394	
* Personal Services	854	\$57,251,354	\$13,359,872	\$22,605,680	\$645,676	\$6,714,043	
* Churches, Nonprofits, & Unions	220	\$19,378,548	\$4,647,283	\$303,307	\$7,017,851	\$1,504,273	
* Household Operations	208	\$1,822,832	\$1,822,832	\$0	\$0	\$0	
* Government Services	10,913	\$1,432,134,823	\$899,958,646	\$0	\$410,032,926	-\$10,752,975	
	33,495	\$4,126,879,089	\$1,348,595,843	\$164,624,227	\$859,557,060	\$189,523,592	

(2) The Relative Impact of Military Jobs

As noted at the beginning of this study, state and local economic-development agencies tend to see the large presence of the Navy in Island County strictly in terms of its benefits. And unquestionably every military dollar spent in Island County does generate some jobs, wages, local contracts, and tax revenues. What is not discussed, however, is that a military dollar tends to generate all these economic benefits at a substantially lower rate than a nonmilitary dollar, because the military dollar tends not to be re-spent locally.

University of Massachusetts economists Robert Pollin and Heidi Garrett-Peltier recently compared the job impacts of \$1 billion invested in the military versus \$1 billion invested in clean energy, health care, and education.²¹ They also compared the impacts of a \$1 billion tax cut. The military investment wound up generating the smallest employment impact—11,200 jobs. Clean energy yielded 16,800 jobs, health care 17,200 jobs, and education 26,700 jobs. Even tax cuts generated more jobs than did military spending.

Using IMPLAN (which is also the tool Pollin and Garrett-Peltier use), we perform a similar exercise for Island County. Chart 7 shows the impact of creating 1,000 new jobs in the military versus 1,000 new jobs in ten other exemplary sectors: farming, construction, manufacturing, information services, financial services, professional services, health services, and tourism. Note that the total new wages include both direct pay and benefits.

Chart 7
Impact of 1,000 New Jobs in Military vs. Other Sectors

IMPLAN Sector	IMPLAN Sector Description	Total New Jobs	Total New Wages	Total New Taxes
4	Fruit Farming	1,179	\$24,914,876	\$1,448,400
61	Residential Construction	2,541	\$71,999,276	\$20,767,246
94	Bread & Baker Products	1,258	\$38,256,560	\$10,954,872
357	Aircraft Manufacturing	1,812	\$117,314,855	\$9,938,568
398	Electronics and Appliance Stores	1,335	\$69,407,217	\$15,202,382
423	Motion Picture & Video Industries	1,955	\$32,306,931	\$10,627,114
439	Funds & Trusts	2,173	\$84,546,664	\$7,964,736
449	Architectural, Engineering Services	1,624	\$44,838,599	\$4,761,540
482	Hospitals	1,600	\$108,606,962	\$6,147,386
499	Hotels and Motels	1,295	\$32,731,723	\$29,020,043
536	Military	1,327	\$108,805,055	\$3,299,928

²¹ Robert Pollin & Heidi Garrett-Peltier, "The U.S. Employment Effects of Military and Domestic Spending Priorities: 2011 Update," monograph, Political Economy Research Institute, University of Massachusetts-Amherst, December 2011.

Interpreting the results in Chart 7 requires an appreciation that each total (for jobs, wages, and taxes) includes direct effects, indirect effects, and induced effects.²² The direct effects are the 1,000 jobs hypothetically created, which then generate increased wages and taxes. Indirect effects are what happens when expanded local industries buy more local inputs. And induced effects are what happens when the employees of the expanded local industries purchase more local goods and services. Subtracting the 1,000 direct jobs, we can see that in the eleven exemplary sectors, the military is the fourth poorest generator of indirect and induced jobs.

Because the benefits of Navy personnel are relatively high, military jobs have the second highest impact on total wages. But because so much of this income is spent in tax-exempt ways, military jobs are the second poorest generator of tax revenue. Only fruit farming generates less tax revenue, because farmer incomes are low.

Thus, while military jobs come with good benefits, they ultimately have relatively small impact on local economic development. This underscores why it's imperative for Island County to focus its small economic-development team and budget on diversifying the local economy and growing other, nonmilitary industries.

(3) Leakage in Island County

Just how leaky is the Island County economy? That is, to what extent are residents buying goods and services from outside the County? IMPLAN can be used to answer these questions. Chart 8 summarizes the bottom line. *Overall, for every dollar spent by Island County residents, 59 cents leak out. Compared to similar counties, this is an unusually high level of leakage.*²³ This suggests a huge opportunity for diversifying the Island County economy through greater local production for local needs—what economists call import replacement. Every cost-effective local substitution means fewer purchasing dollars leaking out, a higher local economic multiplier, and more income, wealth, and jobs.

²² One caveat on these calculations is that IMPLAN assumes that all government sectors only generate payroll expenditures. Unlike private business sectors, no indirect expenditures—that is, base expenditures on local food, electricity, and so forth—are assumed. According to the Berk and Hodgins study, *supra* note 2, base expenditures are about 2.5% the level of Navy payroll expenditures. Were indirect impacts of the Navy included, the total results would slightly (2-3%) higher.

²³ The author has performed leakage analyses over the past decade for about two dozen counties and regions.

Chart 8
Leakage in the Island County Economy

Current Spending on Local Production	\$2,992,662,152
Additional Production for Self-Reliance	\$4,370,768,905
Total Demand for Local Production	\$7,363,431,057
Rough Level of Leakage	59%

Chart 9 reinforces this point by showing how many IMPLAN sectors lack self-reliance. IMPLAN combines the 1,100 NAICS sectors in 539 sectors. Island County is self-reliant in only 4% of these sectors. About 78% of the sectors are less than 20% self-reliant, and two thirds of the sectors have almost zero activity in them. Appendix II presents a comprehensive list of the degree of the County's self-reliance in every one of the 539 IMPLAN sectors.

Chart 9
Leakiness of IMPLAN's 539 Sectors in Island County

	Number of Sectors	Percent of Sectors
Total IMPLAN Sectors	539	100%
>99% Self-Reliant Sectors	22	4%
<50% Self-Reliant Sectors	453	84%
<20% Self-Reliant Sectors	418	78%
<1% Self-Reliant Sectors	361	67%

As Appendix I details, economic development works is most effective when new jobs are created in businesses that are locally owned and meet (initially at least) local demand. What would happen if, with a magic wand, the 6,170 Navy jobs could be converted into civilian economy jobs? And better still, what if those jobs could be redistributed to other sectors of the economy in a way that would have the greatest impact on reducing leakage and increasing local self-reliance? IMPLAN enables us to model the impacts of this hypothetical shift.

Before sharing our results, we should explain that we only redistributed the 6,170 Navy jobs into sectors that were plausible and preferable.

- Among the sectors we deemed implausible were those where natural resources or policies were already precluding any economic activity, such as certain kinds of farming (e.g., cotton and sugar cane), commercial logging, and mining.

- Among the sectors we deemed not preferable were tobacco and fossil fuel burning for energy.
- Additionally, we did not assume any changes in government employment except in the military.

Chart 10 shows the results. As would be expected, the conversion of 6,170 jobs from the Navy to private industry has very little effect on direct employment. But the induced effects, as local industries start purchasing from other industries, are huge. Overall, conversion of 6,170 Navy jobs to 6,170 nonmilitary jobs creates 3,909 *additional* jobs (beyond those converted), expands the economy by \$503 million, and generates \$153 million more in taxes.²⁴ Of these taxes, about \$142 million come into the coffers of state and local government.

Chart 10
Impact from Converting All Navy Jobs to Private Sector Jobs

Impact Type	Jobs	Labor Income	Value Added	Business Taxes
Direct Effect	62	(\$185,102,853)	\$332,308,420	\$127,221,866
Indirect Effect	4,074	\$113,174,104	\$185,183,318	\$28,133,139
Induced Effect	(227)	(\$6,172,330)	(\$14,154,501)	(\$2,335,805)
Total Effect	3,909	(\$78,101,079)	\$503,337,238	\$153,019,200

The one negative effect is a reduction of labor income by \$78 million, largely reflecting the disappearance of generous benefits paid to Navy personnel. How, then, can wages go down but the economy still expand? Because counterbalancing the loss of wages are a significant growth in proprietor income, rents, and tax revenues, all of which generate multiplier effects within the local economy.

Again, the point of this exercise is not to argue for elimination of Navy jobs, but rather to highlight their relatively weak impact on the local economy. It underscores why economic development ultimately needs to diversify the economy by plugging leaks through expansion of private industries. Given that the Navy's presence could disappear overnight with an act of Congress, it would be prudent for Island County plan seriously to reduce its dependence on military spending.

²⁴ As discussed in note 22, *supra*, IMPLAN does not include indirect local expenditures by the Navy associated with the based. Were these included, the net impacts of the shift would probably be slight (2-3%) smaller.

III. External Costs

The third type of cost the Navy imposes on Island County is the “external” cost—that is, the cost borne by the general public and not compensated by the Navy. Economists have long recognized that “internalizing” external costs can lead to more efficient and fair outcomes. If for example a factory emits air pollution, forcing the factory to pay for the damage it causes downwind motivates it to install scrubbers that reduce its pollution. Failing to internalize the externality removes any incentive for the factory to manage its own pollution.

The Naval Air Station Whidbey Island Complex currently generates myriad external costs and has little incentive to internalize them. Those imposed by just one of its many programs—the deployment and training of pilots for its EA-18G “Growler” aircraft—are extensively reviewed in the 1,000+ page *Draft Environmental Impact Statement (DEIS)* published in November 2016. The report presents dozens of potential problems with the program and then largely discounts or dismisses all them. *In no instance does it actually attempt to assess the dollar cost of any of these externalities.*

While it is beyond the scope of this study to place a dollar value on all these costs—many are speculative and require probabilistic analysis—two of the costs discussed in the *DEIS* are especially high, clearly visible right now, and susceptible to empirical measurement: the human health impacts of Growler noise, and the reduced value of private property resulting from Growler noise. We analyze both below, and then discuss briefly other more speculative—but potentially costly—impacts from the Naval Air Station.

(I) The Costs of Noise

The most significant public concerns about the operations from the Naval Air Station surround the noise emanating from its Growler aircraft. The nickname “Growler” comes from the plane’s unusual loudness, and consequently the *DEIS* devotes more space and analysis to this one issue than any other. As shown in Chart 11, the *DEIS* estimates that the current level of the program (called “No Action”) is adversely effecting more than 11,000 residents. The metric the Navy uses is a weighted average of loud and quiet periods called the Day Night Average Sound Level (DNL). The Navy focuses on three concentric areas of DNL impact: those exposed to average noise levels between 65 and 70 decibels (dB), those exposed to between 70 and 75 dB, and those exposed to above 75 dB.

The use of the DNL metric is controversial, because it averages very high levels of sound on a few days with a large number of quiet days.²⁵ Careful measurement on the ground of Growler noises by the National Park Service in 2015 found “acoustic events” from

²⁵ “DNL is...a ‘noise averaging method’ that has been criticized because it does not address annoyance. Annoyance can therefore be understated by averaging.” Randall Bell, “The Impact of Airport Noise on Residential Real Estate,” *The Appraisal Journal*, July 2001, p. 320.

Growler overflights as high as 113 dBA.²⁶ This study also points out that human blood pressure and heart rates increase at 35 dB, that the World Health Organization recommends that the maximum noise level inside a bedroom be 45 dB, and that normal conversations are interrupted by sound above 60 dB.²⁷ (Note that decibels are measured on a logarithmic scale, which means that a 60 dB noise exerts ten times the sound pressure as a 50 dB noise.) The sidewalks of a busy street are about 80 dB, a jackhammer is 100 dB, and a train horn close up is 120 dB.²⁸ In plain language, metrics that present periodic bursts of jackhammer noise as being just like the average humming of traffic are very misleading. In submitted commentary on the DEIS, Dr. [REDACTED], a noted sound engineer, argues that this kind of analysis is obsolete and is likely to cause an underestimation of the ultimate impact and the population effected.²⁹

Chart 10
Island County Residents Impacted at Different Noise Levels

	65-<70 dB	70-<75 dB	>75 dB	Total
No Action	3,875	3,165	3,993	11,033
Alternative 1				
- Scenario A	4,355	2,958	5,734	13,047
- Scenario B	4,359	3,505	5,646	13,510
- Scenario C	5,183	3,400	5,223	13,806
Alternative 2				
- Scenario A	4,264	2,985	5,554	12,803
- Scenario B	4,355	3,547	5,545	13,447
- Scenario C	5,055	3,454	5,056	13,565
Alternative 3				
- Scenario A	4,348	2,970	5,675	12,993
- Scenario B	4,363	3,505	5,633	13,501
- Scenario	5,024	3,443	5,010	13,477

The DEIS reviews nine different alternatives that would raise the exposed population to almost 14,000. It makes no effort to quantify the health costs of a DNL above 65 dB, because it claims that at these DNL levels “no studies have shown a definite causal and significant relationship between aircraft noise and health.”³⁰

²⁶ National Park Service, Ebey’s Landing National Historical Reserve Acoustical Monitoring Report, Natural Resource Report NPS/ELBA/NRR-2016/1299, p. vi.

²⁷ *Ibid.*, p. viii.

²⁸ *Ibid.*, p. 10.

²⁹ Personal Communication, 4 January 2017.

³⁰ DEIS, p. 3-22.

In fact, the Department for Environment, Food, and Rural Affairs for the United Kingdom (UK), examining the same evidence, has come to the opposite conclusion: “Noise can have an effect on health, wellbeing, productivity, and the natural environment.”³¹ While the Department concedes that measurement of ill effects on productivity and environmental damage from noise is difficult, it argues that there is convincing evidence connecting loud noise exposure to measurable impacts like heart attacks, hypertension, strokes, and dementia. To help guide decision-makers evaluating projects with significant noise impacts, they have produced two tables that summarize their best estimates of the associated economic costs. One table estimates the health costs of noise, and the other estimates the amenity costs of sleep disturbance. We use these tables to estimate the total health costs of the Growler program.

Chart 12 applies the midpoints of the two sound-impact areas identified in the *DEIS*—67.5 dB and 72.5 dB—to the two UK charts.³² For the highest sound-impact area—75 dB plus—we use 80 dB as a reasonable single point. The Chart shows that at the three sound levels, the annual costs per affected person are between \$229 and \$275.

Chart 12
UK Estimates of Damages Per Affected Person
(1 Pound = \$1.25)

	67.5 dB	72.5 dB	80 dB
Health Cost	\$110.41	\$132.30	\$155.89
Sleep Disturbance Cost	\$118.99	\$118.99	\$118.99
Total Cost	\$229.40	\$251.29	\$274.88

Chart 13 applies these data to the population areas identified in the *DEIS*. If the Growler program remained at its current level, its cost would continue to be \$2.8 million per year. If it is expanded, as the *DEIS* advocates, annual costs could grow to as high as \$3.5 million.

The Growlers fully replaced the predecessor planes, called the Prowlers, in 2010. Thus, in the seven years between 2010 and 2017, the cost of just the Growler program to public health on Island County thus far has been \$18.9 million.

³¹ Department for Environment, Food and Rural Affairs, “Noise Pollution: Economic Analysis,” 9 April 2013 (updated 19 December 2014), “Overview,” at www.gov.uk/guidance/noise-pollution-economic-analysis.

³² The UK charts are calibrated in “change in noise metric.” The “change” is effectively the level of the Growler DNL, however, because the scale is logarithmic. A 60 dB DNL generates a thousand times more sound pressure than 30 dB DNL, the level of the quiet enjoyed by a Whidbey Island resident without the Growlers. Because the change from 1 to 1,000 is 999, the Growler DNLs give the proper indication of which points to choose on the UK charts. Hilary Notley, Senior Acoustic Analyst for the UK Department of Environment, Food, and Rural Affairs, Personal Communication, 25 January 2017.

Chart 13
UK Estimates of Damages Applied to DEIS Population Envelopes

	65-<70 dB	70-<75 dB	>75 dB	Total
No Action	\$888,925	\$795,325	\$1,097,576	\$2,781,826
Alternative 1				
- Scenario A	\$999,037	\$743,308	\$1,576,133	\$3,318,479
- Scenario B	\$999,955	\$880,763	\$1,551,944	\$3,432,662
- Scenario C	\$1,188,980	\$854,378	\$1,435,672	\$3,479,030
Alternative 2				
- Scenario A	\$978,162	\$750,093	\$1,526,656	\$3,254,911
- Scenario B	\$999,037	\$891,317	\$1,524,182	\$3,414,536
- Scenario C	\$1,159,617	\$867,947	\$1,389,768	\$3,417,332
Alternative 3				
- Scenario A	\$997,431	\$746,324	\$1,559,916	\$3,303,671
- Scenario B	\$1,000,872	\$880,763	\$1,548,371	\$3,430,006
- Scenario C	\$1,152,506	\$865,183	\$1,377,124	\$3,394,812

These estimates of health costs are arguably too conservative for five reasons:

- First, as noted, the Navy's use of DNL averages understates the health problems imposed on residents, because it masks the bursts of high and extremely damaging sounds. Compared to the previous generation of Navy planes being flown in Island County, the Prowlers, the Growlers emit very high intensities of low frequencies that have an intense effect on humans.³³ Were appropriate adjustments made, many more residents would be listed in the concentric areas marking the Navy's exposure categories, and higher exposure categories (not just ">75 dB") would be identified—all of which would increase the consequent costs.
- The value of the British pound collapsed after the June 2016 "Brexit" vote, and now is at its lowest point against the U.S. dollar in thirty years. At the time the UK study was written, the conversion rate was over \$1.6 dollars per pound, which would increase the damage numbers here by a third.
- Underlying the British calculations are assumptions about medical care for noise-induced problems and about the value of human life. In fact, medical expenses per capita in the United States are significantly greater than they are in the United Kingdom (UK medical costs are tightly controlled by its single-payer system). And the value of human life assumed in the UK model—

³³ [REDACTED], Comments on the DEIS, "Calculating Sound Averages That More Accurately Describe Environmental Impact," Forthcoming.

a\$36,600 to \$97,600, depending on demographics—is significantly lower than what U.S. lawsuits routinely award.

- Adjusting for the demographics of Whidbey Island would further increase the total level of damage. Older people, for example, are more vulnerable to heart attacks from all causes, including noise, and Island County’s population is significantly older than that of the United States or the United Kingdom.³⁴
- Finally, the UK cost estimates do not include lost productivity. But consider one glaring example of this uncounted cost in Whidbey Island: According to the *DEIS*, classrooms at the Oak Harbor High School and Crescent Harbor Elementary School are already being interrupted 4-5 times per hour for multiple school-time hours every week, and the rate and intensity of these interruptions will grow as the Growler program expands.³⁵ Teaching with significant interruptions every 10-12 minutes is exceedingly difficult. What are the costs of lost school time? Lost education? Student well being?

In sum, the \$18.9 million estimate of costs imposed on the health of Island County residents between 2010 and the present are almost certainly too low.

(2) The Costs of Reduced Property Values

A second important external cost is reduced property values. The *DEIS* cites general studies on the topic, most of them 20 to 40 years out of date, and concedes that “[e]nough data are available to conclude that aircraft noise has a real effect on property values.”³⁶ But it then chooses not to count the actual property damages on Island County. “Real property values,” the *DEIS* explains, “are dynamic and influenced by a combination of factors, including market conditions, neighborhood characteristics, and individual real property characteristics (e.g., the age of the property, its size, and amenities).”³⁷ In fact, enough data are available to make such an analysis for Island County.

Chart 14 compares the total assessed valuation of property in Island County with that of neighboring counties and Washington State generally.³⁸ Contrasting property values in 2007 (pre-financial crisis) with those of 2015 (the most recent data), we can see that

³⁴ See, e.g., Bel Marra, “Noise Pollution Health Risks in Seniors: Heart Disease, Stroke, and Hearing Loss,” *Hearing Health*, 9 October 2015. According to the U.S. Census Bureau, 23.2% of Island County residents are above 65, while only 14.5% of all Americans are in that age bracket. The comparable number for the United Kingdom is 17.8%. See <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates>.

³⁵ *DEIS*, p. 4-38.

³⁶ *Ibid.*, p. 4-232.

³⁷ *Ibid.*, pp. 4-232-33.

³⁸ Washington State Department of Revenue, Property Tax Statistics 2015, monograph, available at http://dor.wa.gov/content/aboutus/statisticsandreports/stats_proptaxstats_report.aspx.

Island County's property values have shrunk more than all the surrounding counties except Kitsap (another Navy-dependent economy). While property values in Washington State generally rose by about 10% during this period, those on Island County fell by almost 13%. Why?

A second comparison of interest is between 2010 (when the Growler flight tests became fully engaged) and 2015. Here, Island County performed better than surrounding counties, losing only about 3% of its assessed property value. In Washington State generally during this period, property values rose by 1.5%, but surrounding counties lost 7-24% of their assessed valuation. This has led to a general impression that the Island County economy is booming and that the Growlers have had no negative impact on property values.

A more complex picture emerges, however, if the focus shifts to the 27 subdivisions that are currently most directly under the flight path of the Growlers.³⁹ In many of these subdivisions, large numbers of "For Sale" signs are now visible as residents now seek to flee the loss of peace and quiet in their homes. Over 2010 to 2015, the collective assessed property valuation in these subdivisions, as shown in Chart 15, has plummeted 6.64%, or 3.35% more than the Island overall. That amounts to a total property value loss in these subdivisions of about \$9.8 million.

³⁹ These data were made available by special request from the Island County Assessor's Office. There are 28 subdivisions under the flight path, but one, On Frosted Pond, saw considerable housing construction during this period, so changes in its property valuation are not comparable.

Chart 14
Changes in Assessed Property Values between 2007 and 2015
Island County, Surrounding Counties, and Washington State

Year	Island	Jefferson	Kitsap	Snohomish	Skagit	San Juan	State
2007	\$13,966,045,784	\$4,618,248,685	\$31,903,513,049	\$95,519,249,655	\$15,038,859,402	\$6,974,272,646	\$800,949,389,329
2008	\$14,729,387,220	\$5,056,667,107	\$31,901,494,279	\$97,810,393,346	\$15,706,785,645	\$7,904,618,853	\$875,941,275,493
2009	\$14,452,006,504	\$5,311,207,280	\$29,021,620,917	\$90,197,192,681	\$14,964,746,348	\$8,064,934,225	\$818,067,274,838
2010	\$12,546,359,697	\$5,327,550,880	\$27,716,265,936	\$81,763,046,539	\$14,227,276,096	\$8,024,385,667	\$780,116,556,730
2011	\$12,552,367,094	\$4,830,828,030	\$26,461,497,915	\$72,601,537,469	\$13,577,446,902	\$7,919,989,258	\$747,277,392,378
2012	\$12,052,722,301	\$4,549,745,475	\$25,444,024,968	\$68,642,718,641	\$13,244,632,127	\$6,209,389,933	\$720,274,017,942
2013	\$11,864,504,769	\$4,316,339,253	\$25,208,432,971	\$75,289,712,921	\$13,387,944,549	\$6,147,487,805	\$760,198,391,066
2014	\$11,959,902,648	\$4,508,093,057	\$25,140,607,793	\$84,038,078,352	\$13,616,166,938	\$6,124,904,836	\$830,215,285,152
2015	\$12,170,669,944	\$4,587,247,864	\$27,160,214,037	\$88,260,207,637	\$14,670,422,177	\$6,217,488,278	\$883,968,552,219
From 07 to 15	-12.86%	-0.67%	-14.87%	-7.60%	-2.45%	-10.85%	10.37%
From 10 to 15	-2.99%	-15.12%	-13.37%	-6.83%	-9.01%	-24.06%	1.48%

Chart 15
Changes in Assessed Property Values
In Island County Subdivisions Directly Under the Growler Flight Path

Assessor Code	Subdivision	Number of Properties	Value 2010	Value 2015	% Change
6010-02	Admirals Cove - 2	19	\$4,200,009	\$4,072,276	-3.04%
6010-03	Admirals Cove - 3	75	\$19,891,641	\$19,640,732	-1.26%
6010-04	Admirals Cove - 4	29	\$6,825,994	\$7,051,534	3.30%
6010-05	Admirals Cove - 5	67	\$12,838,433	\$13,014,412	1.37%
6010-06	Admirals Cove - 6	88	\$19,419,377	\$19,004,624	-2.14%
6010-07	Admirals Cove - 7	42	\$8,667,935	\$8,508,149	-1.84%
6430	Crescent Acres	27	\$6,344,281	\$5,588,221	-11.92%
6515	Dugualla Bay Heights - 1	35	\$11,927,025	\$9,971,598	-16.39%
6515-02	Dugualla Bay Heights - 2	20	\$5,684,650	\$5,741,310	1.00%
6515-03	Dugualla Bay Heights - 3	36	\$10,685,110	\$10,947,040	2.45%
6515-04	Dugualla Bay Heights - 4	21	\$8,229,754	\$7,595,405	-7.71%
6515-05	Dugualla Bay Heights - 5	11	\$4,096,452	\$4,052,168	-1.08%
6515-06	Dugualla Bay Heights - 6	5	\$1,616,735	\$1,534,694	-5.07%
6515-07	Dugualla Bay Heights - 7	11	\$5,309,863	\$4,830,290	-9.03%
6515-08	Dugualla Bay Heights - 8	19	\$7,192,801	\$6,727,185	-6.47%
6515-09	Dugualla Bay Heights - 9	47	\$14,019,000	\$13,812,591	-1.47%
7020	Goldie Road Acres	2	\$250,916	\$193,454	-22.90%
7355-02	Ledgewood Beach - 2	4	\$1,490,031	\$384,139	-74.22%
7355-03	Ledgewood Beach - 3	45	\$14,978,744	\$14,807,483	-1.14%
7575	Northgate Terrace	243	\$33,824,464	\$27,214,053	-19.54%
7585	Oak Harbor	26	\$6,451,397	\$6,089,457	-5.61%
7755	Polnell Shores	95	\$27,840,559	\$26,404,337	-5.16%
8250	Sunrise Beach	5	\$3,180,582	\$2,538,763	-20.18%
8255	Sunrise Hills - 1	30	\$9,898,490	\$8,616,936	-12.95%
8255-02	Sunrise Hills - 2	24	\$7,985,274	\$7,044,873	-11.78%
8255-03	Sunrise Hills - 3	30	\$12,535,972	\$12,118,785	-3.33%
8542	Frostad Road - Assessor's P	11	\$1,862,646	\$1,985,336	6.59%
Total			\$267,248,135	\$249,489,845	-6.64%

A reasonable estimate of lost property value almost certainly will rise in the coming years, for four reasons:

- First, many home buyers are still unaware of the severity of the problem of jet noise when they move in. Real estate brokers have a strong incentive to understate the problem, and the legal requirements for disclosure are loose. In other words, the market has yet to fully absorb information about the problem. As it does, better information will likely depress prices further.
- Second, assessed valuation is almost always a lagging indicator of the real property value by several years. The financial crisis that hit housing prices across America especially hard technically struck in 2008. But as Chart 13 shows, the impacts on assessed valuation across the state did not register until 2010-12 (depending on the county).
- Third, as the *DEIS* explains, the number of Growler tests and their flight footprint will expand over the next five years. This will increase the number of properties adversely affected.
- Fourth, the Navy will issue an Air Installations Compatible Use Zones Report (AICUZ) after the final *Environmental Impact Statement* is issued to define an "Accident Potential Zone" (APZ) that would prohibit further development. This could further reduce property values by diminishing landowners' ability to build houses and by increasing insurance rates.

(3) Other Major External Costs

As noted at the outset, this study is limited to those costs that are visible and measurable. There are, however, several costs that could dwarf the costs mentioned so far, but are, for the moment at least, speculative. Three in particular are worth mentioning.

First is the potential cost of a catastrophic accident. The Navy's policy is generally not to conduct training flights in populated areas like Whidbey Island, because the area underneath is an "Accident Potential Zone" (APZ). As noted, the Navy may recommend a prohibition on *additional* development on these properties after the EIS is finalized. But even with the existing level of development, the dangers of a major accident are potentially huge. A plane accidentally crashing into a public school, a hospital, or a fuel storage facility, for example, could conceivably lead to hundreds of deaths and hundreds of millions of dollars of liability. The Growlers, moreover, have a significant rate of accidents and mishaps that make these worries not just abstract.⁴⁰

⁴⁰ Robert Wilbur, Maryon Attwood, Neal Sims, and Mark Harmon, "Outlying Field Coupeville: Its Time Has Passed," monograph, October 2016, pp. 40-44, 79-84. The authors make the points that military jets are 67 times more likely to crash than passenger jets, and that the F-18 frame (which the Growler uses) has had an accident rate 5.5 times greater than the predecessor Prowler. The report contains appendices with comprehensive lists of worrisome Prowler and Growler mishaps.

Second is the potential cost of toxic releases. The Navy has recently found a number of wells mid-island with water that may be contaminated by a very toxic class of chemicals called PFASs that are used in its fire-retardant foams.⁴¹ A scientific paper on the subject in 2016 concludes that “PFAS contamination is poorly reversible and...*the societal costs of cleanup will be high.*”⁴² In July 2015, after modest levels of PFAS were found in public drinking water just north of Philadelphia, the Navy agreed to pay \$8.8 million for cleanup of wells in the Horsham Water and Sewer Authority and \$4 million for cleanup of the neighboring Warminster Municipal Authority.⁴³ In October 2015, a jury awarded a woman suing DuPont for kidney cancer caused by PFAS contamination \$1.6 million, and now the law firm of Weitz & Luxenberg is seeking a multi-million dollar settlement for PFAS damages caused by the Willow Grove Naval Air Station.⁴⁴ The New York State Department of Environmental Conservation and Department of Health recently sent a letter to the federal Environmental Protection Agency seeking reimbursement for the roughly \$25 million the state has already spend cleaning up PFAS contamination in drinking water—and for another \$50 million of anticipated future costs.⁴⁵

Third is the potential cost to the local tourism economy. Tourists are directly spending \$180 million per year in Island County—a significant part of the overall economy.⁴⁶ There is already anecdotal evidence that campers are demanding refunds when they experience a night of jet noise.⁴⁷ Should word of the noise problems spread, not to mention more reports of PFAS contamination of local water supplies, this could ultimately shave tens of millions of dollars of activity from the Whidbey Island economy. Unfortunately for Island County, campers, hikers, and nature lovers can find many quiet and clean-water alternatives elsewhere in the Pacific Northwest.

Risk has long been understood to equal the probability of an adverse event multiplied by the probability of its occurrence. All three of the costs mentioned here are potentially enormous, but the probabilities are unclear. The Navy and public officials alike must

⁴¹ Jessie Stensland, *Whidbey News-Times*, 29 October 2016. See also, Mitch Pittman, “Navy Testing Wells on Whidbey Island for Possible Contamination,” 11 November 2016. <http://komonews.com/news/local/navy-testing-wells-on-whidbey-island-for-possible-contamination>

⁴² Emphasis added. IT Cousins et al., “The Precautionary Principle and Chemicals Management: The Example of Perfluoroalkyl Acids in the Groundwater,” *Environ. Int.*, September 2016, pp. 331-40.

⁴³ Sharon Lerner, “Poisoning the Well: Toxic Firefighting Foam has Contaminated U.S. Drinking Water,” *The Intercept*, 16 December 2015. (*The Intercept* is an online, investigative-journalism site.)

⁴⁴ Associated Press, “Residents Near Former Willow Grove Base Sue Over Contaminated Drinking Water,” *The Morning Call*, 16 September 2016.

⁴⁵ Michael Goot, “State Asks Feds for PFOA Cleanup Reimbursement,” *The Post Star*, 30 August 2016.

⁴⁶ Dean Runyan Associates, Washington State County Travel Impacts & Visitor Volume, 1991-2014, Prepared for the Washington Tourism Alliance, April 2015, p. 57.

⁴⁷ Hal Bernton, “Jets, Helicopters, Rockets: Military Plans More Uses of Northwest Public Lands,” *Seattle Times*, 4 April 2016.

assess the risks of these scenarios carefully, and monitor for early warning signs that they might be coming to fruition.

IV. Conclusions and Recommendations

Whatever the benefits of the Naval Air Station Whidbey Island, its activities are clearly imposing significant costs on Island County. This study underscores that these costs include:

- The non-collection of \$5.7 million in sales and property taxes each year, which at a minimum makes it more difficult for public agencies to provide needed infrastructure and services to everyone living in Island County;
- The opportunity costs of embracing a military-dependent economy, which, if the military jobs were converted to civilian jobs, could mean 3,909 new jobs and \$142 million more in state and local taxes;
- At least \$2.8 million in costs per year in the form of adverse health effects and sleep disturbances; and
- The loss (between 2010 and 2015) of \$9.8 million in private property value.

Chart 16 combines the public sector costs and external costs over twelve years, beginning in 2010 (when the Growler program was first introduced) and continuing until 2021 (which the *DEIS* chose as a reasonable cutoff date for estimating the impacts of the Growler program). Because some of these numbers are annual while others are one-time costs, and because all of them will change if the Growler program grows as planned, the following adjustments have been made:

- Earlier we noted that Island County EDC foresees the total population of active duty personnel and their dependents growing by 22% between 2015 and 2019. We therefore increase the anticipated tax losses by 22% evenly between 2015 and 2019, and then hold them constant. We also assume that the baseline calculation of \$5.7 million of tax loss remains constant before the spike of personnel growth.
- The health effects are annual and will grow if the Growler program expands. As a conservatism, the *DEIS* alternative with the lowest projected additional health costs (\$3.3 million per year) is assumed.
- The property value losses between 2010 and 2016 are spread out evenly at \$1.4 million per year. A reasonable assumption is that if the Growler sound footprint of >65 dB expands from about 11,000 to 13,000 residents (an 18% increase), properties overall will experience 18% more damage—from \$9.8 million to \$11.6 million. Spread over 2017 to 2021, the additional annual damage (\$1.8 million divided over five years) is \$360,000 per year.

As shown in Chart 16, the total adverse economic impact over this period is nearly \$122 million.

Chart 16
Total Public Costs of Naval Operations 2010-2021

	Health Effects	Property Losses	Tax Losses	Annual Losses
2010	\$2,800,000	\$1,400,000	\$5,700,000	\$9,900,000
2011	\$2,800,000	\$1,400,000	\$5,700,000	\$9,900,000
2012	\$2,800,000	\$1,400,000	\$5,700,000	\$9,900,000
2013	\$2,800,000	\$1,400,000	\$5,700,000	\$9,900,000
2014	\$2,800,000	\$1,400,000	\$5,700,000	\$9,900,000
2015	\$2,800,000	\$1,400,000	\$5,700,000	\$9,900,000
2016	\$2,800,000	\$1,400,000	\$6,025,000	\$10,225,000
2017	\$3,300,000	\$360,000	\$6,350,000	\$10,010,000
2018	\$3,300,000	\$360,000	\$6,675,000	\$10,335,000
2019	\$3,300,000	\$360,000	\$7,000,000	\$10,660,000
2020	\$3,300,000	\$360,000	\$7,000,000	\$10,660,000
2021	\$3,300,000	\$360,000	\$7,000,000	\$10,660,000
	\$36,100,000	\$11,600,000	\$74,250,000	\$121,950,000

To reiterate a point made at the outset of this study, the identification of costs should not be interpreted to mean that the appropriate recourse is to shut down naval operations. Rather, *the goal for decision makers should be to shift total costs of operations from the community to the Navy, and help the Navy maximize benefits and minimize costs over the long term.* Hence the following five recommendations:

(1) Begin Conversion Planning

Ever since the Cold War ended in the 1990s, hundreds of military-dependent communities have learned that assuming a local military base will remain open forever is unwise. In a rapidly changing world like today's, foreign policies and military commitments are in constant flux. While most observers believe that the Whidbey Naval Air Station will likely remain relevant in the short-term, Island County officials should start framing a plan for what happens if or when the military downscales or leaves.

The rapid advancement of technology may already be making the principal program of the Naval Air Station obsolete. The Growler's mission of jamming communications soon may be performed by unmanned aerial vehicles (UAVs) at a small fraction of the cost. In July 2016, the Navy launched a "swarm of drones" to demonstrate autonomous drone-to-drone communication and cooperation. Compared to the \$8 million per year⁴⁸ just to operate an \$81 million Growler, the Office of Naval Research recently demonstrated the comparable efficacy of 30 Raytheon-built Coyote UAVs for \$15,000 per unit. Vice Admiral [REDACTED], Deputy Commander of U.S. Fleet Forces Command, said,

⁴⁸ Selected Acquisition Report, RCS: DD-A&T (Q&A)823-378, 18 March 2015, gives Average Annual Operating Cost Per Aircraft (EA-18G) of \$8.123 million.

"This is going to change some of the calculus of how we operate." The swarm can conduct such tasks as intelligence-gathering or jamming communications that might otherwise be accomplished with manned aircraft.⁴⁹ If UAV costs drop, as expected, to \$10,000 in large-scale production, 800 UAVs could be purchased for less than the cost of just operating a single Growler for a year. These economic realities place the future of the Growler program and the current mission of the Naval Air Station in serious question.⁵⁰

Whatever the Navy decides to do, Island County urgently needs to focus its economic development on diversification. The current economy is remarkably brittle and leaky. And as the analysis here underscores, every new civilian job will generate significantly greater economic-development benefits than retention of an existing military job. Economic development priorities needs to be reset accordingly.

(2) Demand a PILOT Agreement with the Navy

To address current tax inequities, state and local decision-makers should negotiate an agreement for "payment in lieu of taxes." PILOT programs are common where federal agencies impose burdens on state and local authorities, and this study suggests that an appropriate PILOT right now just with Island County should be at least \$5.7 million per year. If compensation for victims of Growler noise is included, this amount should be closer to \$9 million per year. Inclusion of lost property value would raise the further. One priority for this compensation should be the Oak Harbor school district, which now must expand to accommodate federally connected students. Currently, federal agencies give Island County a PILOT of about \$2,000 per year, of which the Navy currently contributes \$155.

(3) Increase Local Contracting by the Navy

One way the Navy has sought to be a good neighbor with other jurisdictions is by increasing the level of local contracting. There is already some local contracting, as outlined in the 2013 report by the Island County EDC, but it can and should be expanded substantially. Every dollar that the Navy puts back into the Island County economy creates more income, wealth, and jobs. Moreover, it has the further benefit of diversifying the local economy, which supports the needed strategy of locally-owned import substitution (LOIS). By developing businesses that can thrive locally by supplying goods and services both to the Navy and the local civilian customers, economic planners can create a more robust local economy.

⁴⁹ Hope Hodge Seck, "Navy to Demo Swarming Drones at Sea in July," *Military.com Daily News*, 24 June 2016.

⁵⁰ Another "game changer" could be the "MAGIC CARPET" software, which will greatly reduce the burdens on and training requirements for Growler pilots. See, e.g., Meghann Myers, "Navy Fighters Are One Upgrade Away from Changing Carrier Aviation Forever," *Navy Times*, 3 July 2016.

(4) Reduce the Economic Cost of the Growler Program

This study suggests that the biggest external costs from the Naval Whidbey Air Station come not from Naval operations generally but from one program. The problem is obvious: *The Navy is training pilots to fly an exceptionally loud plane over a populated area and instead should do so over a less populated area.*

In the *DEIS* and elsewhere, the Navy has dismissed a variety of alternatives for its current training program. These include:

- Making technical modifications to the Growler engines to lower their noise (the Navy assessment is that this is technologically infeasible);
- Changing flight paths to reduce exposure to the population (the Navy claims this will lessen the value of the landing practices); or
- Moving the FCLP training program to a more appropriate nearby, less densely populated location (construction of an FCLP runway on one of several nearby training ranges is an alternative the Navy has not fully considered).

Ultimately, a key factor governing some of the Navy's positions is cost. By assuming public costs near zero, the Navy easily can dismiss *any* alternatives. With this study, state and local decision-makers now know this is untrue. It's their role to prevail upon the Navy to revisit and reweigh the very real costs to the community of the status quo against costs of the alternatives.

(5) Compensate Victims of the Growler Noise

Short of changing or moving the Growler program, public decision-makers also might seek to internalize some of these costs by asking the Navy to compensate financially residents who have experienced adverse health effects and diminished property values. Settlements between federal agencies creating noise and property owners adversely effected by the noise are common.⁵¹

While the analogy is imperfect, it's worth concluding by noting the disturbing similarity to the recent contamination of water systems in Flint, Michigan. There, public officials steadily dismissed complaints from thousands of residents about discolored and foul tasting water, until the facts became undeniable. Now, many of these same officials are being carted off to jail for dereliction of their duties. Here, thousands of residents under the flight paths of Navy Growler jets—in Island, San Juan, Skagit and Jefferson Counties—are complaining about toxic levels of noise that making healthy living, sleeping, and learning all but impossible. Public officials who ignore these complaints do so not only at the public's peril but at their own.

⁵¹ See, e.g., <http://www.nonoise.org/news/law.htm>.

Appendix I

The Case for LOIS Economic Development

A growing body of evidence suggests that the promising approach to economic development is to focus, laser-like, on locally owned, import-substituting (LOIS) businesses. Local ownership means that working control of a company is held within a small geographic area. Import-substituting means that the company is focused first and foremost (though not exclusively) on cost-effective production for local markets. While the vast majority of LOIS businesses are small, some actually grow to be quite large and powerful.

Numerous studies in recent years suggest that local ownership –the LO in LOIS—enables businesses to contribute more to economic development than do most global businesses attracted through expensive incentive schemes. Local ownership matters in at least five ways:⁵²

- *Higher Multipliers* – Locally owned businesses generally contribute more to the “economic multiplier.” More than two dozen studies over the past decade have compared the economic impacts of locally owned businesses with their nonlocal equivalents, and they consistently show that local businesses generate two to four times the multiplier benefits.⁵³ That means that every dollar that moves from a nonlocal to a local business in a community generates two to four times the income boost, two to four times the jobs, two to four times the local taxes, and two to four times the charitable contributions.
- *More Reliable* – While absentee-owned businesses increasingly consider moving to Mexico, China, or low-wage U.S. states, with only secondary concern for throwing the community into an economic tailspin, businesses anchored locally produce wealth more reliably for many years, often for many generations. This means that economic-development investments in local business have greater payoffs.
- *Higher Standards* – Because local businesses tend to stay put, a community with primarily local businesses can raise labor and environmental standards with confidence that its businesses will adapt rather than flee.

⁵² Extensive documentation of these points can be found in Michael H. Shuman, *The Small-Mart Revolution: How Local Businesses Are Beating the Global Competition* (San Francisco: Berrett-Koehler, 2006), Chapter 2.

⁵³ See, for example, Michael H. Shuman, *Local Dollars, Local Sense: How to Shift Your Money from Wall Street to Main Street and Achieve Real Prosperity* (White River Junction, VT: Chelsea Green, 2012), 17–25. Also see Stacy Mitchell, *The Big Box Swindle: The True Cost of Mega-Retailers and the Fight for America's Independent Businesses* (Boston: Beacon Press, 2006).

- *More Dynamic* – A community made up of smaller, locally owned businesses is better equipped to promote smart growth and walkable communities, draw tourists through unique stores and attractions, retain talented young people who seek entrepreneurial opportunities and a distinct sense of place, and reduce the noise, fumes, and risks of traffic.
- *Better Social Impacts* – Compared to economies dependent on absentee-owned enterprises, local-business economies tend to have more social stability, lower levels of welfare, and greater political participation.

The case for promoting local ownership has been deepened by empirical evidence that regions with higher densities of local business have superior economic performance. For example:

- A 2010 study appeared in the *Harvard Business Review* under the headline “More Small Firms Means More Jobs.”⁵⁴ The authors wrote, “Our research shows that regional economic growth is highly correlated with the presence of many small, entrepreneurial employers—not a few big ones.” The authors further argued that the major preoccupation of economic developers – how to attract global companies – is fundamentally wrong-headed. “Politicians enjoy announcing a big company’s arrival because people tend to think that will mean lots of job openings. But in a rapidly evolving economy, politicians are all too likely to guess wrong about which industries are worth attracting. What’s more, large corporations often generate little employment growth even if they are doing well.”
- Another study published shortly thereafter in the *Economic Development Quarterly*, a journal long supportive of business attraction practices, similarly finds: “Economic growth models that control for other relevant factors reveal a positive relationship between density of locally owned firms and per capita income growth, but only for small (10-99 employees) firms, whereas the density of large (more than 500 workers) firms not owned locally has a negative effect.”⁵⁵
- A paper published in 2013 by the Federal Reserve in Atlanta, which performed a regression analysis of counties across the United States, found statistically significant “evidence that local entrepreneurship matters for local economic performance . . . [T]he percent of employment provided by resident, or locally-owned, business establishments has a significant positive effect on

⁵⁴ Edward L. Glaeser and William R. Kerr, “The Secret to Job Growth: Think Small,” *Harvard Business Review*, July-August 2010.

⁵⁵ David A. Fleming and Stephan J. Goetz, “Does Local Firm Ownership Matter?,” *Economic Development Quarterly*, 2011.

county income and employment growth and a significant and negative effect on poverty....”⁵⁶

The second part of LOIS, the IS, stands for import substitution—the consumption of goods and services produced in close proximity to the producer. Every time a community imports a good or service that it might have cost-effectively produced for itself, it “leaks” dollars and loses the critically important multipliers associated with them. Moreover, import dependencies – on petroleum, for example –subject a community to risks of price hikes and disruptions far beyond local control. They also deny a community a diversified base of businesses and skills needed to take advantage of unknown (and unknowable) future opportunities in the global economy.

Three examples help to illustrate the potential benefits of import substitution:

- Twenty years ago, Güssing was a dying rural community of 4,000 in Austria.⁵⁷ Its old industries of logging and farming had been demolished by global competition. Many of today's economic developers would have given up and encouraged the residents to move elsewhere. But the mayor of Güssing decided that the key to prosperity was to plug energy "leaks." He built a small district heating system, fueled with local wood. The local money saved by importing less energy was then reinvested in expanding the district heating system and in new energy businesses. Since then, 50 new firms have opened, creating 1,000 new jobs. And most remarkably, the town estimates that this economic expansion actually will result in a *reduction* of its carbon footprint by 90 percent.
- In autumn of 2008 Marian Burros of the *New York Times* wrote a piece about how the 3000-person community of Hardwick, Vermont, prospered by creating a new "economic cluster" around local food.⁵⁸ Cutting-edge restaurants, artisan cheese makers, and organic orchardists were just some of the new businesses that had added an estimated 75-100 jobs to the area at a time when most rural communities were losing jobs. A new Vermont Food Venture Center also was put in place to continue the creation of local food enterprises.
- Even a single, visionary business can lead a community-wide effort at import substitution. Take Zingerman's in Ann Arbor, Michigan. On its first day of business in a college town known globally more for its radicalism than for its food, Zingerman's Deli sold about \$100 worth of sandwiches. That was 1982.

⁵⁶ Anil Rupesingha, “Locally Owned: Do Local Business Ownership and Size Matter for Local Economic Well-Being?,” monograph, August 2013.

⁵⁷ Jonathan Tirone, “‘Dead-End’ Austrian Town Blossoms with Green Energy,” *International Herald-Tribune*, 28 August 2007.

⁵⁸ Marian Burros, “Uniting Around Food to Save an Ailing Town,” *New York Times*, 7 October 2008.

It has since grown into a community of ten businesses, each independent but linked through overlapping partnerships that collectively employ 650 people and achieve annual sales of over \$50 million. Over that period the proprietors conscientiously built a food cluster from scratch. They carefully assessed the items going into the deli – bread, coffee, cheeses – and captured profitable opportunities for creating a bakery, a coffee roaster, and a creamery. They looked at the products being sold at the deli – fabulous coffee cakes and high-quality meats – and built new, value-adding businesses with these products, including a mail-order company and a restaurant called the Roadhouse.

These three case examples suggest the importance of a region looking past *existing* clusters of export-oriented business. A smarter approach is to create new clusters based, initially at least, on local demand.

Many economic developers believe that the only way an economy can grow is by exporting, because, the argument goes, this is the only way to bring new money into the economy. This in turn leads to a focus on larger, nonlocal, “trading sector” businesses. The argument is incorrect, however, because what matters is not exports per se but the local trade balance. Greater exports can improve the trade balance, but so can fewer imports.

As the great regional economist Jane Jacobs argued, import substitution is arguably more important than export-led development, because it facilitates long-term growth through diversification and long-term stability through self-reliance. Moreover, it tends to be easier to grow local businesses around local markets (which are well understood) than global markets (which are more unpredictable). Most importantly, Jacobs argued, it turns out that the best way of growing exporting businesses is to nurture them first through local markets, and then they naturally expand into regional, national, and global markets.

Implementation of LOIS requires creating a strong entrepreneurship ecosystem. Doing so requires answering key questions around six key concepts, each beginning with the letter P:

- *Planning* – How can significant dollar “leaks” caused by imports be identified, and which leaks can best be plugged with competitive LOIS enterprises?
- *People* – How can a new generation of LOIS entrepreneurs be nurtured and trained?
- *Partners* – How can existing LOIS businesses work together (through, for example, joint purchasing or marketing cooperatives) to improve their competitiveness?
- *Purse* – How can local savings, whether in banks or pension funds, be tapped to support new or expanded LOIS businesses?

- *Purchasing* – How can LOIS businesses achieve greater success through “Local First” purchasing by consumers, businesses, and government agencies?
- *Public Policymaking* – How can biases that currently exist against LOIS be eliminated so that local businesses can compete?

Appendix II
The Degree of Self-Reliance on Island County
(In IMPLAN's Private Enterprise Sectors)

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Farming, Ranching, and Forestry				
Oilseed farming	\$0	\$2,844,960	\$2,844,960	0%
Grain farming	\$1,889	\$3,865,571	\$3,867,461	0%
Vegetable and melon farming	\$905,192	\$4,781,724	\$5,686,916	16%
Fruit farming	\$132,560	\$16,148,628	\$16,281,188	1%
Tree nut farming	\$3,300	\$1,470,505	\$1,473,806	0%
Greenhouse, nursery, and floriculture production	\$143,923	\$3,501,023	\$3,644,946	4%
Tobacco farming	\$0	\$296	\$296	0%
Cotton farming	\$0	\$481,695	\$481,695	0%
Sugarcane and sugar beet farming	\$0	\$389,594	\$389,594	0%
All other crop farming	\$24,381	\$598,352	\$622,733	4%
Beef cattle ranching and farming, including feedlots	\$103,513	\$575,303	\$678,815	15%
Dairy cattle and milk production	\$35,590	\$1,453,691	\$1,489,280	2%
Poultry and egg production	\$12,977	\$2,429,840	\$2,442,817	1%
Animal production, except cattle and poultry and eggs	\$1,239,512	\$1,110,677	\$2,350,189	53%
Forestry, forest products, and timber tract production	\$4	\$123,128	\$123,132	0%
Commercial logging	\$0	\$488,373	\$488,373	0%
Commercial fishing	\$20,507	\$2,211,403	\$2,231,910	1%
Commercial hunting and trapping	\$0	\$382,430	\$382,430	0%
Support activities for agriculture and forestry	\$214,905	\$485,077	\$699,982	31%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Mining, Oil, and Gas				
Extraction of natural gas and crude petroleum	\$19,883	\$14,220,255	\$14,240,138	0%
Extraction of natural gas liquids	\$0	\$0	\$0	0%
Coal mining	\$0	\$999,005	\$999,005	0%
Iron ore mining	\$0	\$72,884	\$72,884	0%
Gold ore mining	\$0	\$509,837	\$509,837	0%
Silver ore mining	\$0	\$29,364	\$29,364	0%
Lead and zinc ore mining	\$0	\$160,547	\$160,547	0%
Copper ore mining	\$0	\$617,202	\$617,202	0%
Uranium-radium-vanadium ore mining	\$0	\$100,622	\$100,622	0%
Other metal ore mining	\$0	\$350,674	\$350,674	0%
Stone mining and quarrying	\$10,237	\$166,930	\$177,167	6%
Sand and gravel mining	\$137,684	\$206,610	\$344,294	40%
Other clay, ceramic, refractory minerals mining	\$0	\$50,718	\$50,718	0%
Potash, soda, and borate mineral mining	\$0	\$213,023	\$213,023	0%
Phosphate rock mining	\$0	\$195,443	\$195,443	0%
Other chemical and fertilizer mineral mining	\$0	\$76,872	\$76,872	0%
Other nonmetallic minerals	\$0	\$174,919	\$174,919	0%
Drilling oil and gas wells	\$1,064,087	\$14,267,825	\$15,331,912	7%
Support activities for oil and gas operations	\$15,757	\$4,224,235	\$4,239,991	0%
Metal mining services	\$15,050	\$241	\$15,291	98%
Other nonmetallic minerals services	\$0	\$201,215	\$201,215	0%

IMPLAN Sector	Current Spending	Additional Production	Total Demand		%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant	
Electric power generation - Hydroelectric	\$0	\$4,281,489	\$4,281,489		0%
Electric power generation - Fossil fuel	\$0	\$0	\$0		0%
Electric power generation - Nuclear	\$0	\$0	\$0		0%
Electric power generation - Solar	\$0	\$0	\$0		0%
Electric power generation - Wind	\$0	\$0	\$0		0%
Electric power generation - Geothermal	\$0	\$0	\$0		0%
Electric power generation - Biomass	\$0	\$0	\$0		0%
Electric power generation - All other	\$0	\$0	\$0		0%
Electric power transmission and distribution	\$6,861,505	\$71,119,092	\$77,980,597		9%
Natural gas distribution	\$0	\$12,167,153	\$12,167,153		0%
Water, sewage and other systems	\$6,859,501	\$484,111	\$7,343,612		93%

IMPLAN Sector	Current Spending	Additional Production	Total Demand		%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant	
Construction					
Construction of new health care structures	\$8,035,455	\$617,813	\$8,653,267		93%
Construction of new manufacturing structures	\$6,188,086	\$48,377	\$6,236,462		99%
Construction of new power and communication structures	\$14,908,030	\$92,823	\$15,000,853		99%
Construction of new educational and vocational structures	\$13,399,953	\$173,981	\$13,573,934		99%
Construction of new highways and streets	\$14,673,882	\$72,150	\$14,746,032		100%
Construction of new commercial structures, including farms	\$10,158,979	\$462,315	\$10,621,294		96%
Construction of other new nonresidential structures	\$33,776,241	\$1,395,208	\$35,171,450		96%
Construction of new single-family residential structures	25,387,175	4,557	\$25,391,732		100%
Construction of new multifamily residential structures	6,196,633	2,605	\$6,199,238		100%
Construction of other new residential structures	71,259,102	45,972	\$71,305,074		100%
Maintenance and repair construction of nonres. structures	7,116,305	15,302,826	\$22,419,130		32%
Maintenance and repair construction of res. structures	790,979	14,765,275	\$15,556,254		5%
Maintenance and repair construction of infrastructure	9,294,402	15,677,637	\$24,972,039		37%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Food, Beverages, and Tobacco)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Dog and cat food manufacturing	0	8,601,316	\$8,601,316	0%
Other animal food manufacturing	0	4,571,757	\$4,571,757	0%
Flour milling	283	1,959,230	\$1,959,513	0%
Rice milling	449	501,584	\$502,033	0%
Malt manufacturing	0	248,936	\$248,936	0%
Wet corn milling	0	1,727,689	\$1,727,689	0%
Soybean and other oilseed processing	0	3,673,733	\$3,673,733	0%
Fats and oils refining and blending	7	1,922,291	\$1,922,297	0%
Breakfast cereal manufacturing	602	3,176,922	\$3,177,525	0%
Beet sugar manufacturing	0	1,001,165	\$1,001,165	0%
Sugar cane mills and refining	0	1,247,940	\$1,247,940	0%
Nonchocolate confectionery manufacturing	1	2,517,522	\$2,517,522	0%
Chocolate and confectionery manufacturing from cacao bean	1,625	807,809	\$809,433	0%
Confectionery manufacturing from purchased chocolate	13	3,636,929	\$3,636,942	0%
Frozen fruits, juices and vegetables manufacturing	25	3,159,576	\$3,159,601	0%
Frozen specialties manufacturing	2,585	5,385,135	\$5,387,720	0%
Canned fruits and vegetables manufacturing	74	5,040,393	\$5,040,467	0%
Canned specialties	1,809	6,261,092	\$6,262,901	0%
Dehydrated food products manufacturing	145	890,551	\$890,697	0%
Fluid milk manufacturing	130,724	8,769,581	\$8,900,305	1%
Creamery butter manufacturing	36,631	615,919	\$652,549	6%
Cheese manufacturing	6,310	7,339,967	\$7,346,277	0%
Dry, condensed, and evaporated dairy product manufacturing	31,065	3,993,089	\$4,024,154	1%
Ice cream and frozen dessert manufacturing	36,657	1,765,736	\$1,802,392	2%
Animal, except poultry, slaughtering	1,355	13,043,548	\$13,044,904	0%
Meat processed from carcasses	1,794	15,230,699	\$15,232,493	0%
Rendering and meat byproduct processing	7	899,427	\$899,434	0%
Poultry processing	9	13,432,893	\$13,432,902	0%
Seafood product preparation and packaging	19	3,149,973	\$3,149,992	0%
Bread and bakery product, except frozen, manufacturing	133,105	13,311,262	\$13,444,367	1%
Frozen cakes and other pastries manufacturing	2,681	1,199,723	\$1,202,404	0%
Cookie and cracker manufacturing	3,225	3,270,984	\$3,274,209	0%
Dry pasta, mixes, and dough manufacturing	1,433	3,343,659	\$3,345,091	0%
Tortilla manufacturing	111	950,688	\$950,799	0%
Roasted nuts and peanut butter manufacturing	195	2,286,601	\$2,286,796	0%
Other snack food manufacturing	1,436	7,727,701	\$7,729,137	0%
Coffee and tea manufacturing	108,432	3,326,634	\$3,435,065	3%
Flavoring syrup and concentrate manufacturing	215	1,539,051	\$1,539,266	0%
Mayonnaise, dressing, and sauce manufacturing	279	2,068,032	\$2,068,310	0%
Spice and extract manufacturing	286	2,973,300	\$2,973,587	0%
All other food manufacturing	14,449	6,719,673	\$6,734,122	0%
Bottled and canned soft drinks & water	47,648	17,969,794	\$18,017,442	0%
Manufactured ice	0	338,485	\$338,485	0%
Breweries	0	10,335,949	\$10,335,949	0%
Wineries	62,704	5,142,380	\$5,205,084	1%
Distilleries	953	4,473,320	\$4,474,273	0%
Tobacco product manufacturing	0	12,237,155	\$12,237,155	0%

IMPLAN Sector Manufacturing (Fibers, Textiles, and Clothing)	Current Spending	Additional Production	Total Demand		%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant	
Fiber, yarn, and thread mills	7,586	676,036	\$683,622		1%
Broadwoven fabric mills	5,035	838,620	\$843,655		1%
Narrow fabric mills and shirt machine embroidery	0	202,314	\$202,314		0%
Nonwoven fabric mills	1,757	511,754	\$513,511		0%
Knit fabric mills	46	124,696	\$124,742		0%
Textile and fabric finishing mills	70	1,333,446	\$1,333,516		0%
Fabric coating mills	167	254,314	\$254,481		0%
Carpet and rug mills	2,058	3,437,346	\$3,439,404		0%
Curtain and linen mills	1,628	4,489,059	\$4,490,687		0%
Textile bag and canvas mills	1,052	1,475,025	\$1,476,077		0%
Rope, cordage, twine, tire cord and tire fabric mills	269	1,224,592	\$1,224,861		0%
Other textile product mills	3,152	1,784,675	\$1,787,826		0%
Hosiery and sock mills	0	1,121,200	\$1,121,200		0%
Other apparel knitting mills	6	0	\$6		100%
Cut and sew apparel contractors	0	821,397	\$821,397		0%
Mens and boys cut and sew apparel manufacturing	102	6,967,969	\$6,968,071		0%
Womens and girls cut and sew apparel manufacturing	16	12,843,561	\$12,843,577		0%
Other cut and sew apparel manufacturing	0	1,255,611	\$1,255,611		0%
Apparel accessories and other apparel manufacturing	56	2,246,205	\$2,246,261		0%
Leather and hide tanning and finishing	3	176,111	\$176,113		0%
Footwear manufacturing	972	5,140,387	\$5,141,359		0%
Other leather and allied product manufacturing	71	3,578,316	\$3,578,387		0%

IMPLAN Sector Manufacturing (Wood and Wood Products)	Current Spending	Additional Production	Total Demand		%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant	
Sawmills	0	3,544,511	\$3,544,511		0%
Wood preservation	0	675,248	\$675,248		0%
Veneer and plywood manufacturing	0	1,578,562	\$1,578,562		0%
Engineered wood member and truss manufacturing	227	1,071,322	\$1,071,549		0%
Reconstituted wood product manufacturing	83	1,203,203	\$1,203,286		0%
Wood windows and door manufacturing	2	2,235,190	\$2,235,191		0%
Cut stock, resawing lumber, and planing	0	302,637	\$302,637		0%
Other millwork, including flooring	0	1,867,941	\$1,867,941		0%
Wood container and pallet manufacturing	0	1,527,662	\$1,527,662		0%
Manufactured home (mobile home) manufacturing	7,233	675,115	\$682,347		1%
Prefabricated wood building manufacturing	43,375	38,342	\$81,717		53%
All other miscellaneous wood product manufacturing	12	1,274,779	\$1,274,791		0%

IMPLAN Sector Manufacturing (Paper, Paper Products, and Printing)	Current Spending	Additional Production	Total Demand		%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant	
Pulp mills	0	437,498	\$437,498		0%
Paper mills	6	9,890,651	\$9,890,657		0%
Paperboard mills	0	4,301,183	\$4,301,183		0%
Paperboard container manufacturing	5	6,561,021	\$6,561,026		0%
Paper bag and coated and treated paper manufacturing	471	3,121,350	\$3,121,821		0%
Stationery product manufacturing	360,134	729,427	\$1,089,561		33%
Sanitary paper product manufacturing	0	3,308,152	\$3,308,152		0%
All other converted paper product manufacturing	47	729,585	\$729,632		0%
Printing	72,562	8,310,729	\$8,383,291		1%
Support activities for printing	657	296,240	\$296,897		0%

IMPLAN Sector	Current Spending		Additional Production		Total Demand		%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant			
Manufacturing (Petroleum-based Products)							
Petroleum refineries	316,234	157,056,312	\$157,372,547	0%			
Asphalt paving mixture and block manufacturing	8,936	2,533,578	\$2,542,515	0%			
Asphalt shingle and coating materials manufacturing	92	2,277,115	\$2,277,207	0%			
Petroleum lubricating oil and grease manufacturing	5,219	3,121,366	\$3,126,585	0%			
All other petroleum and coal products manufacturing	666	886,606	\$887,272	0%			
Petrochemical manufacturing	2,005	8,680,355	\$8,682,360	0%			
Industrial gas manufacturing	11	1,442,716	\$1,442,726	0%			
Synthetic dye and pigment manufacturing	32	730,880	\$730,912	0%			
Other basic inorganic chemical manufacturing	998	3,965,794	\$3,966,792	0%			
Other basic organic chemical manufacturing	43	7,208,679	\$7,208,722	0%			
Plastics material and resin manufacturing	44	2,855,433	\$2,855,477	0%			
Synthetic rubber manufacturing	98	614,304	\$614,401	0%			
Artificial and synthetic fibers and filaments manufacturing	0	3,863,583	\$3,863,583	0%			
Nitrogenous fertilizer manufacturing	0	2,366,662	\$2,366,662	0%			
Phosphatic fertilizer manufacturing	74	2,302,902	\$2,302,976	0%			
Fertilizer mixing	5	0	\$5	100%			
Pesticide and other agricultural chemical manufacturing	0	2,847,492	\$2,847,492	0%			
Medicinal and botanical manufacturing	18	206,787	\$206,805	0%			
Pharmaceutical preparation manufacturing	1,051	80,892,152	\$80,893,204	0%			
In-vitro diagnostic substance manufacturing	0	102,599	\$102,599	0%			
Biological product (except diagnostic) manufacturing	54	1,478,831	\$1,478,885	0%			
Paint and coating manufacturing	0	3,206,412	\$3,206,412	0%			
Adhesive manufacturing	0	1,610,061	\$1,610,061	0%			
Soap and other detergent manufacturing	39,372	5,455,228	\$5,494,600	1%			
Polish and other sanitation good manufacturing	4,609	3,750,259	\$3,754,868	0%			
Surface active agent manufacturing	191	1,133,024	\$1,133,215	0%			
Toilet preparation manufacturing	1,166	11,499,736	\$11,500,902	0%			
Printing ink manufacturing	0	583,939	\$583,939	0%			
Explosives manufacturing	0	261,709	\$261,709	0%			
Custom compounding of purchased resins	22	1,390,086	\$1,390,108	0%			
Photographic film and chemical manufacturing	0	1,377,093	\$1,377,093	0%			
Other miscellaneous chemical product manufacturing	2,891	3,325,185	\$3,328,076	0%			
Plastics packaging materials and unlaminated film and sheet	7	4,265,268	\$4,265,275	0%			
Unlaminated plastics profile shape manufacturing	11	972,365	\$972,376	0%			
Plastics pipe and pipe fitting manufacturing	5	1,956,104	\$1,956,109	0%			
Laminated plastics plate, sheet (except packaging), and shape	5	365,671	\$365,676	0%			
Polystyrene foam product manufacturing	435	1,467,351	\$1,467,786	0%			
Urethane and other foam product (except polystyrene)	236	1,470,545	\$1,470,780	0%			
Plastics bottle manufacturing	2	1,006,953	\$1,006,955	0%			
Other plastics product manufacturing	87	15,557,064	\$15,557,151	0%			

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Rubber, Glass, Stone, and Concrete)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Tire manufacturing	0	6,477,172	\$6,477,172	0%
Rubber and plastics hoses and belting manufacturing	2	540,802	\$540,804	0%
Other rubber product manufacturing	121	3,221,105	\$3,221,226	0%
Potttery, ceramics, and plumbing fixture manufacturing	477	889,315	\$889,793	0%
Brick, tile, and other structural clay product manufacturing	0	1,321,764	\$1,321,764	0%
Flat glass manufacturing	0	201,870	\$201,870	0%
Other pressed and blown glass and glassware manufacturing	456	1,193,030	\$1,193,486	0%
Glass container manufacturing	0	1,013,150	\$1,013,150	0%
Glass product manufacturing made of purchased glass	159	730,119	\$730,277	0%
Cement manufacturing	0	957,847	\$957,847	0%
Ready-mix concrete manufacturing	8	3,256,487	\$3,256,495	0%
Concrete block and brick manufacturing	3	906,072	\$906,075	0%
Concrete pipe manufacturing	9	328,613	\$328,622	0%
Other concrete product manufacturing	105	1,832,725	\$1,832,830	0%
Lime manufacturing	118	212,891	\$213,009	0%
Gypsum product manufacturing	0	1,244,003	\$1,244,003	0%
Abrasive product manufacturing	414	547,795	\$548,209	0%
Cut stone and stone product manufacturing	43,207	1,717,256	\$1,760,463	2%
Ground or treated mineral and earth manufacturing	112	400,107	\$400,219	0%
Mineral wool manufacturing	0	1,376,076	\$1,376,076	0%
Miscellaneous nonmetallic mineral products manufacturing	10	591,572	\$591,582	0%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Metals)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Iron and steel mills and ferroalloy manufacturing	0	14,596,526	\$14,596,526	0%
Iron, steel pipe and tube manufacturing from purchased steel	4	0	\$4	100%
Rolled steel shape manufacturing	0	0	\$0	#DIV/0!
Steel wire drawing	3	575,869	\$575,872	0%
Alumina refining and primary aluminum production	16	2,963,006	\$2,963,022	0%
Secondary smelting and alloying of aluminum	0	0	\$0	#DIV/0!
Aluminum sheet, plate, and foil manufacturing	31	1,753,127	\$1,753,158	0%
Other aluminum rolling, drawing and extruding	7	250,625	\$250,632	0%
Nonferrous metal (exc aluminum) smelting and refining	0	2,081,086	\$2,081,086	0%
Copper rolling, drawing, extruding and alloying	0	2,031,608	\$2,031,608	0%
Nonferrous metal, except copper and aluminum, shaping	1	2,721,091	\$2,721,091	0%
Secondary processing of other nonferrous metals	3	1,100,652	\$1,100,655	0%
Ferrous metal foundries	0	805,983	\$805,983	0%
Nonferrous metal foundries	3	653,264	\$653,267	0%
Iron and steel forging	26	1,070,321	\$1,070,347	0%
Nonferrous forging	245	229,113	\$229,359	0%
Custom roll forming	1	153,732	\$153,733	0%

IMPLAN Sector Manufacturing (Metal Products)	Current Spending	Additional Production	Total Demand	%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Crown and closure manufacturing and metal stamping	8	1,342,751	\$1,342,760	0%
Cutlery, utensil, pot, and pan manufacturing	4	2,080,857	\$2,080,861	0%
Handtool manufacturing	0	2,615,288	\$2,615,288	0%
Prefabricated metal buildings and components manufacturing	2,743	1,139,872	\$1,142,615	0%
Fabricated structural metal manufacturing	10	3,765,549	\$3,765,559	0%
Plate work manufacturing	7	1,036,060	\$1,036,067	0%
Metal window and door manufacturing	28	2,333,427	\$2,333,455	0%
Sheet metal work manufacturing	28	2,992,376	\$2,992,404	0%
Ornamental and architectural metal work manufacturing	186	1,381,848	\$1,382,034	0%
Power boiler and heat exchanger manufacturing	3	1,061,215	\$1,061,218	0%
Metal tank (heavy gauge) manufacturing	1	1,576,922	\$1,576,923	0%
Metal cans manufacturing	75	1,430,733	\$1,430,809	0%
Metal barrels, drums and pails manufacturing	1	309,662	\$309,663	0%
Hardware manufacturing	1,470	2,694,026	\$2,695,497	0%
Spring and wire product manufacturing	18	2,660,254	\$2,660,271	0%
Machine shops	1,333	4,242,391	\$4,243,724	0%
Tuned product and screw, nut, and bolt manufacturing	12	1,906,782	\$1,906,794	0%
Metal heat treating	3	562,717	\$562,721	0%
Metal coating and nonprecious engraving	17	1,193,857	\$1,193,873	0%
Electroplating, anodizing, and coloring metal	0	826,324	\$826,324	0%
Valve and fittings, other than plumbing, manufacturing	111	6,768,672	\$6,768,784	0%
Plumbing fixture fitting and trim manufacturing	2	1,288,971	\$1,288,973	0%
Ball and roller bearing manufacturing	0	1,464,055	\$1,464,055	0%
Small arms ammunition manufacturing	0	3,048,246	\$3,048,247	0%
Ammunition, except for small arms, manufacturing	21	3,441,631	\$3,441,652	0%
Small arms, ordnance, and accessories manufacturing	102	5,158,425	\$5,158,527	0%
Fabricated pipe and pipe fitting manufacturing	0	1,774,297	\$1,774,297	0%
Other fabricated metal manufacturing	2	3,414,527	\$3,414,529	0%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Machinery and Equipment)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Farm machinery and equipment manufacturing	23,820	5,402,775	\$5,426,595	0%
Lawn and garden equipment manufacturing	14,873	1,436,288	\$1,451,161	1%
Construction machinery manufacturing	6,386	6,714,371	\$6,720,757	0%
Mining machinery and equipment manufacturing	130	319,735	\$319,865	0%
Oil and gas field machinery and equipment manufacturing	4	3,649,619	\$3,649,623	0%
Food product machinery manufacturing	0	624,228	\$624,228	0%
Semiconductor machinery manufacturing	0	1,383,961	\$1,383,961	0%
Sawmill, woodworking, and paper machinery	0	206,310	\$206,310	0%
Printing machinery and equipment manufacturing	5	338,184	\$338,189	0%
All other industrial machinery manufacturing	2	2,430,982	\$2,430,984	0%
Optical instrument and lens manufacturing	69	1,947,806	\$1,947,875	0%
Photographic and photocopying equipment manufacturing	30	475,966	\$475,996	0%
Other commercial service industry machinery manufacturing	5	2,971,182	\$2,971,187	0%
Air purification and ventilation equipment manufacturing	0	1,307,252	\$1,307,252	0%
Heating equipment (except warm air furnaces) manufacturing	0	990,577	\$990,577	0%
Air conditioning, refrigeration, and warm air heating equipment	1	5,977,414	\$5,977,415	0%
Industrial mold manufacturing	11,548	1,135,764	\$1,147,312	1%
Special tool, die, jig, and fixture manufacturing	131	1,772,658	\$1,772,789	0%
Cutting tool and machine tool accessory manufacturing	1	546,228	\$546,229	0%
Machine tool manufacturing	4	1,638,727	\$1,638,732	0%
Rolling mill and other metalworking machinery manufacturing	4	273,868	\$273,872	0%
Turbine and turbine generator set units manufacturing	0	1,339,288	\$1,339,288	0%
Speed changer, industrial high-speed drive, and gears	0	389,471	\$389,471	0%
Mechanical power transmission equipment manufacturing	0	783,721	\$783,721	0%
Other engine equipment manufacturing	34	3,521,462	\$3,521,496	0%
Pump and pumping equipment manufacturing	0	2,729,931	\$2,729,931	0%
Air and gas compressor manufacturing	0	1,402,597	\$1,402,597	0%
Measuring and dispensing pump manufacturing	2	133,276	\$133,278	0%
Elevator and moving stairway manufacturing	0	496,733	\$496,733	0%
Conveyor and conveying equipment manufacturing	47	1,182,860	\$1,182,907	0%
Overhead cranes, hoists, and monorail systems manufacturing	159	943,340	\$943,499	0%
Industrial truck, trailer, and stacker manufacturing	16	1,395,446	\$1,395,463	0%
Power-driven handtool manufacturing	111	1,064,864	\$1,064,974	0%
Welding and soldering equipment manufacturing	37	649,520	\$649,557	0%
Packaging machinery manufacturing	2	1,330,382	\$1,330,384	0%
Industrial process furnace and oven manufacturing	0	326,825	\$326,825	0%
Fluid power cylinder and actuator manufacturing	124	1,251,156	\$1,251,281	0%
Fluid power pump and motor manufacturing	8	1,630,113	\$1,630,122	0%
Scales, balances, and misc. general purpose machinery	4	2,234,669	\$2,234,672	0%

IMPLAN Sector	Current Spending		Total Demand		% Self-Reliant
	On Local Production	for Self-Reliance	For Local Production	for Self-Reliance	
Manufacturing (Computers, Electronics, and Appliances)					
Electronic computer manufacturing	0	25,734,868	\$25,734,868		0%
Computer storage device manufacturing	0	2,970,006	\$2,970,006		0%
Computer terminals and other computer peripheral equipment	0	4,935,454	\$4,935,454		0%
Telephone apparatus manufacturing	0	3,420,393	\$3,420,393		0%
Broadcast and wireless communications equipment	2,648	34,962,785	\$34,965,433		0%
Other communications equipment manufacturing	6	962,822	\$962,828		0%
Audio and video equipment manufacturing	0	9,564,302	\$9,564,302		0%
Bare printed circuit board manufacturing	0	1,016,812	\$1,016,812		0%
Semiconductor and related device manufacturing	157	33,642,570	\$33,642,728		0%
Capacitor, resistor, coil, transformer, and other inductors	57	1,133,284	\$1,133,341		0%
Electronic connector manufacturing	3	1,065,483	\$1,065,486		0%
Printed circuit assembly (electronic assembly) manufacturing	927	6,104,433	\$6,105,360		0%
Other electronic component manufacturing	58	5,662,819	\$5,662,877		0%
Electromedical and electrotherapeutic apparatus	3	5,285,020	\$5,285,023		0%
Search, detection, and navigation instruments manufacturing	6,402	65,484,893	\$65,491,295		0%
Automatic environmental control manufacturing	1	917,964	\$917,965		0%
Industrial process variable instruments manufacturing	15	1,632,483	\$1,632,498		0%
Totalizing fluid meter and counting device manufacturing	1,218	740,506	\$741,724		0%
Electricity and signal testing instruments manufacturing	0	4,144,844	\$4,144,844		0%
Analytical laboratory instrument manufacturing	0	1,775,716	\$1,775,716		0%
Irradiation apparatus manufacturing	0	1,469,367	\$1,469,367		0%
Watch, clock, and other measuring and controlling devices	116	4,080,912	\$4,081,028		0%
Blank magnetic and optical recording media manufacturing	0	588,848	\$588,848		0%
Software and other prerecorded and record reproducing	0	420,613	\$420,613		0%
Electric lamp bulb and part manufacturing	0	682,279	\$682,279		0%
Lighting fixture manufacturing	0	3,846,299	\$3,846,299		0%
Small electrical appliance manufacturing	4	3,199,851	\$3,199,855		0%
Household cooking appliance manufacturing	0	2,445,413	\$2,445,413		0%
Household refrigerator and home freezer manufacturing	0	2,534,310	\$2,534,310		0%
Household laundry equipment manufacturing	0	2,191,235	\$2,191,235		0%
Other major household appliance manufacturing	0	1,386,782	\$1,386,782		0%
Power, distribution, and specialty transformer manufacturing	11	1,629,284	\$1,629,295		0%
Motor and generator manufacturing	22	2,343,892	\$2,343,914		0%
Switchgear and switchboard apparatus manufacturing	10	3,778,753	\$3,778,764		0%
Relay and industrial control manufacturing	888	2,113,882	\$2,114,770		0%
Storage battery manufacturing	0	1,193,958	\$1,193,958		0%
Primary battery manufacturing	0	1,259,455	\$1,259,455		0%
Fiber optic cable manufacturing	15	588,186	\$588,201		0%
Other communication and energy wire manufacturing	1	2,516,328	\$2,516,329		0%
Wiring device manufacturing	48	4,127,569	\$4,127,617		0%
Carbon and graphite product manufacturing	0	569,568	\$569,568		0%
All other miscellaneous electrical equipment and components	52,546	2,597,081	\$2,649,626		2%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Vehicles, Boats, and Planes)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Automobile manufacturing	0	47,372,192	\$47,372,192	0%
Light truck and utility vehicle manufacturing	0	46,053,099	\$46,053,099	0%
Heavy duty truck manufacturing	0	5,847,205	\$5,847,205	0%
Motor vehicle body manufacturing	0	437,232	\$437,232	0%
Truck trailer manufacturing	0	1,697,154	\$1,697,154	0%
Motor home manufacturing	0	1,669,767	\$1,669,767	0%
Travel trailer and camper manufacturing	0	2,214,475	\$2,214,475	0%
Motor vehicle gasoline engine and engine parts	0	3,169,434	\$3,169,434	0%
Motor vehicle electrical and electronic equipment	11	7,754,639	\$7,754,650	0%
Motor vehicle steering, suspension, and brake systems	0	3,451,146	\$3,451,146	0%
Motor vehicle transmission and power train parts	8	5,743,750	\$5,743,758	0%
Motor vehicle seating and interior trim manufacturing	0	1,266,208	\$1,266,208	0%
Motor vehicle metal stamping	19	389,364	\$389,383	0%
Other motor vehicle parts manufacturing	0	10,470,951	\$10,470,951	0%
Aircraft manufacturing	10,694,821	77,768,002	\$88,462,824	12%
Aircraft engine and engine parts manufacturing	3,374	35,012,354	\$35,015,728	0%
Other aircraft parts and auxiliary equipment manufacturing	20,976	35,021,289	\$35,042,265	0%
Guided missile and space vehicle manufacturing	98,374	14,318,073	\$14,416,447	1%
Propulsion units and parts for space vehicles and missiles	43,589	3,115,258	\$3,158,848	1%
Railroad rolling stock manufacturing	0	2,173,258	\$2,173,258	0%
Ship building and repairing	16,264,131	12,669,277	\$28,933,408	56%
Boat building	106,665	2,733,031	\$2,839,696	4%
Motorcycle, bicycle, and parts manufacturing	4	2,449,190	\$2,449,194	0%
Military armored vehicle, tank, and tank component	1,045	3,843,404	\$3,844,449	0%
All other transportation equipment manufacturing	883	2,889,034	\$2,889,917	0%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Furniture)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Wood kitchen cabinet and countertop manufacturing	98	3,527,809	\$3,527,907	0%
Upholstered household furniture manufacturing	540	3,595,124	\$3,595,663	0%
Nonupholstered wood household furniture manufacturing	4,582	4,423,197	\$4,427,780	0%
Other household nonupholstered furniture manufacturing	1,531	1,666,610	\$1,668,141	0%
Institutional furniture manufacturing	1,164	983,546	\$984,710	0%
Wood office furniture manufacturing	116	651,203	\$651,320	0%
Custom architectural woodwork and millwork	242	583,724	\$583,966	0%
Office furniture, except wood, manufacturing	2,539	1,525,636	\$1,528,176	0%
Showcase, partition, shelving, and locker manufacturing	2,984	2,092,618	\$2,095,602	0%
Mattress manufacturing	58	2,424,010	\$2,424,068	0%
Blind and shade manufacturing	2,851	688,771	\$691,622	0%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Health Equipment)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Surgical and medical instrument manufacturing	89	4,964,976	\$4,965,065	0%
Surgical appliance and supplies manufacturing	3,886	7,793,187	\$7,797,073	0%
Dental equipment and supplies manufacturing	5	1,092,354	\$1,092,358	0%
Ophthalmic goods manufacturing	6	2,254,934	\$2,254,939	0%
Dental laboratories	0	943,416	\$943,416	0%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (All Other Manufacturing)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Jewelry and silverware manufacturing	0	5,093,974	\$5,093,974	0%
Sporting and athletic goods manufacturing	31,950	5,830,281	\$5,862,231	1%
Doll, toy, and game manufacturing	1	6,494,375	\$6,494,376	0%
Office supplies (except paper) manufacturing	24	1,068,922	\$1,068,946	0%
Sign manufacturing	6,857	1,173,056	\$1,179,913	1%
Gasket, packing, and sealing device manufacturing	14	1,160,539	\$1,160,553	0%
Musical instrument manufacturing	0	426,446	\$426,446	0%
Fasteners, buttons, needles, and pins manufacturing	27	392,409	\$392,436	0%
Broom, brush, and mop manufacturing	22	787,457	\$787,479	0%
Burial casket manufacturing	0	148,069	\$148,069	0%
All other miscellaneous manufacturing	3,449	3,693,746	\$3,697,195	0%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Wholesale Trade)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Wholesale trade	36,854,338	199,436,012	\$236,290,350	16%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Retail Trade)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Retail - Motor vehicle and parts dealers	13,058,948	27,452,293	\$40,511,240	32%
Retail - Furniture and home furnishings stores	6,940,418	5,082,965	\$12,023,383	58%
Retail - Electronics and appliance stores	3,714,136	3,432,538	\$7,146,674	52%
Retail - Building material and garden equipment and supplies	26,908,293	52,883	\$26,961,177	100%
Retail - Food and beverage stores	43,072,787	6,810,270	\$49,883,057	86%
Retail - Health and personal care stores	15,051,250	2,378,494	\$17,429,744	86%
Retail - Gasoline stores	5,720,922	7,978,727	\$13,699,649	42%
Retail - Clothing and clothing accessories stores	4,977,392	16,033,172	\$21,010,564	24%
Retail - Sporting goods, hobby, musical instrument and books	4,753,388	3,064,838	\$7,818,226	61%
Retail - General merchandise stores	21,539,969	30,473,339	\$52,013,308	41%
Retail - Miscellaneous store retailers	9,850,878	64,024	\$9,914,902	99%
Retail - Nonstore retailers	25,428,067	156,294	\$25,584,362	99%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Transportation)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Air transportation	983,157	53,672,633	\$54,655,790	2%
Rail transportation	719,049	5,413,279	\$6,132,327	12%
Water transportation	401,952	6,462,560	\$6,864,511	6%
Truck transportation	10,564,149	42,566,493	\$53,130,643	20%
Transit and ground passenger transportation	2,763,549	87,092	\$2,850,642	97%
Pipeline transportation	0	1,934,396	\$1,934,396	0%
Scenic and sightseeing transportation and support activities	2,378,876	245,824	\$2,624,700	91%
Couriers and messengers	99,611	6,390,564	\$6,490,175	2%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Manufacturing (Warehousing and Storage)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Warehousing and storage	89,760	10,583,778	\$10,673,537	1%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Services (Information Businesses)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Newspaper publishers	17,341	1,889,159	\$1,906,500	1%
Periodical publishers	336,715	3,911,512	\$4,248,227	8%
Book publishers	27,632	8,342,082	\$8,369,714	0%
Directory, mailing list, and other publishers	54,249	5,414,554	\$5,468,804	1%
Greeting card publishing	915	430,877	\$431,791	0%
Software publishers	320,088	32,808,974	\$33,129,062	1%
Motion picture and video industries	1,677,596	25,812,744	\$27,490,340	6%
Sound recording industries	1,001,006	2,209,317	\$3,210,323	31%
Radio and television broadcasting	117,962	2,000,741	\$2,118,703	6%
Cable and other subscription programming	2,859,856	2,720,354	\$5,580,210	51%
Wired telecommunications carriers	41,051,896	24,724,258	\$65,776,155	62%
Wireless telecommunications carriers (except satellite)	287,426	73,372,153	\$73,659,579	0%
Satellite, telecommunications resellers, and other telecomm.	389,917	2,185,351	\$2,575,268	15%
Data processing, hosting, and related services	4,606,817	48,679,290	\$53,286,107	9%
News syndicates, libraries, archives and other information	148,048	11,424,997	\$11,573,045	1%
Internet publishing and broadcasting and web search portals	716,188	6,516,919	\$7,233,107	10%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Services (Banking and Finance)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Monetary authorities and depository credit intermediation	19,373,862	64,647,694	\$84,021,556	23%
Nondepository credit intermediation and related activities	1,335,367	24,599,278	\$25,934,644	5%
Securities and commodity contracts intermediation and brokers	5,029,373	10,360,525	\$15,389,899	33%
Other financial investment activities	19,462,115	41,685,607	\$61,147,722	32%
Insurance carriers	5,641,742	106,788,467	\$112,430,208	5%
Insurance agencies, brokerages, and related activities	1,208	23,050,559	\$23,051,767	0%
Funds, trusts, and other financial vehicles	7,295,986	32,003,627	\$39,299,613	19%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Services (Real Estate and Leasing)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Real estate	92,533,385	75,412,008	\$167,945,393	55%
Owner-occupied dwellings	376,712,061	0	\$376,712,061	100%
Automotive equipment rental and leasing	1,434,393	17,398,241	\$18,832,634	8%
General and consumer goods rental except video tapes	1,087,922	3,734,747	\$4,822,669	23%
Video tape and disc rental	906,293	98,357	\$1,004,650	90%
Commercial and industrial machinery and equipment rental	683,314	146,689	\$830,003	82%
Lessors of nonfinancial intangible assets	0	930,523	\$930,523	0%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Services (Professional Services)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Legal services	11,249,042	34,962,892	\$46,211,934	24%
Accounting, tax preparation, bookkeeping, and payroll services	8,063,322	11,247,310	\$19,310,632	42%
Architectural, engineering, and related services	18,639,788	93,446,411	\$112,086,199	17%
Specialized design services	1,746,765	269,888	\$2,016,652	87%
Custom computer programming services	20,510,892	57,460,402	\$77,971,295	26%
Computer systems design services	7,080,665	50,192,381	\$57,273,045	12%
Other computer related services, including facilities man.	1,976,049	7,206,089	\$9,182,138	22%
Management consulting services	10,547,810	15,485,738	\$26,033,548	41%
Environmental and other technical consulting services	705,323	226,684	\$932,007	76%
Scientific research and development services	70,654,479	221,481,943	\$292,136,422	24%
Advertising, public relations, and related services	729,309	39,064,805	\$39,794,113	2%
Photographic services	0	2,955,812	\$2,955,812	0%
Veterinary services	7,955,285	925,092	\$8,880,378	90%
Marketing research and other miscellaneous professional servs	3,807,839	3,607,541	\$7,415,380	51%
Management of companies and enterprises	0	39,949,617	\$39,949,617	0%
Office administrative services	882,627	16,104,036	\$16,986,663	5%
Facilities support services	7,560,656	93,677	\$7,654,332	99%
Employment services	513,501	30,504,517	\$31,018,018	2%
Business support services	4,084,955	2,617,888	\$6,702,843	61%
Travel arrangement and reservation services	1,486,139	11,241,956	\$12,728,095	12%
Investigation and security services	1,136,977	6,651,659	\$7,788,636	15%
Services to buildings	2,116,260	5,008,244	\$7,124,504	30%
Landscape and horticultural services	4,149,998	239,819	\$4,389,817	95%
Other support services	824,357	6,241,027	\$7,065,384	12%
Waste management and remediation services	5,164,789	5,311,845	\$10,476,633	49%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Services (Private Education)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Elementary and secondary schools	4,839,900	10,768,039	\$15,607,939	31%
Junior colleges, colleges, universities, and prof. schools	9,975,217	37,629,509	\$47,604,727	21%
Other educational services	9,033,936	5,943,622	\$14,977,558	60%

IMPLAN Sector	Current Spending	Additional Production	Total Demand	%
Services (Health and Human Services)	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Offices of physicians	\$27,353,138	\$85,587,722	\$112,940,860	24%
Offices of dentists	\$21,375,723	\$13,818,551	\$35,194,274	61%
Offices of other health practitioners	\$22,762,316	\$7,710,070	\$30,472,385	75%
Outpatient care centers	\$12,178,065	\$26,097,883	\$38,275,949	32%
Medical and diagnostic laboratories	\$0	\$8,011,294	\$8,011,294	0%
Home health care services	\$3,983,873	\$19,147,913	\$23,131,786	17%
Other ambulatory health care services	\$2,559,224	\$4,340,463	\$6,899,687	37%
Hospitals	\$942,338	\$230,037,883	\$230,980,222	0%
Nursing and community care facilities	\$23,958,322	\$23,019,404	\$46,977,725	51%
Residential mental retardation, mental health, substance abuse	\$0	\$9,787,896	\$9,787,896	0%
Individual and family services	\$17,922,228	\$4,917,740	\$22,839,968	78%
Community food, housing, and other relief services	\$12,186,245	\$246,304	\$12,432,549	98%
Child day care services	\$3,265,639	\$1,031,384	\$4,297,023	76%

IMPLAN Sector Services (Entertainment, Tourism, and Food Service)	Current Spending	Additional Production	Total Demand	%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Performing arts companies	\$4,605,549	\$4,153,775	\$8,759,324	53%
Commercial Sports Except Racing	\$44,827	\$5,367,397	\$5,412,223	1%
Racing and Track Operation	\$0	\$475,429	\$475,429	0%
Promoters of performing arts and sports and agents	\$1,371,544	\$4,080,668	\$5,452,213	25%
Independent artists, writers, and performers	\$3,768,840	\$37,846	\$3,806,686	99%
Museums, historical sites, zoos, and parks	\$1,361,691	\$2,349,871	\$3,711,562	37%
Amusement parks and arcades	\$0	\$2,568,961	\$2,568,961	0%
Gambling industries (except casino hotels)	\$6,001,535	\$13,957,777	\$19,959,312	30%
Other amusement and recreation industries	\$10,249,153	\$75,054	\$10,324,208	99%
Fitness and recreational sports centers	\$5,208,308	\$1,707,042	\$6,915,350	75%
Bowling centers	\$786,407	\$168,625	\$955,032	82%
Hotels and motels, including casino hotels	\$503,446	\$34,077,746	\$34,581,191	1%
Other accommodations	\$8,510	\$1,571,293	\$1,579,802	1%
Full-service restaurants	\$31,215,208	\$5,438,459	\$36,653,667	85%
Limited-service restaurants	\$58,703,428	\$40,246,795	\$98,950,223	59%
All other food and drinking places	\$17,969,041	\$5,657,942	\$23,626,983	76%

IMPLAN Sector Services (Personal Services)	Current Spending	Additional Production	Total Demand	%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Automotive repair and maintenance, except car washes	\$19,737,448	\$18,012,452	\$37,749,900	52%
Car washes	\$1,899,496	\$2,202,743	\$4,102,239	46%
Electronic and precision equipment repair and maintenance	\$769,172	\$5,396,840	\$6,166,012	12%
Commercial and industrial machinery and equipment repair	\$557,416	\$2,794,084	\$3,351,500	17%
Personal and household goods repair and maintenance	\$5,445,571	\$884,848	\$6,330,420	86%
Personal care services	\$6,699,485	\$10,842,918	\$17,542,404	38%
Death care services	\$698,146	\$3,454,181	\$4,152,326	17%
Dry-cleaning and laundry services	\$667,974	\$3,330,964	\$3,998,938	17%
Other personal services	\$9,523,906	\$1,150,124	\$10,674,029	89%

IMPLAN Sector Services (Churches, Nonprofits, and Unions)	Current Spending	Additional Production	Total Demand	%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Religious organizations	\$1,965,901	\$13,431,197	\$15,397,099	13%
Grantmaking, giving, and social advocacy organizations	\$8,296,821	\$9,486,826	\$17,783,647	47%
Business and professional associations	\$1,674,494	\$7,000,328	\$8,674,822	19%
Labor and civic organizations	\$5,934,595	\$8,072,440	\$14,007,035	42%

IMPLAN Sector Services (Household Operations)	Current Spending	Additional Production	Total Demand	%
	On Local Production	for Self-Reliance	For Local Production	Self-Reliant
Private households	\$1,822,118	\$3,555,511	\$5,377,629	34%

Acknowledgments

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About the Author

██████████ is an economist, attorney, author, and entrepreneur. He's director of Local Economy Programs for Telesis Corporation, a nonprofit affordable housing company, and currently an adjunct instructor at Bard Business School in New York City and at Simon Fraser University in Vancouver. He's also a Fellow at Cutting Edge Capital and at the Post-Carbon Institute, and a founding board member of the Business Alliance for Local Living Economies (BALLE). He is credited with being one of the architects of the 2012 JOBS Act and dozens of state laws overhauling securities regulation of crowdfunding.

██████████ has authored, coauthored, or edited nine books. His most recent book is *The Local Economy Solution: How Innovative, Self-Financing Pollinator Enterprises Can Grow Jobs and Prosperity* (Chelsea-Green, 2015). One of his previous books, *The Small Mart Revolution: How Local Businesses Are Beating the Global Competition* (Berrett-Koehler, 2006), received a bronze prize from the Independent Publishers Association for best business book of 2006.

A prolific speaker, ██████████n has given an average of more than one invited talk per week, mostly to local governments and universities, for the past 30 years in nearly every U.S. state and more than a dozen countries.

██████████ has written nearly one hundred published articles for such periodicals as *New York Times*, *Washington Post*, *Nation*, *Weekly Standard*, *Foreign Policy*, *Parade*, and *The Chronicle on Philanthropy*. In 1980 he won First Prize in the Rabinowitch Essay Competition of the Bulletin of the Atomic Scientists on "How to Prevent Nuclear War."

██████████ received an A.B. with distinction in economics and international relations from Stanford University in 1979 and a J.D. from Stanford Law School in 1982. Between 1987 and 1990 he was a W.K. Kellogg National Leadership Fellow. He is also a member of the State Bars of California and the District of Columbia.

Name	Mailing Address	E-mail	Property Address
[REDACTED]	[REDACTED] Oak Harbor, WA 98277	[REDACTED]	
[REDACTED]	[REDACTED] Sequim, WA 98382	[REDACTED]	
[REDACTED]	[REDACTED] Sequim, WA 98382	[REDACTED]	
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
[REDACTED]	[REDACTED] Pt. Townsend, WA 98368	[REDACTED]	
[REDACTED]	[REDACTED] Chimacum, WA 98325	[REDACTED]	
[REDACTED]	[REDACTED] Lopez Island, WA 98261	[REDACTED]	
[REDACTED]	[REDACTED] Greenbank, WA 98253	[REDACTED]	
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
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[REDACTED]	[REDACTED] Port Ludlow, WA 98365	[REDACTED]	[REDACTED] Coupeville, WA 98239
[REDACTED]	Friday Harbor, WA	[REDACTED]	
[REDACTED]	[REDACTED] Port Angeles, WA 98363	[REDACTED]	
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[REDACTED]	[REDACTED] Freeland, WA 98249	[REDACTED]	
[REDACTED]		[REDACTED]	
[REDACTED]		[REDACTED]	
[REDACTED]	[REDACTED] Laupahoehoe, HA 96764		Langley, WA

Name	Mailing Address	E-mail	Property Address
[REDACTED]	[REDACTED] Friday Harbor, WA 98250		
[REDACTED]	[REDACTED] Laupahoehoe, HA 96764		Langley, WA
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	[REDACTED] Coupeville, WA 98239
[REDACTED]	[REDACTED] Coupeville, WA 98239		
[REDACTED]	[REDACTED] Coupeville, WA 98239		
[REDACTED]	[REDACTED] Langley, WA 98260	[REDACTED]	
[REDACTED]	[REDACTED] Langley, WA 98260		
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[REDACTED]	[REDACTED] Langley, WA 98260	[REDACTED]	
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
[REDACTED]	The Hope Clinic	[REDACTED]	
[REDACTED]	[REDACTED] Seattle, WA 98109	[REDACTED]	[REDACTED] Coupeville, WA 98239
[REDACTED]	[REDACTED] Langley, WA 98260	[REDACTED]	

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[REDACTED]	[REDACTED] Nordland, WA 98358	[REDACTED]	
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[REDACTED]	[REDACTED] Coupeville, WA 98239		
[REDACTED]	[REDACTED] Freeland, WA 98249	[REDACTED]	
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[REDACTED]	[REDACTED] Pt. Angeles, WA 98362	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED] Langley WA 98260	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED] Olympia, WA 98506	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED] Clinton, WA 98236	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED] Port Townsend, WA	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED] Port Townsend, WA	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED] Friday Harbor, WA 98250	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED] Port Townsend, WA 98368	[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED] Friday Harbor, WA 98250	[REDACTED]	
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
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[REDACTED]	[REDACTED] Mt. Vernon, WA 98273	[REDACTED]	
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[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
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[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
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[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
[REDACTED]	[REDACTED] Langley, WA 98260	[REDACTED]	
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[REDACTED]	[REDACTED] Clinton, WA 98239	[REDACTED]	
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G [REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	

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[REDACTED]	[REDACTED] Pt. Townsend, WA 98368	[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED] Port Townsend, WA 98368-0210	[REDACTED]	
[REDACTED]	[REDACTED] Pt. Townsend, WA 98368	[REDACTED]	
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
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[REDACTED]	[REDACTED] Greenbank, WA 98253	[REDACTED]	
[REDACTED]	[REDACTED] Port Townsend, WA 98368	[REDACTED]	
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[REDACTED]	[REDACTED] Langley, WA 98260	[REDACTED]	
[REDACTED]	[REDACTED] Clinton, WA 98236	[REDACTED]	
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Name	Mailing Address	E-mail	Property Address
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[REDACTED]	[REDACTED] Langley, WA 98260	[REDACTED]	
[REDACTED]	[REDACTED] Freeland, WA 98249	[REDACTED]	
[REDACTED]	[REDACTED] Pt. Townsend, WA 98368	[REDACTED]	
[REDACTED]	[REDACTED] Langley, WA 98260	[REDACTED]	
[REDACTED]	[REDACTED] Nordland, WA 98358	[REDACTED]	
[REDACTED]	[REDACTED] Pt. Townsend, WA 98368	[REDACTED]	
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
[REDACTED]	[REDACTED] Brush Prairie WA 98606	[REDACTED]	
[REDACTED]	[REDACTED] Brush Prairie WA 98606	[REDACTED]	
[REDACTED]	[REDACTED] Port Townsend, WA 98368	[REDACTED]	
[REDACTED]	[REDACTED] Langley, WA 98260	[REDACTED]	

Name	Mailing Address	E-mail	Property Address
[REDACTED]	[REDACTED] Coupeville, WA 98239		
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[REDACTED]	[REDACTED] Coupeville, WA 98239		
[REDACTED]	[REDACTED] Freeland, WA 98249	[REDACTED]	
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[REDACTED]	[REDACTED] Langley, WA 98260	[REDACTED]	
[REDACTED]	[REDACTED] Pt. Townsend, WA 98368	[REDACTED]	
[REDACTED]	[REDACTED] Pt. Townsend, WA 98368	[REDACTED]	
[REDACTED]	[REDACTED] Woodinville, WA 98072	[REDACTED]	
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
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[REDACTED]	[REDACTED] Pt. Townsend, WA 98368		
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	

Name	Mailing Address	E-mail	Property Address
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[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
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[REDACTED]	[REDACTED] Langley WA 98260	[REDACTED]	
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[REDACTED]	[REDACTED] Pt. Townsend, WA 98368	[REDACTED]	
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
[REDACTED]	[REDACTED] Clinton, WA 98236		
[REDACTED]	[REDACTED] Coupeville, WA 98239	[REDACTED]	
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Name	Mailing Address	E-mail	Property Address
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[REDACTED]		[REDACTED]	
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[REDACTED]	[REDACTED] Portland, OR 97212	[REDACTED]	
[REDACTED]	[REDACTED] Coupeville, WA 98239		[REDACTED] Eugene, OR 97403-2192
[REDACTED]	Coupeville, WA 98239	[REDACTED]	
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[REDACTED]	Langley, WA 98260	[REDACTED]	
[REDACTED]	Langley, WA 98260	[REDACTED]	
[REDACTED]	[REDACTED] Camano Island, WA	[REDACTED]	
[REDACTED]	[REDACTED] Portland, OR 97212		

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[REDACTED] [REDACTED]	[REDACTED] Sequim, WA 98382		

Oak Harbor, WA 98277

I am the [REDACTED] of the Oak Harbor Navy League. As I have stated to numerous community and elected leaders, I hope pedigree counts with respect to inputs. I think business owners and local leaders should count more than old sixties-style bile-filled zealots, without the face for it anymore. I sincerely hope you are tabulating individual contacts. Whether I personally make one comment or fifty, whether on line, at an outreach meeting here on Whidbey, or via mail, I should only count as one, unique contact. I have received numerous emails warning of the anti-Navy tactics of stacking the count by numerous comments, each sent individually, via all contact means. For instance, the Forest Service received 3,000 negative comments concerning Growler flight ops over the Olympic Peninsula, all generated from a small group of people. This is significant, and should be an aspect of your comment characterization. My personal efforts include co-sponsoring a pro-Navy petition, with the City of Oak Harbor and the Chamber of Commerce; speaking against the anti-Navy group at a county health board meeting; sending numerous info sheets to Navy League membership and to community leaders. I also corrected the local Port Commissioners when they rather dramatically misstated the effects of jet noise on their potential tax levy, which I also cced to elected leaders. -- Plus other numerous meetings and efforts. I have resided on Whidbey Island since 1987. My entire 22 year was spent in the PNW within commuting distance. Anti-Navy Navy groups have waxed and waned during this time. This current version is particularly energetic and creative. None have significant community standing or contribution beyond their activism. I am a retired Prowler NFO and have spent numerous periods 'bouncing' both at Coupeville and at NASWI. Though still an ersatz representation, there is no comparison between the two. Coupeville is much more illustrative of the CVN environment, especially for new pilots. The better the training, the better the risk reduction... as I have stated to many elected officials and local leaders. I still remember the many Martin Baker patches of the late '80s. With respect to jet noise and countering anti-Navy dissimulation: - Health effects of jets. There has been 50 years of jet flight ops at OLF Coupeville, to include the very loud A-3D. By this time there should be correlated health effects, not just at OLF, but at any Super Hornet base, and at every jet base since the Korean War, many with far higher population densities than Island County. There are none. Economic Impact: Though this input is for NASWI and OLF Coupeville, you should note, despite many decades of flight ops over the Olympic Peninsula, that national park just had its sixth busiest year and is the seventh busiest national park in the nation (verifiable via media). By extension, Deception Pass has remained possibly the busiest park in the state, despite 75 years directly next to NASWI. - Property values. Since the first Growler squadron in 2009, median residential sales values have increased by \$60K in the city of Coupeville, to \$288K in 2016. Central Whidbey volume of land sales have also steadily increased since 2009. All valuation relationships are to national figures, not historical OLF practice numbers. -- All easily verifiable via realtor MLS. Note also, Coupeville business appraisals are strong, as verified via local bankers. In closing, there are few concerns or information by the anti-Navy groups which are reasonable, factual or valid. However, there are very numerous reasons to increase Growlers and the Growler aircrew gene pool. We need even more than what is currently proposed. Their mission and expertise are peerless.

- 1.a. Thank You
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments
- 2.m. Record of Decision/Preferred Alternative
- 4.r. Nonauditory Health Effects

(Not to mention Stealth has dramatically faded as a viable primary technology.) OLF
Coupeville is one of the premier FCLP landing fields. We should make good use of it.
Warm regards, [REDACTED]



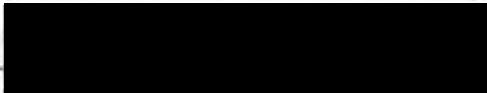
Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex*.

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting*; (2) *Speak with the stenographer, who will record your comments*; (3) *Submit your comments on the project website at www.whidbeyeis.com*; or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS*.

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name



2. Organization/Affiliation

3. Address

Lopez Island

4. E-mail

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

please come
register the decibels
of noise level on
south Lopez Island.

Please print - Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

1.a. Thank You

4.f. Noise Measurements/Modeling/On-Site Validation

Lopez Island, WA 98261

I live on the south end and have been significantly impacted by the Navy's Growler program. I have met repeatedly with my neighbors and community members, and we have reviewed the Navy's EIS in detail and are concerned about its scope and validity. Please review my itemized comments below to note the details of my complaints against the EIS for EA-18G Growler Airfield Operations at NAS Whidbey Island. 1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

1.a. Thank You

12.a. Socioeconomic Study Area

12.h. Tourism

12.j. Property Values

2.b. Scope of the Environmental Impact Statement and Analysis Conducted

2.c. Compliance with the National Environmental Policy Act

2.e. Public Involvement Process

2.k. Range of Alternatives

2.n. Alternatives Considered But Eliminated

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

4.d. Day-Night Average Sound Level Metric

4.f. Noise Measurements/Modeling/On-Site Validation

4.g. Average Annual Day/Average Busy Day Noise Levels

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.j. Other Reports

4.r. Nonauditory Health Effects

4.t. Noise Mitigation

7.h. San Juan Islands National Monument

ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared. 1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude

meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared. Thank you for taking my comments and for your service to your citizens and country. [REDACTED]

1.a. Thank You
7.c. Noise Disclosure

Coupeville, WA 98239

I live down the hill from OLF in Crockett Lake Estates. I have lived here for over 25 years, and I knew what the noise level would be when I bought my house. The OLF has been here longer than most of the people who complain about it. I am all for our military getting the practice they need in order to land on aircraft carriers. OLF is where they get the touch and goes they need. Let's keep them as safe as we can. If you bought a house in this area and we're not informed re: noise level and such, then it seems to me your complaint is with your real estate company, not the USN. I, for one liberal, strongly support our military.

1.a. Thank You

Freeland, WA 98249

I am in support of the continuance of allowing Growler's to fly anywhere in Washington including over Whidbey Island. Our Military Support of this Country must come first.

Shoreline, WA 98155

Please do not allow the military to increase their activity in the Olympic National Park. This is a place for wildlife to live in peace and for Washington families as well as people from around the states and the world to relax in a naturally spectacular setting. The harm that the noise pollution, not to mention fuel pollution would do is immense and unnecessary.

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)

7.d. Recreation and Wilderness Analysis and Study Area



Public Meeting Comment Form

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To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) Provide written comments at today's public meeting; (2) Speak with the stenographer, who will record your comments; (3) Submit your comments on the project website at www.whidbeyeis.com; or (4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.

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1. Name

2. Organization/Affiliation

3. Address

4. E-mail

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

I learned a lot at this presentation. I still find the growlers to be offensively loud, and hope that the navy is consulting multiple think tanks to resolve the noise issue while maintaining performance, perhaps a totally different engine/propulsion system. Then of course, to make the investment to make the change for the better. Good people here today. Thank you. Navy, please be responsible to your neighboring civilians.

Please print • Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS
YOUR INPUT MATTERS

1.a. Thank You
 4.t. Noise Mitigation

Anacortes, WA 98221

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Anacortes, WA 98221

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

Anacortes, WA 98221

The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data.

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports

Anacortes, WA 98221

1.a. Thank You
4.j. Other Reports

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconception has to be credibly revised to properly characterize the real impacts.

Anacortes, WA 98221

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Shelton, WA 98584

1.a. Thank You

10.c. Wildlife Sensory Disturbance and Habituation

10.f. Endangered Species Impact Analysis Adequacy

I do not believe that the impact of Naval training exercises over and around Marbled Murrelet nesting habitat has been adequately considered in the EIS. This state-endangered species needs further study to ensure that human activities do not risk its extirpation from Washington.

1.a. Thank You

Oak Harbor, WA 98277

I have lived on this Island for 20 years. I support the Navy 100%. I am the Navy/Growlers BIGGEST supporter. Let em' fly, bounce and rock my world any day of the week and twice on Sunday. I LOVE jet noise and have even requested they fly lower and louder. I find the roar of their engines to be peaceful and have been known to stop what I'm doing just to watch them touch-and-go. They bring a smile to my face and take away my stress. I love our Naval Aviators. Stay safe. I appreciate you and what you do, so very much.

Freeland, WA 98249

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 4.r. Nonauditory Health Effects

I strongly object to adding more hours to the Growler flights. Our small farming community cannot take the level of noise and stress that would be engendered by such an addition. These extra flights should be carried out in Eastern Washington on the open plains - not over small farms and houses. Thank you.

1.a. Thank You

Everett , WA 98272

I fully support keeping Growler operations at NAS Whidbey.

Anacortes, WA 98221

Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Fill in and Submit at the Open House Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days.

- 1.a. Thank You
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations



BRICKLIN & NEWMAN LLP
lawyers working for the environment

Reply to: Seattle Office

December 19, 2016

Naval Facilities Engineering Command Atlantic
Attn: Code EV21/SS
6506 Hampton Boulevard
Norfolk, VA 23508

Dear Project Manager:

I am writing to you on behalf of the Citizens of the Ebey's Reserve ("Citizens") regarding the United States Navy's Draft Environmental Impact Statement for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex. Citizens—supported by a growing list of coalition groups, including Friends of the San Juan's; Concerned Island Citizens, Oak Harbor; Quiet Skies Coalition, Lopez Island; Protect the Olympic Peninsula; Save the Olympic Peninsula; North Olympic Group, Sierra Club; Protect the Olympic Peninsula; Whidbey Environmental Action Network; Washington Physicians for Social Responsibility; and Veterans for Peace—is requesting a 90-day extension of the comment period on the Draft Environmental Impact Statement that currently ends on January 25, 2017. Citizens requests that the Navy extend the comment period until April 25, 2017.

The Draft Environmental Impact Statement contains lengthy and highly technical information that requires careful study, research, and analysis to properly comment on environmental impacts that could result from the Navy's proposed action. For instance, the Draft Environmental Impact Statement relies upon complex computer modeling to analyze the noise impacts associated with the four alternatives. Citizens has limited access to experts capable of analyzing the Navy's noise modeling and, therefore, it will take significant amounts of time to fully review and comment upon this aspect of the Draft Environmental Impact Statement. There are multiple other instances of complex and technical analyses performed within the Draft Environmental Impact Statement that necessitate time-consuming review to fully and accurately submit comments.

The length of the Draft Environmental Impact Statement also poses challenges to completing adequate review and comment. Including appendices, the current draft is over 1,400 pages long, and it will take significant time to review. The winter holidays will impact Citizens' and the public's ability to devote the necessary time to fully review the Draft Environmental Impact Statement and the various appendices included.

Finally, the comment period should be extended due to the on-going investigation of toxic contamination of private and public wells that supply drinking water. The Navy notified the owners of more than 100 private and public drinking wells of potential contamination on

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments

Naval Facilities Engineering Command Atlantic
December 19, 2016
Page 2

November 7, 2016. The Navy has not disclosed the number or locations of the contaminated wells because the testing is apparently on-going. This information is vitally important to the environmental analysis contained within the Draft Environmental Impact Statement. Testing found Perfluorooctanoic Acid ("PFOA") within several wells. PFOA is linked to kidney and testicular cancers, birth defects, damage to the immune system, heart and thyroid disease, and complications during pregnancy. EPA's Science Advisory Board labeled it a likely human carcinogen. The Navy still uses firefighting foam containing PFOA, and the potential for more accidents necessitating the increased use of the toxic firefighting foam is something that must be analyzed within the Draft Environmental Impact Statement. Citizens and other members of the public cannot accurately comment on the existing environmental conditions and the environmental impacts of further potential toxic contamination until this information is disclosed.

To allow fully-informed public comments, the Navy should extend the public comment period for the Draft Environmental Impact Statement until April 25, 2017. An extension will allow public to submit reasoned public comment and allow the Navy to carefully consider and respond to comments. *See* 40 C.F.R. § 1503.4. Please provide a response to this request for an extension by December 31, 2016.

Very truly yours,

BRICKLIN & NEWMAN, LLP



:psc

Oak Harbor, WA 98277

I have lived on Whidbey Island for 45 years. During that time, I have lived within 3-4 miles of NAS Whidbey Ault Field, first near the corner of Heller and Crosby Roads, then at [REDACTED]. I am not "officially" under the flight path. What I have noticed is that the planes do not always stay within the flight path. When they do fly over my house, the noise outside is unbearable. I have to come inside to my well-insulated house, which in the summer months is very annoying. I am also concerned about the noise and pollution affecting the other parts of the island as well as how the increased Navy personnel will negatively affect the rural atmosphere here. I was a Navy wife for 19 years and have always supported your mission. However, the new Growler is absolutely louder than the previous planes based here, especially when they fly out of the flight pattern. I am also concerned about the effects of the increased noise and planes on the other parts of Whidbey Island and surrounding areas. Classrooms are disrupted, Deception Pass State Park at the north end of the island has many complaints during the summer. The increase in Navy personnel is also affecting the rural atmosphere of our community. This whole issue has divided us. It needs to be addressed and taken seriously. In summary, my suggestions: 1. Please train your pilots to stay within the flight path. 2. Limit the number of Growler planes that are based at NAS Whidbey. 3. Find a way not to fly over our tourist areas like Deception Pass State Park. 4. Be more sensitive to the health needs of the community and how you can facilitate solving the problems that are arising because of these noisy planes. Sincerely, [REDACTED]

- 1.a. Thank You
- 3.a. Aircraft Operations
- 3.e. Field Carrier Landing Practice Patterns
- 3.f. Field Carrier Landing Practice Operation Totals
- 3.g. Field Carrier Landing Practice Evolutions and High Tempo
- 4.l. Points of Interest
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.a. Regional Land Use and Community Character

1.a. Thank You

Oak Bay, British Columbia V8S 4V7

I'm a resident of Oak Bay and hear the 'growler' sound from time to time and understand there will be an expanded use of planes that cause this sound. This sound doesn't bother me at all and I have no concerns about the expanded use of the planes. The sound is a nice reminder of the US airforce who I'm sure would support Canada in a time of need.

1.a. Thank You

Lngley, WA 98260

KEEP UP THE GOOD WORK! WE APPRECIATE ALL THAT YOU DO!

1.a. Thank You

Langley, WA 98260

I SUPPORT THE NAS ON OUR ISLAND. TOO MANY PEOPLE ARE SOUNDING OFF WITH DISCONTENT, BUT I THINK YOU ARE DOING N EXCELLENT JOB - KEEP UP THE GOOD WORK!! [REDACTED]

coupeville, WA 98239

1.a. Thank You

4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

coupeville, WA 98239

1.a. Thank You

4.q. Potential Hearing Loss

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Lopez Island, WA 98261

1.a. Thank You

2.n. Alternatives Considered But Eliminated

The Navy is pushing people to the breaking point with the 24/7 Growler noise pollution. The answer, we need room for 35 more and the noise is going to increase by 50% This just isn't Lopez it is the San Juans, Anacortes, LaConner, Coupeville, Deception Pass some of the most beautiful areas in the NW. The EPA must have some type of noise pollution policy. There has to be a better answer here, With the increase in population in this area the Navy should consider some other area less populated to fly these planes . All I want for Christmas is a Quiet Day.

IN THE MATTER OF:
The Open House Public Meeting for the Draft Environmental
Impact Statement (EIS) for EA-18G "Growler" Airfield
Operations at Naval Air Station (NAS) Whidbey Island Complex

DATE TAKEN: Friday, December 9, 2016

PLACE: Coupeville High School
501 South Main Street
Commons
Coupeville, Washington

TIME: 4:00 p.m. to 7:00 p.m.

REPORTED BY: Mary Mejlaender, CCR No. 2056
Likkell & Associates
Court Reporters & Legal Video
2722 Colby Avenue
Suite 706
Everett, WA 98201
depos@likkellcourtreporters.com

LIKKEL & ASSOCIATES, COURT REPORTERS & LEGAL VIDEO
2722 Colby Avenue, Suite 706, Everett, WA, 98201

(425) 259-3330

1.a. Thank You
4.d. Day-Night Average Sound Level Metric
7.b. Land Use Compatibility and Air Installations Compatible Use
Zones

7 (The personal identifiable information disclosure
8 statement was read to the following commenter.)

9 MR. [REDACTED]: My name is [REDACTED],
10 and I am the former [REDACTED] of the Federal Aviation
11 Administration Airports Division of the Northwest Region
12 located in Seattle, Washington.

13 My concern is that this entire EIS is flawed
14 because it will not provide the type of information that is
15 needed by local decision-makers so that they can take
16 appropriate action resulting in proper land use zoning.
17 This is primarily in the area of the noise contours. The
18 generalized noise contours used in the study are worthless
19 because they do not identify the areas that are severely
20 impacted. An average noise indicator for any location
21 cannot begin to tell people what the true noise level will
22 be on that parcel of land when aviation operations are
23 occurring.

24 Ninety-five percent of the time, in the most
25 severely impacted areas, the primary noise or sound that

██████████ Airport Consultant

██████████/Coupeville, Washington/phone ██████████

To: EA-186 EIS Project Manager

The purpose of this letter is to bring to your attention a very serious deficiency in the draft EIS for EA-18G "growler" airfield operations at the NAS Whidbey Island Complex. This deficiency in properly displaying the noise effects in the National Historic Reserve area renders the document essentially worthless to local decision makers.

I am a 40 year land owner as well as a 27 year resident. I know a good deal about noise contours and compatible land use. For 14 years I was the Airports Division Chief of the Federal Aviation Administration, Northwest Mountain Region. One of my responsibilities in this position was to help airport owners achieve compatible land use around their airports. This included land acquisition and easements plus proper zoning in noise impacted areas.

The noise contours developed for and presented in the study make no distinction between severely impacted areas close to the airport and parts of Fort Casey several miles away. Thus, some areas within these so called average sound level areas are unlivable and others are lightly affected. Therefore the noise contours have no value. Further, these average sound level contours in a 24 hour period give you no idea of how severe the impact can be at a specific location. For example, some areas 95% of the time would only experience the sound of birds or the wind. Then when flight operations are occurring the same close in areas could easily be uninhabitable due to the noise level.

To give you another actual example, when I purchased the property 40 years ago, I had the noise contours for OLF on file in my FAA office. They indicated my property was well outside of Zone 1, 2 or 3. So, no serious effect would be expected. For most of our years here that was the case. We are one half mile west of the prescribed downwind leg for operations and the previous aircraft normally flew the prescribed pattern.

- 1.a. Thank You
- 3.d. Arrivals and Departures
- 4.d. Day-Night Average Sound Level Metric
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.m. Supplemental Metrics
- 8.a. Cultural Resources Area of Potential Effect

Unfortunately, the new aircraft typically do not fly the prescribed pattern and they are far noisier. Now, the actual downwind leg is about 400 yards in front of our house. So, when the new Growlers are flying, conversation stops and we have to go inside. The new EIS does not demonstrate accurately what is happening. Now the Navy is proposing to increase operations from 6,000 to 35,000. The result for this area in particular and the National Historic Area in general would be devastating.

In conclusion, insofar as the National Historic Reserve is concerned, the EIS should be scrapped and start over using proper noise contours so that the local decision makers can make intelligent decisions regarding operations and appropriate land use. Your action to see that this happens would be greatly appreciated as no one can make proper decisions with useless information.

Sincerely,



Vashon, WA 98070

1.a. Thank You
19.e. Naval Special Operations EA

Your plan for Growlers and other war games on the Plympic peninsula is unacceptable.
our environment and peace cannot support this, Work for peace, not war!!! [REDACTED]

Victoria, British Columbia V8R 3V9

These jets are insanely loud low frequency rumbles that can be heard across the Salish sea in Victoria, BC, Canada. Noise pollution can negatively impact the health of people, a study with an example of this:
<https://academic.oup.com/bmb/article/68/1/243/421340/Noise-pollution-non-auditory-effects-on-health> Please re-consider adding more noise polluting jets to our shared coast.

1.a. Thank You

4.r. Nonauditory Health Effects



Public Meeting Comment Form

Thank you for attending the public meeting on the Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) Provide written comments at today's public meeting; (2) Speak with the stenographer, who will record your comments; (3) Submit your comments on the project website at www.whidbeyeis.com; or (4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name
- 2. Organization/Affiliation
- 3. Address
- 4. E-mail
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

PLEASE CONSIDER LOW FREQUENCY NOISE MEASUREMENTS.

AT LEAST CONSIDER AT A TECHNOLOGICAL

FIX FOR THIS BASE. POWER LINE NOISE IS A RIDICULOUS DEFENSE

Please print - Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.t. Noise Mitigation

Lopez, WA 98261

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in

1.a. Thank You

12.a. Socioeconomic Study Area

12.h. Tourism

2.c. Compliance with the National Environmental Policy Act

2.e. Public Involvement Process

2.k. Range of Alternatives

2.n. Alternatives Considered But Eliminated

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

4.d. Day-Night Average Sound Level Metric

4.f. Noise Measurements/Modeling/On-Site Validation

4.g. Average Annual Day/Average Busy Day Noise Levels

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.j. Other Reports

4.r. Nonauditory Health Effects

4.t. Noise Mitigation

7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared.



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name _____

2. Organization/Affiliation *Citizen* _____

3. Address *Carpenterville* _____

4. E-mail _____

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

Why should Carpenterville have the majority of growler noise? Why 80% of the truck + go? The navy needs to do an actual sound level test. No one from the navy has ever done an actual sound level test at Carpenterville. The growler level of noise has been proven to be detrimental to the development of children. How does it make any sense to have 45-50 growler passes over Carpenterville schools per hour. How can student learn

(over)

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.j. Property Values
- 2.a. Purpose and Need
- 2.n. Alternatives Considered But Eliminated
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 5.a. Accident Potential Zones

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

if they can't hear the teacher?

Most of the Courville area will be in a crash zone in addition to the noise zone. This will cause property values to crash also. I am old and a lot has happened since I built my dream home 25 years ago. One of the worst things is the Navy's cavalier attitude about the growler noise. I don't care if my home value crashes. My kids are financially OK and don't need my money. However, there are a lot of people in the area who will be badly hurt.

Now we find that the Navy may have polluted our wells. Monts, this being said our PCB and PFC's too bad we can't see the navy.

Find another place and close OLF

For more information, please visit the project website at whidbeyis.com

Please print

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic

6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Nordland, WA 98358

My name is [REDACTED] and I have lived on Marrowstone Island, Nordland WA 98358 for 36 years. I have been directly and adversely affected by the Growler training flights. These flights threaten both my health and my livelihood. I had polio as a child and have managed to stay active and healthy as a result of creating a low-stress life, despite a compromised nervous system. I can best describe it as "having a 12-volt system in a 110 world." One of the ways I keep my stress low is by living and working without background noise. I don't have a TV, nor do I play the radio or music while I'm concentrating on anything else. The noise of the jets, which is constant and loud when they are flying, makes me anxious, unable to concentrate, and it wakes me up from sleep. Rest is another important reason I've stayed healthy and the noise is so loud when they're flying that I feel like I'm under assault. And, in a way, I am. I'm also concerned that the noise impacts my business. Besides being unable to concentrate while they're training, I can't shoot video because the noise bleeds into my studio. Here are some of the videos I shoot: [REDACTED] Others are classes for which people pay. I also have individualized classes I hold here. Part of why people attend is because of the peaceful, scenic beauty of the place. These flights destroy that. (see [REDACTED])

1. I urge the Navy to include Marrowstone Island on Environmental Impact Statement.
2. I urge the Navy to thoroughly explore alternative training sites that are more appropriate for such a high impact activity
3. I urge the Navy to thoroughly evaluate the impact on wildlife, particularly endangered and critical species. Finally, I am asking that citizens' health and well being be placed as a priority for the Puget Sound region, before the expansion of the Growler program.

Thank you. [REDACTED] Nordland WA 98358

[REDACTED]

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.f. Endangered Species Impact Analysis Adequacy
- 12.f. Economic Hardship and Impacts
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

EA-18G Growler EIS Project Manager
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard
 Norfolk, VA 23508
 Attn: Code EV21/SS

Dear Sir or Madame:

My name is [REDACTED] and I have lived on Marrowstone Island, Nordland WA 98358 for 36 years. I have been directly and adversely affected by the Growler training flights. These flights threaten both my health and my livelihood.

I had polio as a child and have managed to stay active and healthy as a result of creating a low-stress life, despite a compromised nervous system. I can best describe it as "having a 12-volt system in a 110 world." One of the ways I keep my stress low is by living and working without background noise. I don't have a TV, nor do I play the radio or music while I'm concentrating on anything else. The noise of the jets, which is constant and loud when they are flying, makes me anxious, unable to concentrate, and it wakes me up from sleep. Rest is another important reason I've stayed healthy and the noise is so loud when they're flying that I feel like I'm under assault. And, in a way, I am.

I'm also concerned that the noise impacts my business. Besides being unable to concentrate while they're training, I can't shoot video because the noise bleeds into my studio. Here are some of the videos I shoot: [REDACTED]
 [REDACTED] Others are classes for which people pay. I also have individualized classes I hold here. Part of why people attend is because of the peaceful, scenic beauty of the place. These flights destroy that. [REDACTED]
 [REDACTED])

1. I urge the Navy to include Marrowstone Island on the Environmental Impact Statement.
2. I urge the Navy to thoroughly explore alternative training sites that are more appropriate for such a high impact activity
3. I urge the Navy to thoroughly evaluate the impact on wildlife, particularly endangered and critical species.

Finally, I am asking that citizens' health and well being be placed as a priority for the Puget Sound region before the expansion of the Growler program. Thank you.

[REDACTED]
 Nordland WA 98358
 [REDACTED]

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.f. Endangered Species Impact Analysis Adequacy
- 12.f. Economic Hardship and Impacts
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

- 1.a. Thank You
- 12.n. Quality of Life
- 2.m. Record of Decision/Preferred Alternative
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects

1 UNITED STATES NAVY
2 PUBLIC MEETING
3 FORT WORDEN STATE PARK CONFERENCE CENTER
4 USO HALL
5 200 BATTERY WAY
6 PORT TOWNSEND, WASHINGTON
7 DECEMBER 5, 2016

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ENVIRONMENTAL IMPACT STATEMENT (EIS)
FOR EA-18G "GROWLER" AIRFIELD OPERATIONS
AT THE NAVAL AIR STATION (NAS)
WHIDBEY ISLAND COMPLEX

Court Reporter: Nicole Johnson
Olympic Court Reporting Services
Chimacum, Washington 98325
(360) 732-4600

19 ██████████: In general, to start with, I
20 feel very much threatened by this whole project. Already,
21 my life -- my quality of life is diminished by what I
22 hear, the jets here in Port Townsend. It has also kept
23 myself and my family from enjoying the family trips to
24 Coupeville that we used to enjoy because that's where our
25 roots are.

1 I hear the jets. Whichever field they take off
2 from, I hear them here in Port Townsend. I hear them when
3 they fly over the Straits, as well as not in the
4 Straits -- you know, as well as closer in. The idea that
5 this noise would increase to such a degree as they are
6 showing makes me feel that I would not be able to live in
7 my own town anymore. And I do not know where to go. I'm
8 71. This is my community, and I don't know where to go.

9 When these jets that are so loud -- and I've
10 been listening to them -- I've lived here for 43 years.
11 I've been listening to them over the years, and it has
12 definitely increased in volume.

13 And now, even more than ever, I will not be able
14 to sleep when I want, eat a quiet meal when I'd like, have
15 quiet to write a letter or pray or meditate. When we
16 cannot sit with a dying neighbor without jet noise
17 overhead, when I have been ill with heart problems
18 desperately needing peace, I'm not allowed to have it
19 because of the noise.

20 When a sick nephew needs comforting, there's
21 loud noise and it makes it harder. When I want to step
22 outside to enjoy my garden and I cannot. This is going to
23 get way more invasive for all these things, and I cannot
24 see how I can survive here. One form of torture is to
25 expose someone to constant, loud noise. This is torture

1 of citizens.

2 It is also going to impact parks, wilderness,
3 other recreational areas that belong to the public, and
4 the public will not be able to use them for recreation or
5 communicating with nature if the increased noise -- when
6 the increased noise takes that possibility away.

7 I know that the Navy wants to be prepared to
8 protect somebody from enemy attacks. I would rather die
9 in a nuclear attack from North Korea than live with
10 constant torture from noise that I cannot escape from.

11 Also, I prefer the no-action alternative, which
12 I expect you will not even consider because you do not
13 care. One of the alternatives must be forced on us. I
14 prefer Alternative 3, Scenario C, if I'm reading this
15 right. Thank you.

1.a. Thank You

freeland, WA 98249

We support the Naval Air Force and all endeavors to keep this nation safe and free!

Port Townsend, WA 98368

It is a tragedy of immeasurable proportions to sacrifice the sublime peace and natural quiet of the Olympic National Park to the steady roar of regular growler flights overhead. Of all the possible places (and I know there are alternative locations that don't encroach on federally established and protected national park land) this is the closest thing we have in this country to sacred space - the national parks - and ONP in particular as the quietest place in the lower 48. Please re-locate these training exercises to where they do not destroy the whole purpose of the National Park as sanctuary. I realize this training must take place somewhere but it must be anywhere other than a National Park and Marine Sanctuary. That's why it is called a "sanctuary": it is protected and safe from encroachment and harm. PLEASE! THANK YOU! Preserve the peace!

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

2.k. Range of Alternatives

7.d. Recreation and Wilderness Analysis and Study Area

1.a. Thank You

Victoria, British Columbia V8Y2R8

Negative comments by some Canadians have been made about the "noise" created by growler aircraft doing practice take-offs 7 landings. Nonetheless, many of us do understand the necessity of such flying. We DO appreciate the support provided by the US Navy! Uncle Sam has our six! We earnestly thank you for this!

Coupeville, WA 98239

As plans for the Growler Expansion at OLF Coupeville move forward I would respectfully like to offer my concerns. I became increasingly alarmed after learning that the Growlers will be operated only on Whidbey Island. It seems this makes our island and its inhabitants extremely vulnerable to terrorist or other destructive events. If the Growlers are such a critical link in our national security and safety flying them from only 1 base seems to create an obvious weakness in our defense, no matter how quickly than can be deployed. We have all had to sit in hours long ferry lines on weekends and the only bridge has 2 lanes and frequently has traffic backed up. I don't like to imagine what would happen if some kind of terrorist attack on the base, the ferry system or the bridge were to create a panic with people trying to get off the island. The elderly and those who have long made this beautiful island their home should not be made to feel expendable by our decisions made by own national defense. You have heard much about the effects from noise and the well pollution which are valid concerns and I would like to add my name with those in asking that all of these be given strigent consideration in your deliberation. Thank you for this opportunity to express my concern about the overall safety involved in this important decision.

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 11.d. Per- and Polyfluoroalkyl Substances
- 2.a. Purpose and Need
- 2.d. Program of Record for Buying Growler Aircraft
- 3.a. Aircraft Operations
- 4.r. Nonauditory Health Effects

Bellingham, WA 98225

Hi Folks, Who are we going to war with next? Not on the Olympic Peninsula for certain. That's where I spend a few days each year, in or near the park, along the coast and other places. You already have MOA's out east in the state. Please use them. Thank you, [REDACTED] 15,800 AC hours in the air.

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 3.a. Aircraft Operations

Nordland, WA 98358

- 1.a. Thank You
- 2.e. Public Involvement Process
- 2.n. Alternatives Considered But Eliminated

It should be noted that the noise levels emitted by the Navy Growlers, known to cause damage to health of humans (and by inference, also mammals and other wildlife), has not fully considered any viable options other than continuing to fly over our land. This is an invasion into our residences which is not welcome or wanted. This is a type of TOXIC TRESPASS which is detrimental to all except Navy personnel. Therefore, the EIS needs to be seriously revised and the location of flights be reconsidered to other less populated areas where impact to people and the environment would be less drastic, at next to no inconvenience or increase in cost to the Navy. If the Navy truly wants to continue its good rapport with residents, it needs to hear the residents who live and work there and seriously re-examine its motives in the proposed EIS.

Nordland, WA 98358

Some important details that were NOT considered in the DEIS: 1) Marrowstone Island was entirely omitted from the draft EIS 2) No ground level noise studies were conducted--just a flawed model that included non-flight days 3) Widespread reports of excessive noise and sleep loss by area residents 4) Waterfowl and marine mammal density increases the risk of bird strikes, and disruption of breeding seals and terns 5) Increase in air emissions 6) Decrease in property values 7) Cause of serious health hazards/and irreparable bodily harm 8) Affect on Bird Migrations and Wildlife 9) Marbled Murrelets and Whales affected 10) Tourism Economy not addressed 11) No alternative in DEIS #1 - The most glaring error in the current DEIS is the omission of Marrowstone Island. We were not included in the DEIS, and this is a gross oversight. Over 800 residents live there and would be affected by the increase of Growler activity. #2 - The other error is that NO ground level noise studies were conducted. The numbers listed were an average which does not reflect the actual day to day impacts that such flights would have. #3 - Many residents have reported excessive noise and sleep loss due to the current flight activities by the Navy. #4 - The impacts on wildlife cannot begin to be measured. Noise disrupts all creatures, from birds to mammals. Many already threatened species are in danger of having their habitat taken from them, which means a reduction of the species and perhaps a decimation of the species in our natural areas. Owls, deer and orcas are just a few of the animals that have acute senses of hearing. Many species are already on the brink of extinction or have been on the endangered species list before, such as the Bald Eagle--many nest very near our property on the island. We must not stand idly by and let this happen to our unique wildlife which is treasured by our citizens. #5 - The EIS concludes that implementation of the proposed action will result in increased levels of carbon dioxide, sulfur dioxide, VOC's, carbon monoxide, nitrogen oxide and particulate matter, yet no measures have been offered to offset this increased pollution. This would have a negative effect on humans and wildlife alike. #6 - The EIS acknowledges in Section 4.10.2.1 that property values decrease with increasing aircraft noise, but it uses only estimates and does not offer any specific mitigation for such loss of value. Many island residents have built their retirement homes here and selling is not a realistic option for many who would suffer severe financial hardship as a result. #7 - Hearing loss is just one of the potential results of increased Navy flights. There are many other real health hazards associated with the noise emitted by the Growlers. See Table 4.2-25 DNL Noise Contour Comparison-Overall Increase in the Number of People within the 65 DNL Noise Contour. Medical experts agree that low "sonar" which the Growlers emit cause not only hearing loss, acknowledged by the Navy who protect their own personnel, but causes damage to internal organs. Dr. Dahlgren has said in a recent article in The Local, that "the cardiovascular system is at risk. Noise excites a classic stress response. . . (which) causes an increase in blood pressure and heart rate and alertness". He also notes that "jet noise interferes with sleep patterns and that lack of sleep can lead to anxiety and depression, which make the Navy flights, particularly ones that continue past midnight, particularly harmful." . . He continues, "If you are exposed to below-audible levels, at 140 decibels, sound waves can actually fracture the liver. . . "If you look at their (sound level) studies from Whidbey, these jets generate sub-auditory effects that were also reaching 140 decibels. People describe that their internal organs

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 10.m. Impacts to Marine Species and Habitat
- 12.h. Tourism
- 12.j. Property Values
- 12.k. Compensation to Citizens for Private Property
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.k. Range of Alternatives
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.l. Points of Interest
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)

are vibrating as these planes fly over their homes, and that is exactly what is happening." (The Local, February 2017, p. 13) #8 - The DEIS has not done enough studies to support their conclusion that migrating and wintering waterfowl have "presumably habituated" to high levels of increase in aircraft operations. This is not based on fact or relevant studies. See year 2021 flight operations; Table 3.1. "1) Therefore, migrating and wintering waterfowl in the study have presumably habituated to high levels of aircraft operations and other human-made disturbances. It is not expected that the Proposed Action would have significant impacts on waterfowl using the study area outside of the breeding season." #9 - "The Proposed Action's aircraft operations have the potential to cause noise and/or visual disturbances of marbled murrelets." (Pages 4-209). Much of the EIS states there is not sufficient research to know if the Marbled Murrelets will be affected. More research needs to be done. The Navy admits in the DEIS Section 4.8.3 that they "will be consulting the USFWS on the Proposed Action's effects on Marbled Murrelets". Also a similar comment about the whales in this section, "The Navy will consult the NMFS regarding the effects determination for Southern Resident killer whales and humpback whales under the EIS.", yet the DEIS does not present any schedule, or a discussion of the planned studies to be performed, or any potential modifications that would be implemented to mitigate any adverse effects. #10 - The Tourism economy so essential to the Olympic peninsula and surrounding areas, including Marrowstone Island has not been addressed. There are several vacation cabins and a General Store as well as Flagler State park, which all attract outside visitors every year. A National Park Service report issued in July 2014 showed that in 2013, the 3,085,340 visitors to Olympic National Park spent \$245,894,100. The effects of the proposed increase in Growler flights on decreasing tourism must be addressed in the DEIS. #11 - ALL the scenarios in the EIS assume an increase in Growler training. The EIS presents no real alternatives of "no harm" to citizens. No compelling reasons have been given that indicate that the present training area is the only alternative. The three alternatives given are relatively minor variations on the same theme, all with similar adverse environmental consequences. The DEIS is therefore deficient at the most fundamental level in not addressing concerns of citizens to reduce impact on humans, wildlife and the environment.

Nordland, WA 98358

I am voicing my concerns regarding the US Navy's proposal to increase EA-18G "Growler" Airfield Operations at NAS Whidbey Island Complex. The Navy is proposing an increase from 91 hours to 640 hours a year. Increasing activity six-fold will amplify their impact tremendously. We have invested our entire life savings in building our vacation/retirement home at [REDACTED] Road on Marrowstone Island, so there is a great deal at stake for us. The reason we are moving there is that it is quiet. Our mental and physical health is contingent on a quiet place to retreat to. It is clear, from our short-term exposure to the Growler activity in 2014 when we first purchased the property, that the noise is unacceptable. The intensity of even one Growler flight let alone the proposed increase of flights is not compatible with the reason why most residents live on Marrowstone Island. Many comment, even on Nextdoor Marrowstone in their member profiles, that the reason they live there is for the quiet. Many of these residents have previously lived in the Seattle area or other large centers in other states, coming to the island for the quiet environment it affords. Many tourists come to the island and the Olympic Peninsula for a respite from the noise and stress of their lives.

1.a. Thank You

12.h. Tourism

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

4.l. Points of Interest

4.r. Nonauditory Health Effects

greenbank, WA 98253

The rumbling of planes for hours most days for over a month now, has my nerves stretched tight. This is not good for my Lupus. My skin has not been this bad in 10 years. My joints have started to get involved. It's been a LONG time since I've had joint issues. We knew about the base when we bought here. We were careful to buy outside the navy 'noise area'. When the growlers arrived we were lied to about the noise levels. Now there is water pollution in the Coupeville area from navy fire retardant. The growlers must go. OLF must be closed. Since the growlers became an issue, the navy has been a very bad neighbor. Not listening to or taking seriously our complaints. I'm so disturbed over this issue, I'd be glad to see the whole base closed.

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 2.e. Public Involvement Process
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.r. Nonauditory Health Effects

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Fill in and mail with comments to:
EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

1. First Name _____

2. Last Name _____

3. Organization/Affiliation LOPEZ ISLAND COMMUNITY MEMBER

4. City, State, ZIP LOPEZ ISLAND, WA 98261

5. E-mail _____

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "if a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion."

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

12. Add your own comments here:

Items No. 6, 7, 9, & 10 are of particular importance to me as a resident of Lopez Island in San Juan County, a part of the San Juan Islands National Monument & as such a natural area set aside for recreation for millions of US citizens & residents.

01/08/16

www.QuietSkies.info

Thank you,



1.a. Thank You
12.n. Quality of Life

Coupeville , WA 98239

Hello I am a resident of Coupeville and hope the Navy and the residents near the OLF can come to an agreement regarding the increased Growler flights. I have loved in my home 17 years , the Prowlers were tolerable , and amazing to watch. The Growlers are another story. They fly lower , are louder and more frequent. I cannot even be in my home. I do not think ending the flights is the answer. But it is my sincere hope a mutual agreement can be found that would allow the training needed for the pilots but also keep the integrity of our beautiful community.

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to: EA-18G EIS Project Manager NAVFAC Atlantic Attn: Code EV21/SS 6506 Hampton Blvd. Norfolk, VA 23508

- 1.a. Thank You
12.a. Socioeconomic Study Area
12.h. Tourism
12.j. Property Values
2.c. Compliance with the National Environmental Policy Act
2.e. Public Involvement Process
2.f. Use of Public Comments
2.k. Range of Alternatives
2.n. Alternatives Considered But Eliminated
4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
4.c. Advanced Acoustic Model
4.d. Day-Night Average Sound Level Metric
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4.g. Average Annual Day/Average Busy Day Noise Levels
4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
4.j. Other Reports
4.r. Nonauditory Health Effects
4.t. Noise Mitigation
7.h. San Juan Islands National Monument

1. First Name [redacted]
2. Last Name [redacted]
3. Organization/Affiliation human/mother/For the Wild
4. City, State, ZIP Lopez Island, WA 98261
5. E-mail [redacted]
6. Please check here [X] if you would NOT like to be on the mailing list
7. Please check here [X] if you would like your name/address kept private

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.

Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).

2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.

Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.

3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.

Action: Redo the noise simulation using the more recent Advanced Acoustic Model.

4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.

Action: Noise levels should only be averaged over active flying days.

5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.

Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."

6. The Draft includes some independent noise measurements and ignores others.

Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

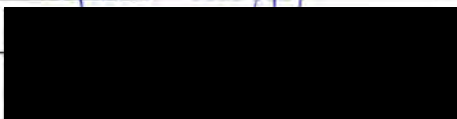
- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

Your prompt attention to these comments is appreciated.

The wellbeing of future generations is at stake
 yours truly,



Coupeville, WA 98239

Greetings. This is the second written comment form I have submitted. My concerns and worries remain the same. I could add to the concerns - this time. Number one concern is safety. I have read the EIS documents. I have attended the scoping presentations. I have asked questions. What I understand is the increase in flight operations due to the increase in numbers of the Growler aircraft could be 34,500 per year. Is this correct? I worry about highways, homes, play fields, schools, hospital, our community. With that type of increase - and with this aircraft - it seems to me a tragic accident is, due to frequency of flights and training, new pilots, defects in the aircraft - a real possibility. As a parent, as a family member, as a community member we cannot take that chance. This area's population and number of homes has increased dramatically the past decade. I'm also extremely concerned about our water supply. I am still in shock - that we have homes in our community that now cannot use their water; they cannot drink the water, they cannot bathe, they cannot water their garden. So their home becomes - a loss. These people no longer can live in the place they call home. A place they wanted to grow old in. To have family gatherings. Holidays. This is not right. I have never heard how the US Navy plans to take care of the affected homes. It is not as simple as delivering bottled water. There needs to be a plan. And lastly - the noise. We learned this week that the state board of health, for Washington, has stated that yes extreme noise does affect our health - "increasing evidence that noise exposure is associated with annoyance, sleep disturbance, cognitive impairment and adverse cardiovascular outcomes." I know first hand. I have physically experienced the negative consequences of the Growler engine loud loud noise. I know you have heard it, over and over, you have heard many personal stories from community members - how the extreme loud noise from the Growler has affected our personal health. Please - delay the decision to move the additional Growler aircraft to NAS Whidbey. Thank you for listening.

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.n. Quality of Life
- 4.m. Supplemental Metrics
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 5.a. Accident Potential Zones

Coupeville, WA 98239

Hello - I live in Coupeville. I am a mother. I have attended every Scoping presentation held at the local high school. At each presentation I enter the facility with interest to learn and to express my questions and concerns. Every time I have gone I leave more confused than satisfied with the communications. My two areas of most concern are 1) safety for our area - which includes aircraft safety over our communities, schools, playfields and places of business and recreation. and 2) hearing loss. What i have trouble understanding is how the Navy provides information about the decibel strength of the growler aircraft, the length of specific decibels, the intensity of the aircraft vibrations. Every time I ask questions, or view the data, I still do not understand how you conduct your scientific findings and recordings of noise level. Modeling software is not real life. From what I understand your studies have never, never, actually measured a Growler at 150-200 ft over an area. I can tell you it hurts. even in my house. It awakens me, It scares my animals, it agitates my body. I respect the military and the sacrifices made for our country. But the noise, and the potential of more noise as the growler numbers increase, will not be healthy for our community. I worry for Whidbey Island. Please understand what we are really experiencing - and not from modeling software. But real people, Real hearing loss, Real reactions to loud noise.

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 5.a. Accident Potential Zones

1.a. Thank You
12.e. Agriculture Analysis

Langley, WA 98260

I am troubled that the overall Whidbey Island Growler impact will drive local farmers and agriculturalists away from the island. And of course, their increased activity is hard especially on young children. Please, no more Growling



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name [REDACTED]

2. Organization/Affiliation _____

3. Address [REDACTED], LOPEZ

4. E-mail _____

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

This meeting is a ridiculous travesty,
The navy isn't doing anything
except playing silly games &
pretending to listen to us.

Please print • Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 2.e. Public Involvement Process

Lopez Island, WA 98261

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
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- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
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- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared. 12. I understand that the EIS will be assessed and possibly approved by the Navy itself. This obviously creates a conflict of interest that invalidates the whole process. Action: To assure public confidence in the legitimacy of the EIS, provide for an independent expert to assess the accuracy of the final document.

Coupeville, WA 98239

Thank you for considering my comments. Coupeville is where I live, raised my daughter, and work. I own a small real estate firm, and am active on both the Chamber of Commerce Board and Coupeville Historic Waterfront Association Board. I love Whidbey Island, and the Ebey's Landing Historical Reserve, and am proud of our reputation as a great place to live, and a wonderful tourist destination. The Growlers are experienced differently than the Prowlers were as they roar and rumble overhead when coming in for a landing, taking off or banking along the flight path. I owned a home in the Admirals Cove neighborhood prior to the switch in aircraft, which we had all been told would be quieter. A descending aircraft registering 102 decibels registers quite the alarm in one's body and spirit when you are simply trying to live your life, teach your child, sleep peacefully, or enjoy your home. I believe that our Navy pilots and navigators deserve the best possible training before they are sent on missions. I am not "anti-Navy" and have friends and many clients who are Navy personnel and families. I think that we have been living with the current level of jet noise, even though it seems excessive at times, is what I have adapted to. I moved to an area outside of the flight path, and chose to take a loss on my investment. But I know many of the 600+ homeowners in Admirals Cove can likely not afford to do that. When kids are playing baseball at Rhododendron Park and are not cautioned to use ear protection, even though your guidelines would require it of your staff, or when the pool at Admirals Cove is cleared in 15 minutes on a warm summer day because the planes begin flying directly overhead, and everyone has their hands over their ears, that community life could be more important to the Navy in making decisions. As a realtor, and small business owner, I do believe that the public health and real economic costs to Coupeville will be quite high if the OLF flights increase. There are already higher end homes that have not been able to sell, even at a loss, because of the current level of jet noise, as prospective buyers are worried about ability to re-sell in the future. I am hoping sincerely that you will listen to the voices of those who both support the Navy, but also care deeply about preserving the quality of life in our community. Thank you, [REDACTED]

- 1.a. Thank You
- 12.j. Property Values
- 12.n. Quality of Life
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017
SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name [Redacted]
2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
[Redacted] FARM
3. Address [Redacted] Coupeville, WA 98239
4. Email [Redacted]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.k. Compensation to Citizens for Private Property
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.f. Field Carrier Landing Practice Operation Totals
- 3.g. Field Carrier Landing Practice Evolutions and High Tempo
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquifer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

- 1) If I am required by OSHA or Washington State L&I to provide annual hearing tests for my employees as a result of the increased noise over my agriculture fields, will the navy or DoD reimburse me for the cost of this testing?
- 2) If my well water tests show levels of PFOA and/or PFOS, will the navy or DoD cover the cost for treatment of my well water so I can continue to farm on my land?
- 3) Do the operational numbers provided for the various alternatives and scenarios represent maximum-likely, near-, median or some percent of likely operations require to fulfill training necessitated by the alternative/scenario?

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name _____

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)

3. Address _____ *COUPEVILLE, VA 98239*

4. Email _____

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

- 1) Given the current ground water contamination with perfluoroalkanoic acid and perfluoroalkane sulfonates which are used in the navy's fire fighting foam, what provisions are being made to eliminate future contamination should an accident occur at the OLF which requires fire suppression? The proposal to fold possible increase in activity elevates such a risk.
- 2) What are the navy's plans for remediation of the ground water contamination at the OLF?

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

Coupeville, WA 98239

If the Growlers practice increases at OLF Coupeville, my neighbors and I will feel we are being attacked. We may be forced to leave what has been proposed as the "crash zone." With the huge increase in the number of flights we will suffer hearing loss and our lives will be totally disrupted. When alternative areas are available where populations do not exist I believe we are being designated by the Navy as unimportant and "expendible." As a taxpayer my whole life who pays for the Navy, I certainly hope that the final EIS will be adjusted to accurately portray the devastating effects that extended Growler flights will cause me and my neighborhood. Growlers do not belong in populated areas.


- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.d. General Project Concerns
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.k. Range of Alternatives
- 4.q. Potential Hearing Loss
- 5.a. Accident Potential Zones

Draft Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by January 25, 2017


Online at: www.whidbeveis.com

By mail at *Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS*

1. Name 

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)

resident

3. Address  *Cape WA*

4. Email *98239*

5. Phone *on air list already*

6. Please check here if you would NOT like to be on the Coupeville Community Allies email list

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.h. Tourism
- 12.i. Housing Access and Affordability
- 12.j. Property Values
- 12.m. Education Impacts
- 12.n. Quality of Life
- 13.a. Environmental Justice Impacts
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children
- 7.a. Regional Land Use and Community Character

Comments

Check all that concern you. For additional information see www.facebook.com/whidbeveis

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. Increasing OLF operations by 36 % to 475%, with up to 135 flight operations daily, will double the residential areas and increase by 10-fold the commercial areas impacted by noise. **This is a burden greater than the Coupeville/Central Whidbey community can bear.**

Increased operations at OLF risk greater aquifer and well contamination. Wells near OLF have now found to be contaminated with toxic PFOA compounds from Navy firefighting foam which the Navy continues to use for aircraft fires. The extent of contamination has not been determined nor have results been shared with the community. There is no mitigation plan in place.

The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.

- The Navy did not adequately look at siting new Growler aircraft elsewhere, despite this being the #1 request from the community during the Navy's prior scoping forums.
- An additional 880-1,574 personnel and dependents would severely impact our tight housing market, decreasing the already low stock of affordable housing on Whidbey Island.
- Single-siting Growlers at NASWI presents a major terrorist risk to our Island, which is served by one bridge and two ferries. All active electronic warfare jets in the US Military would be at NASWI.
- The Growlers are at risk for more mishaps and crashes due to problems with their onboard oxygen system that can cause pilot hypoxia, with over 100 incidents in all F/A-18 airframes in 2015 alone. Increases in OLF operations increase the risk of crashes on Whidbey Island and in Puget Sound.

Please include any additional comments here:

What else you can do

1. **Get involved.** To volunteer, email us: coupevillecommunityallies@gmail.com
2. **Call (best) or email your elected officials and share your concerns.** The number of calls are important.
 - a. U.S. Senator Patty Murray: 206.553.5545; www.murray.senate.gov
 - b. U.S. Senator Maria Cantwell: 425.303.0114; www.cantwell.senate.gov
 - c. U.S. Congressman Rick Larson: 800.652.1385; rick.larsen@mail.house.gov
 - d. Governor Jay Inslee: 360.902.4111; governor.wa.gov

To Learn More

- ✓ To receive email updates, or to get involved, **email us** at coupevillecommunityallies@gmail.com
- ✓ **Follow us on Facebook at Coupeville Community Allies**
- ✓ Review the Draft EIS and appendices at www.whidbeyeis.com

All comments submitted by January 25, 2017 will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

Lopez Island, WA 98261

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared. 12. I understand that the EIS will be assessed and possibly approved by the Navy itself. This obviously creates a conflict of interest that invalidates the whole process. Action: To assure public confidence in the legitimacy of the EIS, provide for an independent expert to assess the accuracy of the final document.

1.a. Thank You

Anacortes, WA 98221

I have lived in Anacortes since Dec. 1988, & have been around this area since 1954. My wife & I, fully support Whidbey Isl.NAS, and love to see the Growlers flying over our home. To us, IT IS THE SOUND OF FREEDOM!! May God bless you all!

Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:
EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name _____

2. Last Name _____

3. Organization/Affiliation _____

4. City, State, ZIP Lopez Island, WA 98261

5. E-mail _____

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
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- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

The unnecessary disrespect to civilians and sea life is highly unusual.

Olga, WA 98279

I agree with all of the following Comments and would like to see them address prior to any decisions. 1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the

- 1.a. Thank You
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- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

Coupeville , 98239

1.a. Thank You

4.r. Nonauditory Health Effects

Expanded flight operations significantly increase the likelihood of adverse health effects from noise and low frequency sound.

Coupeville , WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

The growler expansion DEIS does not address the current water contamination to OLF area residents and future contamination with expanded flight operations.

Coupeville , WA 98239

1.a. Thank You
11.d. Per- and Polyfluoroalkyl Substances

Water contamination from fire fighting foam to sole source aquifer is not adequately addressed in the DEIS.

Coupeville , WA 98239

The DEIS did not address actual noise measurements, the noise modeling used is outdated and noise averaging inappropriate. The NPS shows noise levels far in excess of that predicted by average modeling.

- 1.a. Thank You
- 4.a. General Noise Modeling
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation

Coupeville , WA 98239

- 1.a. Thank You
- 5.a. Accident Potential Zones

The DEIS does not adequately address crash frequency and jet impacts as well as the crash impact zone which is not set to DOD code.

1.a. Thank You

Coupeville , WA 98239

I would like to support the Navy any way I can with it's Growler program

Coupeville, WA 98239

The two most dangerous aspects of flying are the approach, landing and takeoff — in other words most of the OLFC flight path. The risks are significant (a) because of unrestrained and major encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of FCLP standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes exacerbated by the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs to a suitable 21st century off-Whidbey site.

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Coupeville , WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the related past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of the impacted wells. Leakage of PFAS in storage or their use in a crash event is a hugely relevant environmental impact that must be addressed. And the public must be given the opportunity to comment.

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Chemical compounds used as flame retardant foam have contaminated private and public drinking water wells near OLF. Contamination to the aquifer is not adequately addressed in the DEIS.

Coupeville, WA 98239

1.a. Thank You
12.j. Property Values

Our concern is the decrease in private property values due to the added/increased noise.

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Firefighter training and the use of AFFF has contaminated our local aquifer and private wells in our neighborhood. We have neighbors who have witnessed the Navy using the AFFF FOAM THAT HAS CONTAMINATES, on the OLF runway and surrounding areas within the past five years.

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Expanded flight operations significantly increase the likelihood of future use of toxic flame retardants and additional water contamination. The possibility of further contamination to the aquifer is not adequately addressed in the DEIS.

1.a. Thank you

Coupeville, WA 98239

I fully support EA18 Growler operations at NAS Whidbey. I recognize the vital function this aircraft serves and the role NAS Whidbey plays in the readiness of this aircraft. I also see the enormous economic value of having this aircraft based here on the island. I feel the noise produced is a very small price to pay for freedom of country and the economic vitality of our island. Keep America strong, keep Whidbey strong! Thank you, [REDACTED]
[REDACTED]

Clinton, WA 98236

- 1.a. Thank You
- 2.k. Range of Alternatives

While I believe that it is important for the Navy pilots to have training, in reading the EIS, it is clear that the Navy has simply outgrown the OLF. It made sense in World War II, but as the jets have increased in number of flights and in their technological/environmental footprint, the OLF is not appropriate anymore.

Lopez Island, WA 98261

We live on the south end of Lopez, across the strait from the NAS. We have growlers flying in low formation overhead, and are subjected to the runups - the noise from both is overwhelming. We can feel the vibration deep into our bodies. I believe there are many alternatives to the Growlers that do not damage the lives of our citizens who fund our military. 1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

1.a. Thank You

Freeland, WA 98249

Please find a solution to the Growler noise problem that will be fair to our entire community

1.a. Thank You

Freeland, WA 98249

EIS Comment February 2017 In 1954 my grandparents took me to the Navy - Stanford game in Palo Alto CA. Their good friends' son was a star player for Navy. It was a great game and was won by Navy. From that time on, I have been a Navy supporter. After the game, [REDACTED] gave me a blue and yellow flag/banner that said GO NAVY. The banner remained a treasured part of my room for many years. I am now an Army Vietnam Vet but I have always been a Navy fan. Fast forward many years. I have now been a resident of Whidbey Island for almost fourteen magical years. A bit of that magic is being challenged by the current controversy over the Growlers - specifically over the noise they create. It is a problem that is fast becoming an even bigger problem and requires a solution. Those who recognize the problem range from "get the Navy off the Island" to "get the Growlers off" to "get/keep the new Growlers off" to those desperately seeking a balance somewhere between the extremes. The majority of those not recognizing the problem describe the Growler sound as the sound of freedom and consider anyone not in agreement as anti Navy. The atmosphere then becomes increasingly toxic and lacking in civility. Any solution becomes not just elusive but nearly impossible. But I remain an optimist. The old optimist pessimist story still gives me hope. Looking at a large barn bursting with muck, the pessimist doubted that the muck could be cleaned out in 1000 years. The optimist looked, smiled and said, "With that much muck, there must be a pony in there somewhere." Let's look for the pony! Let's acknowledge the problem - Growler noise. Let's look for a solution. Let's look at all the information and comments and listen to all of it. Let's gather a representative, manageable group. Let's factor in our advanced computer technology, our engineering technology, our mapping ability, our risk management skills, our stealth technology, our satellite technology, our drone technology and our knowledge and concern for the environment. Let's calmly and creatively and civilly find the pony. But let's get it right. Let's make it right. We are all in this together. February 2017 [REDACTED]

Coupeville, WA 98239

1.a. Thank You
12.c. Socioeconomic Impacts

My wife and I have lived in the noise zone for OLF Coupeville (the ledgewood beach area) for more than 30 years. We recognize operations at the Coupeville bounce field as part of life in central Whidbey and support continued expanded use of the field. The Navy has been, and continues to be a good neighbor which contributes a great deal to the economy of Whidbey Island. I want them to stay! Noise from the Growler practice at OLF Coupeville is a minor inconvenience.

Anacortes, WA 98221

1.a. Thank You
4.t. Noise Mitigation

WE DO NOT SUPPORT ANY EXPANSION OF ACTIVITIES AT NAS WHIDBEY UNTIL
AND UNLESS CURRENT NOISE ABATEMENT PROCEDURES ARE IMPROVED.
PLEASE SEE OUR DETAILED LETTER POSTMARKED 2/22/17.

Anacortes, WA 98221

1.a. Thank You
4.t. Noise Mitigation

WE DO NOT SUPPORT ANY EXPANSION OF ACTIVITIES AT NAS WHIDBEY UNTIL
AND UNLESS CURRENT NOISE ABATEMENT PROCEDURES ARE IMPROVED.
PLEASE SEE OUR DETAILED LETTER POSTMARKED 2/22/17.

February 20, 2017

- 1.a. Thank You
- 2.I. No Action Alternative
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.t. Noise Mitigation

To: Growler EIS Project Manager

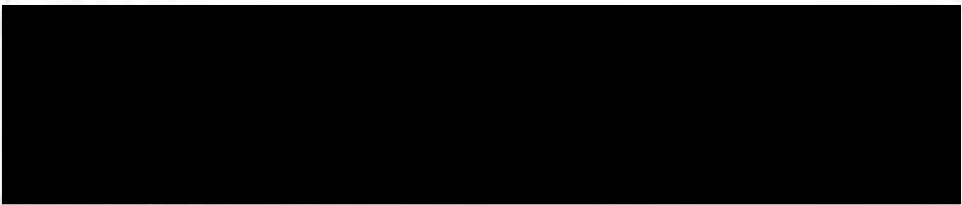

Dear Sir or Madam,

We DO NOT SUPPORT any expansion of activities at NAS Whidbey until and unless current noise abatement procedures ARE IMPROVED.

Noise is clearly the public stakeholders' biggest concern (Table 1.9.5). The EIS is voluminous and detailed on this subject. It takes into account numerous studies of different aspects of the noise issue from technical, social and demographic points of view as well as others. However, the very most fundamental condition (the No Action Alternative) is not given nearly the attention it deserves in these circumstances. Therefore any conclusions based on the comparison of alternatives is flawed. To correct this flaw the study must go back to the very beginning of its work and reevaluate the merits of this alternative in terms of present day circumstances. These circumstances include the number of planes Congress might approve today versus 5 or more years ago all the way to the other end of the scale that weighs the number of FCLPs a pilot needs before starting actual carrier landings.

A second point we would like to make regards the "acceptable" or "target" decibel levels addressed at great length in Section 4 and elsewhere in the study. Our personal experience has been that the upper end of the range is exceeded on a much more frequent and dramatic basis than the study suggests. Were these events captured properly, we can't help but believe your conclusions with respect to alternatives would be changed. We will be looking into installing our own monitoring system but understand that it could only provide anecdotal information compared the data you might collect at our location on Mt. High-G, approximately five miles north of the base and very definitely within your flight patterns. We invite you to consider establishing a data collection site on our property if you agree it would provide information to strengthen your conclusions.

Very truly yours,


Anacortes, WA 98221 

Bellingham , WA 98225

I highly object to the growler planes on Whidbey Island and the Olympic Peninsula. They dramatically damage the camping experience at Deception Pass. I have a friend on Lopez Island who's home is massively disrupted multiple times per day by the growlers. It would be tragic to deafen (kill) the wildlife and other residents of the Olympic National Park with war games in the western part of the park. It is a colossal waste of resources/oil and inconsciencible amount of noise and air pollution to run the growler program. The growler program should be scaled down.

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

4.q. Potential Hearing Loss

6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)

7.d. Recreation and Wilderness Analysis and Study Area

7.i. Deception Pass State Park and other State Parks

Olympia, WA 98502

1.a. Thank You
9.a. Consideration of Tribes

Please do not proceed with the Growler Airfield Operations training over the Washington coast and Olympic National Park. It is disrespectful to the native american tribes, the environment and all of us who LOVE playing outside.

1.a. Thank You

Mount Vernon, WA 98274

My wife and I have lived for over 30 years at [REDACTED] Mount Vernon, WA 98274 and routinely see and hear the Navy jets flying over our property. My grandparents owned the property before I purchased it. We strongly support the addition of the EA-18G Growler jets to NAS Whidbey. The Navy first and foremost defends our countries freedom and secondly is a strong contributor to our local economy. I am also a small business owner in Mount Vernon welcome the additional business the Navy brings to Skagit and Island Counties. The noise the jets produce as my father, a proud WWII Navy veteran would tell me is "the sound of freedom"

, WA 98103

The Olympic Peninsula, including the national park and the national forest are treasures for us all. Clearly the peace and beauty of the area would be terribly compromised if the military were to undertake "war games". This in addition to the impact on the lives of residents in the area and the obvious additional environmental degradation resulting from a phenomenal use of jet fuel. War games would scar the peninsula terribly, discouraging great numbers of visitors, hikers and others from enjoying the area. Please reject this proposed activity.

1.a. Thank You

12.h. Tourism

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

19.e. Naval Special Operations EA

6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)

7.d. Recreation and Wilderness Analysis and Study Area

Seattle, WA 98103

I oppose a Growler Airfield on Whidbey Island. Growler planes can produce 150 decibels of sound, enough to cause instantaneous hearing loss. (110 db is the threshold for permamant hearing loss). In both humans and wildlife, effects from loud noise include hearing loss, increased stress hormones, cardiovascular disease, immune system compromise and behavioral/psychosocial impacts. Ground equipment for the planes emit intense electromagnetic radiation associated with all kinds of other health concerns. 1 billion birds (already threatened by climate change) fly up and down the pacific coast using it to navigate. This will cause harm to those birds. The Navy's own supporting documents say: "Friendly Electronic Attack could potentially deny essential services to a local population that, in turn, could result in loss of life." But most important from a climate perspective, each jet burns 1304 gallons PER HOUR and produces 12.5 metric tons of CO2 per hour! Just for perspective that is 23% more than the ANNUAL CO2 emissions of a WA state citizen! We have to address climate change now and these planes are too CO2 expensive to be putting in our area or anywhere for war games. No No No. It will impact the area in a very negative way, a negative way for the wildlife and the human populations

- 1.a. Thank You
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.l. Bird Migration
- 18.b. Average Carbon Dioxide per Aircraft
- 19.d. Electronic Warfare
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Anacortes, WA 98221

I live on South Fidalgo Island, and I support the Navy and its training facility on Whidbey Island. What I do not support is loud jet noise a) directly over Deception Pass Park and b) after 10pm. Please follow guidelines for flights to avoid our State Park, which is one of the most beautiful and pristine gems of the Pacific Northwest. Growlers should not be flying over Deception Pass Bridge or the hiking/camping areas. And thank you in advance for ending flights before 10pm. I recognize that this does not give much opportunity for night training during the summer; however it is a necessary compromise with citizens who need their sleep.

- 1.a. Thank You
- 4.p. Sleep Disturbance
- 4.t. Noise Mitigation
- 7.i. Deception Pass State Park and Other State Parks

Portland, OR 97219

The area you plan to use for war games is an area treasured by vacationers and tourists, and no doubt residents, for its beauty and restful quiet. Growlers and war games would destroy that. In addition, these plans will once again burden native American lands. Haven't we caused them more than enough grief? Please reconsider your siting. Surely you can manage to construct a less destructive plan for such games. Thank you for your attention!

1.a. Thank You
19.d. Electronic Warfare
2.k. Range of Alternatives
9.a. Consideration of Tribes

1.a. Thank You

Victoria, British Columbia V9A 2B8

Keep up the great work, thank you for your service and diligence in maintaining proficiency. Cheers, [REDACTED]

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017
SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name [Redacted]
2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
RESIDENT
3. Address [Redacted] Oak Harbor
4. Email [Redacted]

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 10.b. Biological Resources Impacts
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 3.d. Arrivals and Departures
- 3.d. Arrivals and Departures
- 4.m. Supplemental Metrics
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.b. Overtasking/Overloading of Air Traffic Control at Ault Field and Elsewhere

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- Outdoor recreation limits, as well as children’s and family’s health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy’s prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017.
SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
By mail at: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name [Redacted]

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
resident citizen nonprofit

3. Address [Redacted] *Oak Harbor, VA 22027*

4. Email [Redacted]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

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- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 10.b. Biological Resources Impacts
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
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- 12.i. Community Service Impacts
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- 2.e. Public Involvement Process
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- 2.n. Alternatives Considered But Eliminated
- 3.d. Arrivals and Departures
- 4.m. Supplemental Metrics
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- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.b. Overtasking/Overloading of Air Traffic Control at Ault Field and Elsewhere

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

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Seattle, WA 98106

I am appalled that you even think of approving war "games" of this magnitude on the Olympic Peninsula! The reasons- -extreme sound pollution leading to hearing loss -unannounced closures of Olympic Natl Park affect those; who depend on tourism for their livelihood as well as disappointed vacationers. -Harm to the 1 billion birds who migrate through this area -each jet burns an unconscionable amount of fuel and emits more CO2/ HOUR than a WA state citizen does in a YEAR. Please. This cannot happen to our beautiful state. I urge you to drop this idea! The benefits just cannot outweigh the disastrous consequences.

1.a. Thank You

10.a. Biological Resources Study Area

10.i. Bird Migration

18.b. Average Carbon Dioxide per Aircraft

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

4.q. Potential Hearing Loss

Shoreline, WA 98177

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP)

Bellevue, WA 98004

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

It's bad enough that the sound level measurement system is totally un realistic, (the people pondering this decision should be forced to conduct their meetings under the flight path of the Growlers), the potential damage to groundwater is also a very serious issue and also requires more study.

Bellevue, WA 98004

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

It's bad enough that the sound level measurement system is totally un realistic, (the people pondering this decision should be forced to conduct their meetings under the flight path of the Growlers), the potential damage to groundwater is also a very serious issue and also requires more study.

Lopez Island, WA 98261

1.a. Thank You

4.r. Nonauditory Health Effects

I am a US Navy vet. I came to Lopez Island to live out my life in peace and quiet surrounded by magnificent natural beauty and a wonderful community. I also have Misophonia, an auditory disorder where certain noises cause extreme emotional distress. The nerve shattering noise from the Growlers practically brings me to my knees. The EIS is a weak and greatly flawed attempt to justify the continued operations and planned expansion of the growler program. I feel I am under assault and am being betrayed by the very Navy I served. I invite you to come spend the day with me during a round of carrier landing exercises and experience and record accurately the eardrum crushing disturbance imposed by these activities.

1.a. Thank You

Oak Harbor, WA 98377

I fully support the military flight operations on Whidbey Island. We have lived here for 12 years, and they fly over my home and my child's school daily. We consider it a great blessing to be in their presence.

Coupeville, WA 98239

1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects

Dear Sir or Madam: Thank you for extending the comment period on this draft environmental impact statement. The above-referenced draft environmental impact statement (DEIS) gives insufficient consideration to the detrimental effects of noise on children's learning, despite the fact that the Wyle Aircraft Noise Study (DEIS Appendix A) recognizes these effects: "While there are many factors that can contribute to learning deficits in school-aged children, there is increasing awareness that chronic exposure to high aircraft noise levels may impair learning. This awareness has led WHO and a North Atlantic Treaty Organization (NATO) working group to conclude that daycare centers and schools should not be located near major sources of noise, such as highways, airports, and industrial sites." [DEIS at p. A-176; emphasis added.] Substantial research has been done on the impact of high noise levels from aircraft and other sources on children's learning (and health), and there is a growing consensus in the scientific community that such noise adversely affects academic performance. For example, Cohen et al. (American Psychologist 35(3):231-243, 1980) found that children from noisy schools had higher blood pressure, were more likely to fail on a cognitive task, and were more likely to give up. Students in the study were exposed to peak noise levels as high as 95 dB, similar to peak noise levels shown for Whidbey Island schools in Chapter 4 of the DEIS. A later study by Hygge et al. (Psychol. Sci. 13(5):469-474, 2002) found impairment of long-term memory and reading in noise-affected children. In a 2008 review, Clark (Performance: 9th International Congress on Noise as a Public Health Problem (ICBEN) 2008) stated that "evidence for the effects of noise on children's cognition is strengthening . . . with over twenty studies having shown detrimental effects of noise on children's memory and reading." Significantly, Clark points to "a linear exposure-effect relationship between chronic aircraft noise exposure and impaired reading comprehension and recognition memory, after taking a range of confounding and socioeconomic factors into account." A 2013 review of more than 80 studies (Klatte et al., Front. Psychol. 4:578, 2013) found that noise exposure impaired children's abilities in speech perception, listening comprehension, short-term memory, reading, and writing. The authors state that these effects "have to be taken seriously in view of possible long-term effects and the accumulation of risk factors in noise exposed children." Not one of the studies reviewed by Klatte et al. is cited in the DEIS (Ch. 7). In view of the large body of research showing harmful effects of aircraft noise on learning, the EIS must give greater attention to noise levels in schools, and in areas around schools where these children live and study, preparing for their school day, including a frank discussion of the documented effects. Mitigation measures must also be discussed as required by the applicable regulations (40 CFR §1502.14(f); 40 CFR §1502.16(h)).

1.a. Thank You

Eastsound, WA 98245

To whom it may concern-I am deeply concerned and worried about the Navy's proposed exponential increase in Grouper numbers and activities on and in proximity to Whidbey base.I live on Orcas Island and have already been alarmed by current fly overs.Please do not increase the number of Grouper. Sincerely, [REDACTED]

Oak Harbor, WA 98277

As a property owner and later resident of greater Oak Harbor since 1981, I have had a chance to observe the ebb and flow of NAS Whidbey operations from a civilian perspective. This would include periods from when the base was nearly closed to where we are today. Even though we appear to be beyond the decision, I still question the logic of concentrating more aircraft in a community whose only land access is heavily dependent upon one aging, CCC era bridge. The decision suggests favoring advice of accountants over military strategist and relies upon tolerant communities to continually to do more. Earlier this week, I sent a letter to our local Island County Commissioners expressing my disappointment over two representatives' decision to veto a "Green Grant" to neighboring Coupeville as an act to punish a community for their anti-Navy activism while frequently citing terms such as; "Navy Partners" and hiding behind a published Mission Statement and Guiding Principles riddled with quality terminology. Their behavior appears to be inconsistent with key Advanced Quality tenants such as; respecting the opinions of all parties they represent, dispelling an adversarial climate and fostering collaborative solutions. For a considerable time, I have also thought the Navy is missing an opportunity to become a recognized leader solving major problems with the community through advancing AQS principals. Collaborative problem Identification, accurate and verifiable measuring tools and problem resolution all appear to be missing in an effort to introduce more aircraft to our community. This process would start with identifying problems such as; Noise, Pollution and General Impact on the Community. Verifiable and measurable criteria are necessary as it does little good to measure noise if much of the public does not accept your data as anything other than manipulated. When a departing base commander chose to fly all base aircraft as part of a ceremony and jets occasionally roar at full throttle low over my roof from Ault Field, am I to conclude this is necessary Navy purpose or perhaps an undisciplined twenty year old with the equivalent to the keys to dad's Ferrari? Are aircraft idling on the tarmac for hours necessary Navy purpose or lack of adequate facilities? Is there a culture at the bases of operation that while noise in many cases is necessary, it is also an unwanted attribute? Does the Navy consider the noise footprint that has impact as far north as Bellingham and the San Juan's, west to Port Angeles and east through Cascade valleys and on to low level flights over lakes in Eastern Washington may not be entirely welcome or completely viewed as necessary Navy purpose? When you are in places around the bases of operation under specific weather conditions, the thick smell of partially combusted, carcinogenic jet fuel permeates the air. Is the only plausible solution to do as some would suggest, move? When I'm bicycling along our rural roads and see the preponderance of discarded beverage containers and discarded household items on vacant lots, is it reasonable to believe this the behavior of the complete community or more likely largely contributed by transient, minimally invested, young personnel that are routinely assigned to our small community? The Navy solicits comments from the public and appears to habitually and readily disregard them in jest citing the ignorance of Navy operations and purpose. Use of Hush Kits and more reliance on simulators are easily dismissed for these reasons. Does every new pilot need a jet performing at maximum capacity on day one? What if Hush Kits could be easily installed and removed, as needed? Does the Navy have a sensitivity training program for all personnel on how to be a good community guest? Do

- 1.a. Thank You
- 14.d. Bridges and Ferries
- 2.e. Public Involvement Process
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.c. Military Training Routes
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.a. General Noise Modeling
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 6.a. Air Quality Impacts from Mobile Source Emissions (Jet Engine and Vehicle)

they realize that bad behavior by a few leads to resistance and unwelcome response to the entire organization? Has the Navy given consideration of working with the FAA to further restrict noise in the area from private aircraft? When you stand on a corner in downtown Oak Harbor and hear the preponderance of glass pack muffled vehicles, are these more likely possessions of retired Baby Boomers or young transient personnel who care less about the community, ignorant that added noise is the enemy? It is recognized that much of the above are potential solutions offered prior to problem identification and this is a common error in applying AQS. These are offered to demonstrate there are positive things that could be gained by applying AQS and CQI. Excluding some specific technology, it is hard to envision that reduced noise would ever be seriously considered as a design criteria for military hardware, especially if it compromises other needed performance attributes. It is more likely to expect that the next generation of replacement Growler aircraft will be more powerful and louder than the current model. That and increasing population are not going to make the Navy's task easier over time. It would suggest developing new and better methods of engaging community acceptance. I would never advocate that we seek to compromise our military's ability to vanquish enemies or protect personnel in order to be a better neighbor to base communities. It would appear the only plausible solution other than relying upon an increasingly tolerant community would be to view noise and other negative attributes of your presence as the target of CQI. Rather than offering, "...Pardon our noise..." as a behavior excuse, how about, "We are listening and improving daily and can prove it"? Rather than being a purveyor of undesirable attributes and community discord, NAS Whidbey Oak Harbor has the opportunity to become the, "Gold Standard" for being a good neighbor by applying AQS something I'm sure other communities would also appreciate. Please give serious consideration to my suggestions.

Coupeville, WA 98239

The noise from the current Navy planes is absolutely deafening at our home in Coupeville. If you are outside, you need to go inside because the noise is painful. You can't hear conversation inside when they fly over the house. Please do not allow the number of flights to increase! We are worried about the human residents, as well as the animals and sea life!

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Dec 19, 2016

CARST0001

Attention EA-18G EIS Project Managers -

1. We don't like Growler flight noise.
2. We don't want it to increase.
3. We don't like the presumed intended mission of the Growler; a world war III super power conflict in which there will be no winners.
4. We don't like the fact that your expenditure of billions takes bread out of the ~~hands~~ mouths of children and deprives them of drinking water, warmth, and secular public education.
5. We don't like the fact that the Navy disrespects us and disregards our complaints. Aren't we the people you are pledged to protect?
Whose Democracy are you defending?
- 90% of the public comment in the last EIS opposed Navy plans. The Navy pursues its preferred option anyway.
6. We don't like the fact that the Navy dumps fuel in Water and plans to discharge explosives in the Salish Sea. The fish don't like it either.
7. We don't like your sign. Freedom is not the sound of a jet's roar. That is the sound of terror, not freedom. You are confused.

- 1.a. Thank You
- 1.d. General Project Concerns
- 10.b. Biological Resources Impacts
- 10.l. Bird Migration
- 2.a. Purpose and Need
- 2.e. Public Involvement Process
- 2.j. Costs of the Proposed Action
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 6.f. Fuel Dumping

8. The roar of the Growler disturbs animals, both domestic and wild.
9. The Growler disturbs natural flight patterns of birds.
10. It disturbs newborn infants, the elderly, the sick. Does the Navy have no regard for these members of our community?
11. The collapse of civilized values sometimes begins with authority figures. We see this today in the military and police forces of America which begin to treat the public as if it were the enemy.

? Do you seriously think that the roaring tests of engines which can be heard over twelve miles away, day and night, over the course of an entire lifetime (since the 1940's), does us no harm?

Would you treat your Grandmother that way?

Sincerely,

[REDACTED]

please send copy of final report

[REDACTED]
[REDACTED]

Lopez Island, WA 98261

1.a. Thank You

Sequim, WA 98382

As a former Naval Hospital employee, I know many good and thoughtful folks are making decisions that impact others. I respect them and their job of keeping the US protected but I would like to point out that our pristine land and parks are possibly not the best place to practice warfare if other options are available. Please help in protecting these precious and rare sites and preserving them for all our children.

FREELAND, WA 98249

I request the Navy perform the necessary scientific analysis of just how noise relates to avian species that reside within the area currently under consideration. A number of threatened avian species will be impacted by the additional number of training flights and the increased noise of each training flight. The current draft EIS does not use current or scientific data or research. For example using ebird, which is NOT scientific data as scientific data is unacceptable. EIS statements must use credible data .

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 10.g. eBird Data
- 2.c. Compliance with the National Environmental Policy Act

Greenbank, WA 98253

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

10. Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of these wells. Leakage of PFAS in storage or use in a crash event is a hugely relevant environmental impact must be addressed and the public must be given the opportunity to comment.

Greenbank, WA 98253

8. The two most dangerous aspects of flying are the approach, landing and takeoff -- in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs to a suitable 21st century off-Whidbey site.

1.a. Thank You

3.b. Flight Tracks and Federal Aviation Administration Regulations

3.h. Runway Usage, Flight Tracks, and Altitudes

5.a. Accident Potential Zones

5.d. Environmental Health Risks and Safety Risks to Children

Greenbank, WA 98239

The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.

1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects

Greenbank, WA 98253

1.a. Thank You

4.q. Potential Hearing Loss

6. The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Greenbank, WA 98253

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

1. The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Greenbank, WA 98253

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

2. The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

Greenbank, WA 98253

1.a. Thank You
4.j. Other Reports

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. This misconception must be credibly revised to properly characterize the real impacts.

Greenbank, WA 98253

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Greenbank, WA 98253

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 5.d. Environmental Health Risks and Safety Risks to Children

Part of the Navy's rationale for continued use of the Outlying Field in Coupeville is that in the case of a crash, population density is less than Oak Harbor. Is my life worth less because I live and work in a less populated area? Are Coupeville schoolchildren worth less than Oak Harbor children, because there are less of them? Are we all expendable because the Navy will not consider practicing over unpopulated areas in Eastern Washington?

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name [Redacted]

2. Last Name [Redacted]

3. Organization/Affiliation RESIDENT

4. City, State, ZIP Lopez Island WA 98261

5. E-mail [Redacted]

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.
Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.
Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.
Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.
Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion."
Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name [REDACTED]
- 2. Organization/Affiliation Resident of Hedgewood Whidbey Island
- 3. Address [REDACTED]
- 4. E-mail [REDACTED]
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

118 jets will destroy our Island. The economy will be destroy. Life will not be what it is on this beautiful Island. Accident chance will increase what happens when a jet crashes in the summer - Kiss the Island good by in a fireball. Childrens - sleep and school will be disrupted. The beautiful sound in Whidbey will be destroyed by jet fuel being dump - The orcas

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 10.m. Impacts to Marine Species and Habitat
- 12.c. Socioeconomic Impacts
- 12.h. Tourism
- 12.i. Housing Access and Affordability
- 4.p. Sleep Disturbance
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children
- 6.f. Fuel Dumping
- 7.i. Deception Pass State Park and Other State Parks

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

Will Stop coming because of the fuel
And noise.

where ~~are~~ is the navy going to house
all the people needed to run all this.

Yes I knew there would be jet noise
on and off but not everyday
which will happen when ~~the~~ more jets
come.

Deception pass is the most visit place in
Washington but during the summer when
the jets are flying 50-100 times
ask for the money back and leave.
It will destroy our economy.

They say the noise is not that bad
come and try to work in my yard when
they are flying my dogs run in
side and hide under the table. Inside
my house it is impossible to talk to
and another because of the noise. And ledward
is supposedly on the outer edges of the
fly zone.

For more information, please visit the project website at whidbeyis.com

Please print

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Naval Facilities Engineering Command Atlantic

6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

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1. Name [REDACTED]

2. Organization/Affiliation Land owner

3. Address [REDACTED]

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

I would like to see real life Decible monitoring in more places and on private property in the ECLP pattern. Also closer monitoring of the real altitude of the planes over private property.

I am in favor of more use of OLF coupeville for the safety of the pilots and operations other than carrier practice at Ault Field.

The government could when the economy improves buy up more surrounding Areas or buy Air rights. This could be a solution to expanding the base and make

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 12.c. Socioeconomic Impacts
- 2.m. Record of Decision/Preferred Alternative
- 4.f. Noise Measurements/Modeling/On-Site Validation

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

A large training facility for the betterment
of our Armed forces



For more information, please visit the project website at whidbeyis.com

Please print
Please drop this form into one of the comment boxes here at the public meeting or mail to:
Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

Open House Comments

Fill in and Submit at the Open House

1. Name [redacted]
2. Organization/Affiliation [redacted]
3. Address [redacted] Lopez Is WA
4. E-mail [redacted]
5. Please check here [] if you would NOT like to be on the mailing list
6. Please check here [X] if you would like your name/address kept private
7. Please check here [] if you would like to receive a CD of the Final EIS

- 1.a. Thank You
12.j. Property Values
2.k. Range of Alternatives
2.n. Alternatives Considered But Eliminated
4.f. Noise Measurements/Modeling/On-Site Validation
4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
4.j. Other Reports
4.m. Supplemental Metrics
4.r. Nonauditory Health Effects
4.t. Noise Mitigation
7.h. San Juan Islands National Monument

Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

- 1. Evaluate impacts of the Growler at low frequencies (C-weighted, dBC).
2. Recognize the impacts of low frequency Growler noise on health.
3. Incorporate San Juan County noise reports in the EIS analysis.
4. Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.
5. Evaluate a new Alternative that deploys UCLASS jets instead of more Growlers.
6. Commit to Mitigation Measures and timelines in the Record of Decision.
7. Add your own comments here:

Property values on south Lopez Island - impacts due to increase of high levels of sound on regular basis. Not sufficiently covered in EIS draft (section 4 pg 232-233)

(Continue on the back)

Burlington, WA 98233

1.a. Thank You

14.c. Pedestrians, Bicycles, and Bus Stops

I'm the former [REDACTED] for Skagit Transit and I'd like to request please a bus stop at OLF Coupeville.

Anacortes, WA 98221

I have lived on Whidbey Is, Fidalgo Is, and Guemes Is for a combined total of 47 years. The last 20 years on Guemes has been the worst for jet noise. Since the EA-18G Growler was introduced here (NAS Whidbey) the increase in noise level has escalated. It has NEVER been so loud. Living on Guemes for 20 years, I have accepted occasional jet noise. However, these new jets are so loud that, when they fly over my house I cannot have ANY kind of conversation. In addition, there has been no explanation of why these jets need to fly so low. I urge the Navy to implement methods to lower the decibel level of this jet. Increasing their number may be inevitable- but please address the issue of unbearable loudness. Thank you.

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.a. General Noise Modeling
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.t. Noise Mitigation

Anacortes, WA 98221

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- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.a. General Noise Modeling
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.t. Noise Mitigation

Lopez Island, WA 98261

1.a. Thank You

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. Action: Evaluate impacts of the Growler at low frequencies using C-weighting (cba) in addition to A-weighting (dba).

Lopez Island, WA 98261

1.a. Thank You

4.f. Noise Measurements/Modeling/On-Site Validation

Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region .

lopez island, WA 98261

NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high - thrust jet engines used in the Growlers. Action: Redo the noise simulation using the more recent Advanced Acoustic Model.

1.a. Thank You

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

Lopez Island, WA 98261

- 1.a. Thank You
- 4.d. Day-Night Average Sound Level Metric
- 4.g. Average Annual Day/Average Busy Day Noise Levels

The annual Day - Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. Action: Noise levels should only be averaged over active flying days.

lopez island, WA 98261

1.a. Thank You

4.r. Nonauditory Health Effects

The Draft dismisses long - term health impacts of jet noise because some studies are not conclusive. Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."

lopez island, WA 98261

1.a. Thank You
4.j. Other Reports

The Draft includes some independent noise measurements and ignores others. Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

lopez island, WA 98261

1.a. Thank You

7.h. San Juan Islands National Monument

The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

lopez island, WA 98261

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.
Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land - based carrier training.

lopez island, WA 98261

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism

The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little , if any , economic benefit from employment associated with NASWI. Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

lopez island, WA 98261

The Draft EIS analysis is deficient in numerous areas . CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 1.a. Thank You
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process

Langley, WA 98260

1.a. Thank You
4.j. Other Reports

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts.

Langley, WA 98260

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Langley, WA 98260

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Langley, WA 98260

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

Langley, WA 98260

The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data.

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports

Langley, WA 98260

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Langley, WA 98260

1.a. Thank You

4.r. Nonauditory Health Effects

The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

Langley, WA 98260

1.a. Thank You

4.q. Potential Hearing Loss

The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated.

Langley, WA 98260

1.a. Thank You

13.a. Environmental Justice Impacts

Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.

Langley, WA 98260

The two most dangerous aspects of flying are the approach, landing and takeoff -- in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site.

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Langley, WA 98260

Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of these wells. Leakage of PFAS in storage or use in a crash event is a hugely relevant environmental impact must be addressed and the public must be given the opportunity to comment.

Langley, WA 98260

The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% overestimated use of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected.

- 1.a. Thank You
- 3.e. Field Carrier Landing Practice Patterns
- 3.f. Field Carrier Landing Practice Operation Totals
- 3.g. Field Carrier Landing Practice Evolutions and High Tempo

Langley, WA 98260

1.a. Thank You
4.p. Sleep Disturbance
4.r. Nonauditory Health Effects

The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.

Langley, WA 98260

The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.


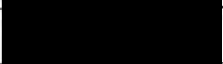
1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

- 1. First Name 
- 2. Last Name 
- 3. Organization/Affiliation RETIRED CONCERNED CITIZEN
- 4. City, State, ZIP LOPEZ ISLAND WA 98261
- 5. E-mail _____
- 6. Please check here if you would NOT like to be on the mailing list
- 7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

1.a. Thank You

Fox Island, WA 98333

Please find a new place to fly the growlers. My family has lived in Coupeville for 3 generations. My mom makes her living selling real estate there and her siblings farm the property that has been in the family for generations. The land is preserved as should the health and well being of its citizens and visitors.

1.a. Thank You

1 UNITED STATES NAVY
2 PUBLIC MEETING
3 FORT WORDEN STATE PARK CONFERENCE CENTER
4 USO HALL
5 200 BATTERY WAY
6 PORT TOWNSEND, WASHINGTON
7 DECEMBER 5, 2016

8
9
10
11
12 ENVIRONMENTAL IMPACT STATEMENT (EIS)
13 FOR EA-18G "GROWLER" AIRFIELD OPERATIONS
14 AT THE NAVAL AIR STATION (NAS)
15 WHIDBEY ISLAND COMPLEX

16
17
18
19
20
21 Court Reporter: Nicole Johnson
22 Olympic Court Reporting Services
Chimacum, Washington 98325
23 (360) 732-4600
24
25

1 PORT TOWNSEND, WASHINGTON

2 MONDAY, DECEMBER 5, 2016

3 --ooOoo--

4
5 [REDACTED]: I'm here very much in
6 support of all the Growler needs, whatever they are. And
7 the reason is simple: The Growlers, if they had been in
8 the air around New York's 9/11/2001 incident, there
9 probably would have been a lot less of that damage and
10 probably would have saved thousands of lives.

11 I was raised at the Naval Air Weapons Station
12 China Lake, California. So with that in mind, I grew up
13 with what is known as the sound of victory or the sound of
14 freedom. Aircraft were always over me when I was at
15 school and when I went off to work. When I finally went
16 into the Navy, they were always in support of my
17 submarines.

18 Without trying to defend someone, they need to
19 open up their ears and listen for that sound of freedom.
20 Those aircraft are being flown and pilots -- and other
21 members of the crew, of course -- the entire aircraft is
22 being manned by their sons and daughters who are out there
23 trying to keep us safe.

24 Without the Growler, the other aircraft and
25 other individuals of members of the services would not

1 have nearly the protection they do have from their ability
2 to block and transmit information as needed for those
3 people trying to fight the battle. And there's more to a
4 battle than shooting.

5 So without being offensive to those who may
6 disagree with me, they need to know that at least one
7 Vietnam-era veteran was raised with that sound in the sky.
8 Back then it was more props than jets, but today, same
9 thing. And there is no sweeter sound if you need them to
10 be there.

San Rafael, CA 94915

1.a. Thank You

2.n. Alternatives Considered But Eliminated

I understand that the US Navy recently released its draft Draft Environmental Impact Statement (DEIS) on the proposed addition of 36 more Growler aircraft at NAS Whidbey Island. I'm writing today to oppose the approval of any additional military flights over the Olympic Peninsula area. I have spent time with family in the Olympic Peninsula area, and greatly value the integrity of the local ecosystems, and the peacefulness of the region. Please reduce rather than increase the military flight allowance.

Shaw Island, WA 98286

The noise when the growlers fly over is unacceptable. My house shakes. In Anacortes it is ear splitting. Please do not increase the number of flights and do mitigate the existing one.

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.r. Nonauditory Health Effects

Port Townsend, WA 98368

I have lived on the Olympic Peninsula for 8 years. I am shocked and distressed by the Navy's proposal to use the Olympic Peninsula as a war training ground theatre. Not only is this of concern to citizens who live on or near the Peninsula and/or who care about the Peninsula, but National Forests, National Parks, and National Wildlife Refuges whose lands are set aside for careful management and preservation should not be effected by the Navy's proposed Growler and related exercises. Those exercises will bring deleterious effects in the form of air pollution (extraordinary CO2 emissions that will impact our already challenged climate), noise pollution which will have an impact on human and animal residents equally, including a significant direct impact on bird life (over half of all seabirds in the Sound Area migrate through Protection Island Wildlife Refuge in Discovery Bay!). The Navy's proposal is a completely unacceptable violation of private citizens, public lands, and unrepresented (except by those of us who speak on their behalf) flora, fauna, and ecosystems. The Navy is rich in brainpower. I strongly recommend this power be applied creatively to manage their training needs in a way that will not have the unforgivably deleterious effects of this current proposal. Thank you for listening to the concerns of citizens who care about the environment and the quality of life in the Pacific NW.

- 1.a. Thank You
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.l. Bird Migration
- 18.b. Average Carbon Dioxide per Aircraft
- 18.d. Washington State Greenhouse Gas Goals
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 2.k. Range of Alternatives
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 7.d. Recreation and Wilderness Analysis and Study Area

 To: EA-18G EIS Project Manager
 Naval Facilities Engineering Command (NAVFAC) Atlantic – Attn: Code EV21/SS 6506
 Hampton Blvd.
 Norfolk, VA 23508

Dear Sir/Madam,

Thank you for extending the comment period to February 24, 2017, in order to accommodate the fact that having four major public processes open over the holidays, all concerning Navy activities or the biological resources that may be affected by them, made it difficult to read, comprehend and prepare comments in a timely way.

1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its “study area” is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because *all* flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects.

2. Impacts to cultural and historic sites are not adequately considered. The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as “normally unacceptable” and above 75 as being “unacceptable.” (<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/>) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.c. Segmentation and Connected Actions
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.f. Endangered Species Impact Analysis Adequacy
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property
- 19.a. Scope of Cumulative Analysis
- 19.b. Revised Cumulative Impacts Analysis
- 19.d. Electronic Warfare
- 19.h. Cumulative Impacts on Biological Resources
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.d. Arrivals and Departures
- 4.a. General Noise Modeling
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 8.a. Cultural Resources Area of Potential Effect
- 8.c. Noise and Vibration Impacts to Cultural Resources
- 8.j. City of Port Townsend Cultural Resources

**NAVY GROWLER DRAFT EIS
NOTES FOR COMMENTS**

*Prepared for the public by the West Coast Action Alliance
(<http://westcoastactionalliance.org>)*

Navy Growler EIS online comments at: <http://www.whidbeyeis.com/Default.aspx>

Dear Reader,

The deadline for comments has been extended to February 24, 2017. For more information, go to: <http://westcoastactionalliance.org> Please use these notes as you see fit, to help inform your comments, which may be filed in two ways:

1. Mail your comments to:

EA-18G EIS Project Manager
Naval Facilities Engineering Command (NAVFAC) Atlantic – Attn: Code EV21/SS 6506
Hampton Blvd.
Norfolk, VA 23508

2. Go online to cut and paste them into the Navy’s comment box, at:
<http://www.whidbeyeis.com/Comment.aspx>

These comments are detailed, but detail is what’s needed to qualify as “substantive” and thus grant the person who comments “standing,” which means the legal status to continue to participate in the process, either via comments at the next phase of the process, or possibly in litigation at the end, should one choose to be part of a larger group that files suit.

It’s better to go long than short, because unless you cover multiple topics in comments at this stage, you may not be allowed to bring up information you left out if there is a future opportunity to comment—unless it’s verifiably “new” information. Do your own research to augment these - go to the site, download the documents, read and do keyword searches:

(<http://nwtteis.com/DocumentsandReferences/NWTTDocuments/FinalEISOEIS.aspx>)

Make these sample comments your own! There are other concerns that have not been discussed in these sample comments. You may notice that we have not editorialized about like how we feel about all this; that is up to you, but remember; feelings alone may not comprise comments that the Navy will view as substantive.

According to Navy Public Affairs Officer Mike Welding there is no character limit, and lengthy comments like these can be copied, pasted and sent in one go via the comments box.

Thanks for caring enough to read this detailed information and to participate in the process.

*Sincerely,
The West Coast Action Alliance*

3. Piecemealing projects to avoid analyzing cumulative effects is illegal. The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions:

1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft;
2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers);
3. 2012 EA (26 Growlers including 5 from a reserve unit);
4. 2014 EA (Growler electronic warfare activity);
5. 2015 EIS discussing electronic warfare training and testing activity;
6. The current 2016-2017 DEIS (36 Growlers);
7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160.

Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville *alone* went from 3,200 per year to a proposed 35,100 in 2017. That’s more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are “no significant impacts.” The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) “...does not allow an approach that would permit dividing a project into multiple ‘actions,’ each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.”

The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability.

4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water.

5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential

13. The Navy's noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers.

14. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible. (<https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>)

15. The Navy describes its activities using the term "event," but does not define it. Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them.

16. New information that was not disclosed in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: <https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control.

17. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed.

18. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled “Representative Sound Levels for Growler Aircraft in Level Flight,” on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets.

19. No mitigation for schools: The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, “. . .but may be developed and altered based on comments received.” Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be “. . .identified in the Final EIS or Record of Decision.” Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy’s proposal to *not* allow a comment period on the Final EIS would be unlawful.

20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period.

21. Crash potential is higher: With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable.

22. Contamination of drinking water in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, “No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft.” While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can

claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant.

23. Navy knew about contamination in advance: It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls “historic” use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of “identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam].” Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: “Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e).” The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word “perfluoroalkyl” or “PFAS” is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals.

(<https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf>)

24. No mention of contaminated soil is found in the DEIS: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water.

25. Impacts to wildlife have been piecemealed: It does not make sense to separate impacts from just one portion of an aircraft’s flight operations and say that’s all you’re looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy’s study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual “events,”

which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process. Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

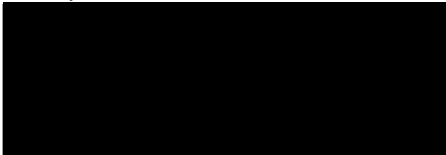
26. Pages of boilerplate language do not constitute analysis of impacts to wildlife:

Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is “greatest during flight operations.” However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is “highly unlikely,” largely because “no suitable habitat is present.” This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly *likely* that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area.

27. Old research cited but new research not: In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (<http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract>) The DEIS also failed to consider an important 2014 study called “Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds,” (<http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html>) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the *best available science*. This DEIS fails that test.

Thank you for considering these comments.

Sincerely,



Port Townsend with 98368



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name [REDACTED]

2. Organization/Affiliation Citizen of Coupeville

3. Address [REDACTED]

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

The increase in growlers & their impact on the community of Coupeville is extreme.

For the navy to be honest, forthright good-neighbors to the historical community of Coupeville requires that you meet in small groups with members of environmental stewards, tribal members, citizens, business owners, realtors etc. to understand how the proposed noise pollution, ground pollution, water pollution, will impact a very special small community that cares deeply for the livability & natural ecosystems of Coupeville. Just the way in which the noise issue has been handled makes me believe that the navy is being disingenuous in its reporting

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:
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extreme changes **YOUR INPUT MATTERS** truly impact the people living in Coupeville

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 17.a. Hazardous Materials and Waste Impacts
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 6.f. Fuel Dumping

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It is your duty to protect the special nature of this small area. Not to be the big boat that kicks us then says "but we asked you for your input." Everyone (nearly) doubts that any of this plea for a more measured look at alternatives to slamming us with the brunt of all the noise & pollution, will make any difference to you the navy. You hold all the cards. You are trying to tell us that this increase ~~is~~ will hardly be noticeable. Fly them over your homes, over Seattle, over the governors mansion, over our legislators homes & work.

Don't pollute us - you are not even measuring the effects of fire retardants & JET FUEL spewed across our fields & water & homes.

Alternatives exist & no one ~~really~~ really expects you to work at finding them.

PROVE IT!

For more information, please visit the project website at whidbeyeis.com

Please print

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Naval Facilities Engineering Command Atlantic

6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

1002860.0041.10

Whidbey 2016_Comment Sheet.ai-GR-6/23/16

1.a. Thank You



Public Meeting Comment Form

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- 1. Name [REDACTED]
- 2. Organization/Affiliation MARROWSTONE ISLAND ANARCHISTS
- 3. Address [REDACTED]
- 4. E-mail _____
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

These are just machines of death.
Have the gates of hell been opened?

Please print • Additional room is provided on back
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YOUR INPUT MATTERS

Coupeville, WA 98239

Thank you for reading this. I have lived on North Whidbey all my life. I grew up under the flight path for NAS Whidbey off of Balda Road. In 1976 I moved to Coupeville and in 1983 I moved south of Coupeville to Houston Road where I live now. When I moved to my current home I knew I was near the old field and also knew that I was on the south end of noise zone 2. I moved here accepting that. What I was not told was that the flights would be increased to the levels that the navy is now proposing. I do know that if the increase does happen as it has been proposed that it will be nearly impossible to continue living where I live now. The noise levels alone will be unbearable and would put myself and my family (Children and grandchildren) in danger. The most dangerous aspects of flying are the approach, landing and takeoff — in other words most of the OLFC flight operations. The risks are significant (a) because of unrestrained and major encroachment problems, (b) because OLFC is about 49,000 acres below the standard and the runway about 3000 feet short of FCLP standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes exacerbated by the significant shoreline bird population. These risks need to be mitigated? please reconsider bringing the new jets to Whidbey Island and destroying a place that is so peaceful. Most of us accept the fact that the Navy is part of Whidbey Island but for the base to grow as has been proposed will not be at all healthy for the people or the environment of the Island.

1.a. Thank You

10.a. Biological Resources Study Area

10.b. Biological Resources Impacts

10.c. Wildlife Sensory Disturbance and Habituation

10.k. Aircraft-Wildlife Strike and Hazing/Lethal Control of Wildlife

12.n. Quality of Life

4.a. General Noise Modeling

5.a. Accident Potential Zones

5.c. Condition of Outlying Landing Field Coupeville

5.e. Lack of First Responders at Outlying Landing Field Coupeville

Coupeville, WA 98239

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1. Name [REDACTED]
2. Organization/Affiliation Concerned Citizen of Whidbey Island
3. Address [REDACTED]
4. E-mail [REDACTED]
5. Please check here if you would NOT like to be on the mailing list
6. Please check here if you would like to receive a CD of the Final EIS when available

Whidbey Island is increasingly becoming an area where people are finding a beautiful, peaceful area to retire to. None of the proposed alternatives are compatible with this lifestyle. Right now I can't go to Ebey's Reserve or up to Deception Pass State Park without hearing the ear splitting roar of jets. It totally ruins the quality of the experience at both of these locations. I am also extremely concerned about the potential water quality issues. All of Whidbey Island except for Oak Harbor rely on groundwater for all our water uses.

Please print • Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

1.a. Thank You
 11.a. Groundwater

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Once this water is polluted it is useless. You can supply drinking water but we use water for irrigation washing - A whole host of other uses besides drinking

This is our home and I'm afraid it is not compatible with the Naval Air Station operations you have in mind.

Is it the Navy's Plan to ruin ~~the~~ our environment so we have to leave and then the Navy can have all of Whidbey Island to do whatever they want-

I'm sorry to be so negative but I really can't see how the proposed increase will benefit me and my home here.

For more information, please visit the project website at whidbeyeis.com

Please print

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic

6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

IN THE MATTER OF:
The Open House Public Meeting for the Draft Environmental
Impact Statement (EIS) for EA-18G "Growler" Airfield
Operations at Naval Air Station (NAS) Whidbey Island Complex

DATE TAKEN: Friday, December 9, 2016

PLACE: Coupeville High School
501 South Main Street
Commons
Coupeville, Washington

TIME: 4:00 p.m. to 7:00 p.m.

REPORTED BY: Mary Mejlaender, CCR No. 2056
Likkell & Associates
Court Reporters & Legal Video
2722 Colby Avenue
Suite 706
Everett, WA 98201
depos@likkellcourtreporters.com

LIKKEL & ASSOCIATES, COURT REPORTERS & LEGAL VIDEO
2722 Colby Avenue, Suite 706, Everett, WA, 98201

(425) 259-3330

1.a. Thank You
11.d. Per- and Polyfluoroalkyl Substances
12.h. Tourism

10

11 (The personal identifiable information disclosure
12 statement was read to the following commenter.)

13 MS. [REDACTED]: I'm [REDACTED],
14 and I acknowledge that the waiver has been read, the
15 information has been read.

16 My input has to do with the impact to the
17 scenarios, the scenic views of the area. I question that it
18 will be beneficial to the community. Disagree with the
19 following statement: Scenarios may have beneficial impact
20 on different parts based on operations distributions between
21 Ault Field and the Outlying Landing Field, OLF Coupeville.
22 I believe the parks, recreational parks in the area will get
23 affected by the increase in flights in the area. Therefore
24 it will impact the tourist -- the tourist attractions and
25 visitors to the area. That's my main -- those are my main

1 concerns.

2 I do have another concern about the water, the
3 EPA report that just came into light and the presence of the
4 PFOA in the city of Coupeville, water that I have been
5 drinking within the last two years in an effort to avoid
6 other problems in my water district area. So I've been
7 diagnosed with -- within the last four years with an immune
8 deficiency for which I'm being treated.

9 * * *

10 (Additional statement by Ms. [REDACTED].)

11 MS. [REDACTED]: So I just want to add
12 that I have reason to believe that possibly the water
13 problems, the presence of those chemicals, has contributed
14 to my disease. There is no one in my family, no family
15 history, no -- it just came out of nowhere.

16 * * *

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017
SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
 By mail at: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

1. Name [REDACTED]

2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
Admirals Cove

3. Address [REDACTED] Coupeville, WA, 98239

4. Email [REDACTED]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

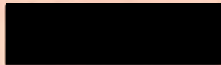
- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

Due to the closeness of homes in the Admirals Cove development area while planes are landing (day or nite) this is one of my concerns.
Thank you



All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

1.a. Thank You
12.p. Local Differences in Economy

Los Angeles, CA 90291

Coupeville, Washington is a national treasure. My family have lived there for more than a hundred years and the expansion of the OLF is a direct threat to the community and the environment in multiple ways. The noise and other impacts are both unfair to this historic community and a desecration of one of the country's most beautiful areas, which is protected for those reasons by other branches of government. The impact of the current jets is already a disproportionate price being paid by the people of Coupeville. Please consider this deeply in your environmental impact analysis.

January 6, 2017

EA-18G EIS Project Manager
Naval Facilities Engineering Command (NAVFAC) Atlantic
Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

Re: Public Comment Against Draft EIS for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island

Dear Sir/Madam:

I am a resident of Clallam County Washington. I am extremely concerned about the effects of noise generated by the Electronic Attack Squadron (VAQ) 132 over the Olympic National Park and surrounding areas including populated areas. Every effort should be made to mitigate the noise to prevent injury to habitat for humans and other animals. I understand that there is no need for the pilots to be at an elevation (other than for landing and take-off) lower than ten-thousand feet, but pilots have been well below this elevation numerous times as evidenced by the flight records kept by the Whidbey NAS and by many complaints received by NAS Whidbey. Can you find a way to assure citizens that flights will not be lower than the ten-thousand foot level?

I also understand that a similar aircraft practices in Mountain Home Idaho AFB, home of the 366 Airforce wing. In fact, the 390th Electronic Combat Squadron, which I believe includes the Electronic Attack Squadron, located at Naval Air Station Whidbey Island, Wash., is assigned to the 366th Operations Group out of Mountain Home AFB. Is the duplication of such training facilities necessary?

I am sure you are aware of the December 16, 2016 incident at NAS Whidbey. The US Navy (USN) has grounded its fleet of Boeing F/A-18E/F Super Hornet and EA-18G Growler combat aircraft while it investigates the cause of a ground incident on 16 December that injured two flight-crew.

The incident at Naval Air Station (NAS) Whidbey Island in Washington state saw an EA-18G Growler from Electronic Attack Squadron (VAQ) 132 experience an unspecified "on-deck emergency" that required both crew members to be airlifted to hospital, a USN statement said.

The Olympic National Park is a National Heritage site, and citizens on the Olympic Peninsula deserve reasonable noise mitigation. I strongly urge appropriate, affective noise mitigation and high altitude only flights which the current draft EIS does not adequately address or resolve.

Sincerely,

[Redacted signature]

Name: [Redacted]

Address: [Redacted] Forks WA 98331

cc: Hon. Derek Kilmer, U.S. Congressman, 6th CD, WA State

- 1.a. Thank You
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 2.a. Purpose and Need
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 4.l. Points of Interest
- 4.t. Noise Mitigation
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to: EA-18G EIS Project Manager NAVFAC Atlantic Attn: Code EV21/SS 6506 Hampton Blvd. Norfolk, VA 23508

- 1.a. Thank You
12.a. Socioeconomic Study Area
12.h. Tourism
2.c. Compliance with the National Environmental Policy Act
2.e. Public Involvement Process
2.k. Range of Alternatives
2.n. Alternatives Considered But Eliminated
4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
4.c. Advanced Acoustic Model
4.d. Day-Night Average Sound Level Metric
4.f. Noise Measurements/Modeling/On-Site Validation
4.g. Average Annual Day/Average Busy Day Noise Levels
4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
4.j. Other Reports
4.r. Nonauditory Health Effects
4.t. Noise Mitigation
7.h. San Juan Islands National Monument

1. First Name [Redacted]
2. Last Name [Redacted]
3. Organization/Affiliation RETIRED, FORMER OFFICER USMC
4. City, State, ZIP LOPEZ WA 98261
5. E-mail

6. Please check here [] if you would NOT like to be on the mailing list

7. Please check here [X] if you would like your name/address kept private

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

12. Add your own comments here:



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) *Provide written comments at today's public meeting;* (2) *Speak with the stenographer, who will record your comments;* (3) *Submit your comments on the project website at www.whidbeyeis.com;* or (4) *Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.*

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. **Name** _____
2. **Organization/Affiliation** resident & citizen
3. **Address** _____ Port Townsend
4. **E-mail** _____
5. Please check here if you would NOT like to be on the mailing list
6. Please check here if you would like to receive a CD of the Final EIS when available

As a resident and citizen and tax payer I am horrified at the real possibilities of environmental disaster. Already bluff erosion is aggravated by Growler noise. My windows rattle, my heart races and my dog hides when Growlers are in flight. Why subject our sea life and wildlife to this? Our human life to this? War Games is money and energy mis-managed. Stop this nonsense NOW

Please print • Additional room is provided on back
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 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS ?

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)
- 2.f. Use of Public Comments
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

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Who is listening to the residents
and citizens? Who's reading these
comments?

For more information, please visit the project website at whidbeyis.com

Please print

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YOUR INPUT MATTERS

Coupeville, WA 98239

I bought my house in 2006 and was still living in CO. I moved here full-time in June, 2009. When I bought the house and questioned the frequency and noise, I was told by the realtor, "Don't worry about it, it's only once or twice a month." Total untruth. I am directly under the east-side pattern. Having a newer house, one would think it is tighter. Not so. With windows and doors closed, I have to hang up the phone with whom ever I am speaking with at the time. Even when the west side pattern is being used, it is very loud where I live. When the east side pattern changed last summer to jets swinging wider over the water, I had to stop gardening for a client down in Harrington Lagoon, as even with ear plugs, it was intolerable to continue working. I called the Navy and complained. If I want to take a bike ride during the best part of the day (sun and warmth), which is when they also choose to fly, I can't do it, or I have to use earplugs, which is not safe while riding on the road. I try to ignore them when they are flying, but the truth is, it is so incredibly upsetting on a visceral level, no matter the time of day. Had I been truthfully advised by my realtor, I would have chosen another part of the island. But my in-laws live 1/2 mile away and I wanted to be near them to take care of them. I am now being forced to move from my own sanctuary and home I love, not only because of the noise, but also the looming threat of a polluted well (I am just over the 1 mile mark radius). If I wait, my house will be so devalued from the increased flights, alone, not to mention the water crisis. I resent having to make this decision because a powerful corporation decides to do what they want, despite the obvious issues. I moved to Whidbey to simplify my life, live in this peaceful setting. The Navy doesn't give a hoot about human beings, animals and birds in their path. Just another greedy corporation.

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.j. Property Values
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 4.n. Speech Interference (Indoor and Outdoor)
- 7.c. Noise Disclosure
- 7.d. Recreation and Wilderness Analysis and Study Area

Indianola, WA 98342

1.a. Thank You

1.c. Segmentation and Connected Actions

7.i. Deception Pass State Park and Other State Parks

Not only does the noise bother me, but these guys zip pretty close to ridgetops (~Angels 6), where I lead climbing teams. I'm concerned that an avalanche will be triggered and endanger my teams. [REDACTED]

1.a. Thank You

Cottonwood, AZ 86326

Enough already, stop fueling the war machine. Keep the money at home for much needed social infrastructure and renewable energy. Please just stop!

1.a. Thank You

Niceville, FL 32578

The E/A-18G is a national asset. It provides the nation with a capability no other platform can perform. As remarkable as the Growler is, it is nothing without trained & current aircrews. Our nation depends on them to be ready 24/7. Realistic training isn't a luxury. It is a national necessity.

Lopez Island, WA 98261

1.a. Thank You
4.t. Noise Mitigation

We are unable to attend the meeting on Lopez Island on 07 December. We are both aviators. The noise level from jet flights is at times extremely loud, and no doubt has some negative effects. As with civil aviation, noise abatement procedures would be appreciated, to the extent they can be employed without compromising operational efficacy. Freedom isn't free, and sometimes it's noisy. Thank you for your service.



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No matter what statistics, documentation, or pretty displays the navy makes IT makes no difference The jets need to go. I will do everything I can legally to fight to get rid of the Growler jets on whidbey island and get that base shut down permanently. No jets, no prop planes, no helicopters. I will complain and call my congressman until the base is shut down. I want my children to live in peace and quiet. The sound of freedom is not worth the cost!

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YOUR INPUT MATTERS

Comments on Whidbey EIS

Page	Reference	Comment
ES-3	From a purely operational perspective, the Navy would prefer to use OLF Coupeville for all FCLPs because it more closely replicates the pattern and conditions at sea and therefore provides superior training.	<p>This statement is not clarified in the EIS. Pasture surrounded by trees and homes with countless birds does not closely replicate the conditions at sea. The OLF is close to Crockett Lake which is a major stopover for migrating birds. Do they plan to deforest the land and decimate the bird population? At Ault Field they are already planning to take down many wet land trees. What happens to the birds and other woodland creatures and the water table?</p> <p>An advantage for the Navy is that Navy personnel will live away from the noise in Coupeville which will basically no longer be livable due to the noise will result in health impacts and loss of income from disappearing tourists.</p>
ES-9	"no significant impact"	No water impact? The town of Coupeville already has a well with contamination and several homes have contaminated wells.
ES-9	Socioeconomics	<ul style="list-style-type: none"> • There would be a significant impact due to the loss of tourism dollars in Coupeville. When the growlers are flying, no one can hear anything, sleep is disturbed, and the quiet tranquil environment which many have worked hard to maintain will be gone and so will the tourists—a substantial impact. • Also, property values and rights in Coupeville will dramatically decrease. It will be a Navy town without the income from the Navy personnel who will be located in Oak Harbor and Anacortes. Also, the Navy will establish Accident Potential Zones (APZ) in Coupeville. Will

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.j. Plants
- 10.k. Aircraft-Wildlife Strike and Hazing/Lethal Control of Wildlife
- 10.l. Bird Migration
- 11.a. Groundwater
- 11.b. Floodplains and Wetlands
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.h. Tourism
- 12.i. Housing Access and Affordability
- 12.j. Property Values
- 12.k. Compensation to Citizens for Private Property
- 12.n. Quality of Life
- 13.a. Environmental Justice Impacts
- 14.d. Bridges and Ferries
- 14.e. Military Vehicles
- 15.a. Infrastructure
- 16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)
- 19.b. Revised Cumulative Impacts Analysis
- 2.a. Purpose and Need
- 2.d. Program of Record for Buying Growler Aircraft
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 4.a. General Noise Modeling
- 4.j. Other Reports
- 4.k. Comparison of the Prowler to the Growler
- 4.m. Supplemental Metrics
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children
- 7.b. Land Use Compatibility and Air Installations Compatible Use Zones
- 7.g. Ebey's Landing National Historical Reserve

		<p>Engle Road and western Coupeville east to Saratoga Passage and from Penn Cove on the north to Puget Sound be included in an Accident Protection Zone (APZ) 1 or 2?</p> <ul style="list-style-type: none"> The additional people will stress the already overused Deception Pass bridge which is 82 years old and not built for military requirements. It already shakes dramatically more than it did 20 years ago due to military requirements. Therefore an additional bridge will be required to handle military requirements which have already stressed the bridge.
ES-10	Transportation	The additional people, traffic and goods movement will stress the already overused Deception Pass bridge which is 82 years old and not built for military requirements. It already shakes dramatically more than it did 20 years ago. Therefore an additional bridge will be required to handle military requirements which have already stressed the bridge.
ES-10	infrastructure	An additional bridge in the Coupeville area will be required. Coupeville will be far from off island emergency egress. The hospital will be close to and maybe inoperative if there is a plane incident. Ferries are often down because of tide and weather.
1-5	1.4 OLF Coupeville, an integral part of operations at Ault Field, provides the most realistic training for FCLP, as well as training for search-and-rescue and parachute operations.	Realistic training is not well defined. There was a recent Growler accident in Dec 2016. What if the accident had happened over the schools and hospital? Training at low attitudes is dangerous for both the pilots and the people on the ground.
1-7	The training squadron is responsible for "post-	Pilot training will be done over the town

	graduate” training of newly designated Navy pilots and Naval Flight Officers, those returning to flight status after non-flying assignments, or those transitioning to a new aircraft for duty in the Fleet. The training squadron is the “schoolhouse” where pilots receive their initial FCLP, and it fosters professional standardization and a sense of community.	of Coupeville with its schools, hospital, stores and residences. What if there is a training incident? There was a recent Growler accident in Dec 2016. How many would be killed? Often the growlers fly low over the town. “Schoolhouse” training should be done over unpopulated areas like the desert.
1-9	1.6 2005 Environmental Assessment for Replacement of Prowler Aircraft with Growler Aircraft at NAS Whidbey Island... A Finding of No Significant Impact (FONSI) was signed on July 19, 2005.	The Prowlers are not as noisy as the Growlers. There has been a significant impact which was ignored by the Navy.
1.9.5	1-23 National Park Service Report for Ebey’s Landing National Historic Reserve (2016) In 2016, the National Park Service performed acoustical monitoring for the Ebey’s Landing National Historic Reserve. The conditions measured by this study were actual aircraft noise over a 28-day period in June and July 2016. Although this differs from the affected environment modeled for calendar year 2021 in this EIS, the results of the study appear consistent with the Navy’s previous noise analyses. Furthermore, the National Park Service’s monitoring report demonstrates that, while military aircraft are loud, military aircraft operations are highly intermittent, with long periods of no military aircraft activity. For example, the report demonstrates that aircraft noise above 60 dB (normal conversation levels) occurred less than 1 percent of the time during the study period.	This study does not apply since the Navy plans to do substantially more FCLP than were done in 2016. What will the flight paths be? Obviously the reserve will be substantially impacted by the constant noise. No one wants to vacation where horrific noise is and with the potential that one of the many training flights will result in a mishap. What is the percentage of time that a military training accident occurs? The low approaches of the Growlers are obviously a safety and noise hazard. Central whidbey is used by many people for hiking and biking. How many accidents will be caused by individuals not able to hear oncoming vehicles due to the loud Growler noise?
1-23	Dalhgren Report on Combat Jet Noise from Landing and Taking Off at Whidbey Island OLF Coupeville (2015)... The Navy has considered the best available science in the development of the Noise Study for this EIS and provides a detailed discussion of its findings in	Please have the Surgeon General confirm the results of the study. There is a very detrimental impact on citizens who cannot go outside for gardening or recreation without ear plugs, who have to close their windows in warm weather because of ear splitting noise, who cannot hear each other

	Section 3.2.	in their homes because of the noise, etc.
1-23	JGL Acoustics, Inc. Report on Whidbey Island Military Jet Noise Measurements (2013)... The JGL report, however, contained methodological flaws that make it unreliable for purposes of relating those short-term measurements to the annual conditions assessed in the 2005 EA. It also did not result in any findings that question the validity of Navy modeling.	Please have the Surgeon General confirm that the Navy used the best methodology to determine the noise impacts since most modern studies show that the level of noise expected in Coupeville and the Reserve would be very detrimental to health and well-being.
2-1	...station additional personnel and their family members at the NAS Whidbey Island complex and in the surrounding community	Navy personnel who can afford it are housing their families in Anacortes to avoid the aircraft noise. Has the Navy decided to put the Growlers in Coupeville so that their personnel will not be subjected to the noise?
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> Runway width, length, and weight-bearing capacity are sufficient to safely support tactical jet aircraft. 	Isn't the runway too short for real safety in case of incidents? Does the Navy plan to extend the runway and cut down trees to make it safer which would negatively impact the already polluted water?
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> The runway is aligned with the prevailing winds, with a painted simulated carrier landing area for day operations and flush-deck lighting to simulate the carrier landing area for night operations. 	The wind directions change constantly on Whidbey Island. This landing area is often wrong for the current winds.
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> Ambient lighting is low in order to duplicate the at-sea carrier environment at night as closely as possible. 	This runway is within feet of a highway with substantial traffic. The headlights would impact ambient light. Also the town of Coupeville, the city of Oak Harbor, and many housing divisions light up the sky substantially at night. It does not duplicate the darkness on the sea.
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> Airspace permits the replication of the aircraft carrier landing pattern. 	Trees and homes surrounding the airfield allow for replication of the aircraft landing pattern?
2-2	2.2 Development of the Range of	It is available 24/7 which means

	<p>Action Alternatives</p> <ul style="list-style-type: none"> The airfield is available 24/7 to support the exclusive use of FCLPs without interruption, except in the case of emergency. 	<p>citizens in the surrounding area will not get sufficient sleep due to numerous awakenings due to loud noise.</p>
2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> Suitable arresting gear is available at the airfield or at another airfield within 17 nautical miles to assist an aircraft landing in the case of an emergency. 	<p>Since the town of Coupeville is 3 miles away and many homes are very close, the gear and personnel should always be available at the OLF when FLCP are in progress.</p>
2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> A MK-14 Improved Fresnel Lens Optical Landing System (IFLOLS) 	<p>Since the system is no longer being manufactured, this is a readiness issue since what happens when it goes down. Apparently the Navy bought many more aircraft without sufficient support systems.</p>
2-6	<p>...From a purely operational perspective, the Navy would prefer to use OLF Coupeville for all FCLPs because it more closely replicates the pattern and conditions at sea, and therefore provides superior training.</p>	<p>Trees and homes surrounding the airfield allow for replication of the aircraft landing pattern? Constantly changing high winds?</p>
	<p>2.3.3.3 Facility and Infrastructure Requirements</p>	<p>Add the requirement for a bridge in Coupeville since Deception Pass Bridge is 82 years old and was not built for military requirements. It shakes much more now than it did 20 years ago. The addition of more Navy people, their trips to homes and shopping over the bridge, the logistics support for the new buildings and facility requirements and the added aircraft will really stress the bridge which is the only egress bridge on the island.</p>
2-14	<p>Co-location of carrier, expeditionary, and training squadrons at the same station reduces the number of relocations for service members undergoing training prior to assignment to the Fleet.</p>	<p>Isn't this a readiness issue? If there were a separate training air field, there would not be so many assets in one area subjected to hurricane winds, volcanos, earthquakes, and potential</p>

		terrorist or enemy attacks.
2-15	Basing some Growler squadrons at an alternative location would result in new logistical and administrative inefficiencies (e.g., longer logistics chains and more personnel reassignments, with associated delays between training and Fleet assignment). Therefore, re-locating new aircraft at alternative locations would degrade the Growler community's overall effectiveness and does not meet the purpose of and need of the Proposed Action.	Again this is a readiness issue. Since it would be difficult or impossible to duplicate the Growler facilities to another area, it means that any incident such as hurricanes, earthquakes, volcano explosions, aircraft accidents, and terrorist or enemy attacks could irreparably harm the readiness of the US Navy. There are 3 active volcanoes in Washington State that are relatively close to Whidbey Island: Mount Rainier, Glacier Peak, and Mount Baker.
2-17	Regional military airfields No other DoD-controlled airfields are within 50 nautical miles (nm) of Ault Field. Training locations need to be located within 50 nm of their home base due to fuel constraints. The two closest DoD airfields are Joint Base Lewis-McChord, which is approximately 80 nm away, and Army Air Field Gray, which is approximately 90 nm away (see Section 2.2). These airfields exceed the maximum transit distance for Growler FCLP and do not meet other criteria for FCLP. Both airfields are located in areas with higher population densities than OLF Coupeville, which increases the amount of ambient lighting at night, thereby degrading training, and also exposes a larger civilian population to aircraft noise.	It is ironic that much effort has been expended to maintain the rural and historical character of Coupeville. The Navy wants to destroy that because they say the only other choices include many more citizens harmed and it would be expensive for the Navy to locate in more than one location. This ignores the fact that this action will basically destroy the town of Coupeville and the surrounding area. Many of our families already gave up land to support the Navy and moved to other parts of Whidbey. Now the Navy is again disrupting lives and basically making people move again if they are able to.
2-18	Constructing a new OLF would result in significant adverse impacts to individual communities that may be subject to inverse condemnation proceedings necessary for the Navy to assume ownership of land necessary to construct a new runway, in addition to surrounding easements. This would also adversely impact the socioeconomic resources of	The Naval Station already took ownership of much of the land on Whidbey Island. Our families already gave up a lot to support the Navy. Many moved to Coupeville after being forced to leave their homes. Now they will have to give up their livelihood and

	the locality that would lose a tax base once that land transfers to federal ownership. The amount of additional new construction would result in more adverse environmental impacts than use of existing facilities.	homes again. People have worked hard to maintain a rural lifestyle. It is hard to realize that the military you support plans to destroy your lifestyle again for convenience and not real military need.
2-19	Anchor an aircraft carrier off the coast FCLP is conducted at on-shore facilities to provide pilots the opportunity to simulate carrier landing operations in an environment where the risks associated with at-sea carrier operations can be safely managed. FCLP is conducted by pilots during their initial Growler training syllabus and by more experienced pilots renewing their training before carrier-landing qualification flights. Finally, per Navy regulations, pilots may not land on an aircraft carrier at sea without completing FCLP on land.	The Navy considers it too dangerous to do the training at sea. However, the Navy considers doing "schoolhouse" training over populated areas such as schools, homes, shops and hospitals an acceptable risk?
3-11	The runway utilization goal at OLF Coupeville has been to split FCLPs equally between Runways 14 and 32. In recent years, however, due to a non-standard pattern on Runway 14, the utilization of Runway 14 has been significantly lower. This narrower pattern requires an unacceptably steep angle of bank for the Growler due to performance differences from the former Prowler flying the pattern.	Is this why in downtown Coupeville by the hospital and schools you can often see the bottom of the Growler coming in so clearly? This is a dangerous aspect of landing over a populated area.
3-19	Classroom/learning Interference	We have been told that Navy personnel that can afford to do so live in Anacortes away from the loudest noise so their families can live and go to schools without suffering from the sound.
3-20	Sleep Disturbance	There are few air conditioners on the island. With the excessive Growler noise, many more homes will have to buy them because open windows in summer will not be possible if you want to hear anything or sleep. There are many low income homes on the island and those people will be unable to sleep when the Growlers are flying.
3-43	3.3.1.2 Bird/Animal Aircraft Strike Hazard ...To reduce the potential for BASH, the FAA and	The OLF is surrounded by bird attracting vegetation. This is a safety

	the military recommend that land uses that attract birds (e.g., agricultural fields, landfills) be located at least 10,000 feet from an airfield.	hazard. The OLF is close to Crockett Lake which is a major stopover for migrating birds.
3-141	3.9 Water Resources	The Navy has polluted water around Ault field and the OLF. They are also planning to take down trees in wet land areas which would have helped clean the water. How do they plan to clean the polluted water?
3-173	Deception Pass Bridge/Canoe Pass Bridge (SR 20) provide the sole access point by land to Whidbey Island via SR 20. The bridges were built in 1935 and are listed on the NRHP (WSDOT, 2015a). The 28-foot-wide bridges include an 11-foot lane in each direction and sidewalks on both sides. Repairs were made to the bridges in the summer of 2015 that included repaving, replacement of bridge joint seals, and repairs to the bridge decks (WSDOT, 2015b). Some discussion has taken place in recent years regarding the replacement of the bridges; however, WSDOT has indicated that the bridges are in good condition, and no plans for their replacement have been made (Island County Sub-Regional RTP, 2012).	The additional Navy people, their trips to homes and shopping over the bridge, logistics support for the new buildings, facility requirements and the added aircraft will really stress the bridge. It is the only egress bridge on the island. The overused Deception Pass/Canoe Pass bridge is 82 years old and not built for military requirements. It already shakes dramatically more than it did 20 years ago due to military requirements. Therefore an additional bridge in the Coupeville area will be required to handle military requirements which have already stressed the Deception Pass bridges.
3-188	3.14.2.3 Seismic Activity	This is a readiness issue. The Growlers are only located on Whidbey Island. Since it would be difficult or impossible to duplicate the Growler facilities to another area, it means that any incident such as earthquakes and volcanic eruptions could irreparably harm the readiness of the US Navy.
5-4	Tree Cutting at Ault Field at NAS Whidbey Island, Washington	The tree cutting will not help with the the water pollution caused by the Navy.

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ES-3	From a purely operational perspective, the Navy would prefer to use OLF Coupeville for all FCLPs because it more closely replicates the pattern and conditions at sea and therefore provides superior training.	Pasture surrounded by trees and homes with countless birds does not closely replicate the conditions at sea. The OLF is close to Crockett Lake which is a major stopover for migrating birds. Do they plan to deforest the land and decimate the bird population? At Ault Field they are already planning to take down many wet land trees. What happens to the birds and other woodland creatures and the water table? Whidbey will lose significant income due to disappearing tourists and potential additional Accident Potential Zones (APZ) designations.
ES-9	"no significant impact"	No water impact? Whidbey Island already has contaminated water apparently due to Naval activity.
ES-9	Socioeconomics	<ul style="list-style-type: none"> • There would be a significant impact due to the loss of tourism dollars on Whidbey Island. When the growlers are flying, no one can hear anything, sleep is impossible, and the quiet tranquil environment which many have worked hard to maintain will be gone and so will the tourists—a substantial impact. • Also, property values and rights in Coupeville will dramatically decrease. The Navy will establish Accident Potential Zones (APZ) in Coupeville. The Air Installations Compatible Use Zones Report (AICUZ) will be issued after the final EIS. Why? It is essential to determining the financial impact of the EIS. • Will Engle Road and western Coupeville east to Saratoga

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
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- 19.b. Revised Cumulative Impacts Analysis
- 2.a. Purpose and Need
- 2.d. Program of Record for Buying Growler Aircraft
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
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		<p>Passage and from Penn Cove on the north to Puget Sound be included in an Accident Protection Zone (APZ) 1 or 2?</p> <ul style="list-style-type: none"> The additional people will stress the already overused Deception Pass bridges which are 82 years old and not built for military requirements. They already shake dramatically more than they did 20 years ago due to military requirements. Therefore an additional bridge will be needed to handle military requirements.
ES-10	Transportation	The additional people, traffic and goods movement will stress the already overused Deception Pass bridges which are 82 years old and not built for military requirements. They already shake dramatically more than they did 20 years ago. Therefore an additional bridge will be needed to handle military requirements.
ES-10	infrastructure	An additional bridge in the Coupeville area will be required. Coupeville will be far from off island emergency egress in case of a catastrophic accident. The hospital will be close to and maybe inoperative if there is a plane incident. Ferries are often down because of tide and weather and are limited in size for an emergency.
1-5	1.4 OLF Coupeville, an integral part of operations at Ault Field, provides the most realistic training for FCLP, as well as training for search-and-rescue and parachute operations.	Realistic training is not well defined. There was a recent Growler accident in Dec 2016. What if the accident had happened over the schools and hospital? Training at low altitudes is dangerous for both the pilots and the people on the ground.
1-7	The training squadron is responsible for "post-graduate" training of newly designated	Pilot training will be done over the town of Coupeville with its schools, hospital,

	<p>Navy pilots and Naval Flight Officers, those returning to flight status after non-flying assignments, or those transitioning to a new aircraft for duty in the Fleet. The training squadron is the “schoolhouse” where pilots receive their initial FCLP, and it fosters professional standardization and a sense of community.</p>	<p>stores and residences. What if there is a training incident? There was a recent Growler accident in Dec 2016. Any accident in the Coupeville area has a high likelihood of being catastrophic. How many would be killed? Often the growlers fly low over the town. “Schoolhouse” training should be done over unpopulated areas like the desert.</p>
1-9	<p>1.6 2005 Environmental Assessment for Replacement of Prowler Aircraft with Growler Aircraft at NAS Whidbey Island... A Finding of No Significant Impact (FONSI) was signed on July 19, 2005.</p>	<p>The Prowlers are not as noisy as the Growlers. There has been a significant noise impact since the Growlers were fielded which was ignored by the Navy.</p>
1.9.5	<p>1-23 National Park Service Report for Ebey’s Landing National Historic Reserve (2016) In 2016, the National Park Service performed acoustical monitoring for the Ebey’s Landing National Historic Reserve. The conditions measured by this study were actual aircraft noise over a 28-day period in June and July 2016. Although this differs from the affected environment modeled for calendar year 2021 in this EIS, the results of the study appear consistent with the Navy’s previous noise analyses. Furthermore, the National Park Service’s monitoring report demonstrates that, while military aircraft are loud, military aircraft operations are highly intermittent, with long periods of no military aircraft activity. For example, the report demonstrates that aircraft noise above 60 dB (normal conversation levels) occurred less than 1 percent of the time during the study period.</p>	<p>This study does not apply since the Navy plans to do substantially more FCLP than were done in 2016. What will the flight paths be? Obviously the reserve will be substantially impacted by the constant noise. No one wants to vacation where horrific noise is and with the potential that one of the many training flights will result in a mishap. What is the percentage of time that a military training accident occurs? The low approaches of the Growlers are obviously a safety and noise hazard.</p> <p>Central Whidbey is used by many people for hiking and biking. How many accidents will be caused by individuals not able to hear oncoming vehicles due to the loud Growler noise?</p>
1-23	<p>Dalhgren Report on Combat Jet Noise from Landing and Taking Off at Whidbey Island OLF Coupeville (2015)... The Navy has considered the best available science in the development of the Noise</p>	<p>We strongly disagree with the results of the study. There is a very detrimental impact on citizens who cannot go outside for gardening, work or recreation without ear plugs, who have to close their windows in warm weather because of ear splitting</p>

	Study for this EIS and provides a detailed discussion of its findings in Section 3.2.	noise, who cannot hear each other in their homes because of the noise, etc.
1-23	JGL Acoustics, Inc. Report on Whidbey Island Military Jet Noise Measurements (2013)... The JGL report, however, contained methodological flaws that make it unreliable for purposes of relating those short-term measurements to the annual conditions assessed in the 2005 EA. It also did not result in any findings that question the validity of Navy modeling.	Most modern studies show that the level of noise expected in Coupeville and the Reserve would be very detrimental to health and well-being.
2-1	...station additional personnel and their family members at the NAS Whidbey Island complex and in the surrounding community	Navy personnel who can afford it are housing their families in Skagit County to avoid the detrimental aircraft noise.
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> Runway width, length, and weight-bearing capacity are sufficient to safely support tactical jet aircraft. 	Isn't the runway too short for real safety in case of incidents? Does the Navy plan to extend the runway and cut down trees to make it safer which would negatively impact the already polluted water?
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> The runway is aligned with the prevailing winds, with a painted simulated carrier landing area for day operations and flush-deck lighting to simulate the carrier landing area for night operations. 	The wind directions change constantly on Whidbey Island. This landing area is often wrong for the current winds. The runway cannot be aligned with the prevailing winds. Besides the wind direction changing constantly, the prevailing wind changes by season on Whidbey Island. The Navy recognizes this problem and has accordingly constructed two intersecting runways at Ault Field. Does the Navy intend to condemn more land at the Coupeville outlying field in order to construct a second runway?
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> Ambient lighting is low in order to duplicate the at-sea carrier environment at night as closely as possible. 	This runway is within feet of a highway with substantial traffic. The headlights would impact ambient light. Also the town of Coupeville, the city of Oak Harbor, and many housing divisions light up the sky

		substantially at night. It does not duplicate the darkness on the sea.
2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> Airspace permits the replication of the aircraft carrier landing pattern. 	Trees and homes surrounding the airfield allow for replication of the aircraft landing pattern?
2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> The airfield is available 24/7 to support the exclusive use of FCLPs without interruption, except in the case of emergency. 	It is available 24/7 which means citizens in the surrounding area will not get sufficient sleep due to numerous awakenings due to loud noise.
2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> Suitable arresting gear is available at the airfield or at another airfield within 17 nautical miles to assist an aircraft landing in the case of an emergency. 	Since the town of Coupeville is 3 miles away and many homes are very close, the gear and personnel should always be available at the OLF when FLCP are in progress.
2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> A MK-14 Improved Fresnel Lens Optical Landing System (IFLOLS) 	Since the system is no longer being manufactured, this is a readiness issue since what happens when it goes down. Did the Navy buy many more aircraft without sufficient support systems?
2-6	...From a purely operational perspective, the Navy would prefer to use OLF Coupeville for all FCLPs because it more closely replicates the pattern and conditions at sea, and therefore provides superior training.	Trees and homes surrounding the airfield allow for replication of the aircraft landing pattern? Constantly changing high winds?
	2.3.3.3 Facility and Infrastructure Requirements	Add the requirement for a bridge in Coupeville since Deception Pass Bridge is 82 years old and was not built for military requirements. It shakes much more now than it did 20 years ago. The addition of more Navy people, their trips to homes and shopping over the bridge, the logistics support for the new buildings and facility requirements and the added aircraft will really stress the

		bridge which is the only egress bridge on the island.
2-14	Co-location of carrier, expeditionary, and training squadrons at the same station reduces the number of relocations for service members undergoing training prior to assignment to the Fleet.	Isn't this a readiness issue? If there were a separate training air field, there would not be so many assets in one area subjected to hurricane winds, volcanos, earthquakes, and potential terrorist or enemy attacks.
2-15	Basing some Growler squadrons at an alternative location would result in new logistical and administrative inefficiencies (e.g., longer logistics chains and more personnel reassignments, with associated delays between training and Fleet assignment). Therefore, re-locating new aircraft at alternative locations would degrade the Growler community's overall effectiveness and does not meet the purpose of and need of the Proposed Action.	Again this is a readiness issue. Since it would be difficult or impossible to duplicate the Growler facilities to another area, it means that any incidents such as hurricanes, earthquakes, volcano explosions, aircraft accidents, and terrorist or enemy attacks could irreparably harm the readiness of the US Navy. There are 3 active volcanoes in Washington State that are relatively close to Whidbey Island: Mount Rainier, Glacier Peak, and Mount Baker.
2-17	Regional military airfields No other DoD-controlled airfields are within 50 nautical miles (nm) of Ault Field. Training locations need to be located within 50 nm of their home base due to fuel constraints. The two closest DoD airfields are Joint Base Lewis-McChord, which is approximately 80 nm away, and Army Air Field Gray, which is approximately 90 nm away (see Section 2.2). These airfields exceed the maximum transit distance for Growler FCLP and do not meet other criteria for FCLP. Both airfields are located in areas with higher population densities than OLF Coupeville, which increases the amount of ambient lighting at night, thereby degrading training, and also exposes a larger civilian population to aircraft noise.	It is ironic that much effort has been expended to maintain the rural and historical character of Coupeville. The Navy wants to destroy that because they say the only other choices include many more citizens harmed and it would be expensive for the Navy to locate in more than one location. This ignores the fact that this action will basically destroy the town of Coupeville and the surrounding area. Many of our families already gave up land to support the Navy and moved to other parts of Whidbey. Now the Navy is again disrupting lives and basically making people move again if they are able to.

<p>2-18</p>	<p>Constructing a new OLF would result in significant adverse impacts to individual communities that may be subject to inverse condemnation proceedings necessary for the Navy to assume ownership of land necessary to construct a new runway, in addition to surrounding easements. This would also adversely impact the socioeconomic resources of the locality that would lose a tax base once that land transfers to federal ownership. The amount of additional new construction would result in more adverse environmental impacts than use of existing facilities.</p>	<p>The Naval Station already took ownership of much of the land on Whidbey Island. Our families already gave up a lot to support the Navy. Many moved to Coupeville after being forced to leave their homes. Now they will have to give up their livelihood and homes again. People have worked hard to maintain a rural lifestyle. It is hard to realize that the military you support plans to destroy your lifestyle again for convenience and not real military need.</p>
<p>2-19</p>	<p>Anchor an aircraft carrier off the coast FCLP is conducted at on-shore facilities to provide pilots the opportunity to simulate carrier landing operations in an environment where the risks associated with at-sea carrier operations can be safely managed. FCLP is conducted by pilots during their initial Growler training syllabus and by more experienced pilots renewing their training before carrier-landing qualification flights. Finally, per Navy regulations, pilots may not land on an aircraft carrier at sea without completing FCLP on land.</p>	<p>The Navy considers it too dangerous to do the training at sea. However, the Navy considers doing "schoolhouse" training over populated areas with schools, homes, shops and hospitals an acceptable risk?</p>
<p>3-11</p>	<p>The runway utilization goal at OLF Coupeville has been to split FCLPs equally between Runways 14 and 32. In recent years, however, due to a non-standard pattern on Runway 14, the utilization of Runway 14 has been significantly lower. This narrower pattern requires an unacceptably steep angle of bank for the Growler due to performance differences from the former Prowler flying the pattern.</p>	<p>Is this why in downtown Coupeville by the hospital and schools you can often see the bottom of the Growler coming in so clearly? This is a dangerous aspect of landing over a populated area.</p>
<p>3-19</p>	<p>Classroom/learning Interference</p>	<p>We were shocked that the Navy did not consider Growler noise interruptions detrimental for learning. We believe that</p>

		the interruptions would be very detrimental to learning. We have been told that Navy personnel that can afford to do so live in Skagit County away from the loudest noise so their families can live and go to schools without suffering from the noise.
3-20	Sleep Disturbance	There are few air conditioners on the island. With the excessive Growler noise, many more homes will have to buy them because open windows in summer will not be possible if you want to hear anything or sleep. There are many low income homes on the island and those people will be unable to sleep when the Growlers are flying.
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3-141	3.9 Water Resources	The Navy has polluted water around Ault field and the OLF. They are also planning to take down trees in wet land areas which would have helped clean the water. How do they plan to clean the polluted water?
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	for their replacement have been made (Island County Sub-Regional RTPO, 2012).	have already stressed the Deception Pass bridges.
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	<p>pilots and Naval Flight Officers, those returning to flight status after non-flying assignments, or those transitioning to a new aircraft for duty in the Fleet. The training squadron is the “schoolhouse” where pilots receive their initial FCLP, and it fosters professional standardization and a sense of community.</p>	<p>stores and residences. What if there is a training incident? There was a recent Growler accident in Dec 2016. Any accident in the Coupeville area has a high likelihood of being catastrophic. How many would be killed? Often the growlers fly low over the town. “Schoolhouse” training should be done over unpopulated areas like the desert.</p>
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2-1	...station additional personnel and their family members at the NAS Whidbey Island complex and in the surrounding community	Navy personnel who can afford it are housing their families in Skagit County to avoid the detrimental aircraft noise.
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> Runway width, length, and weight-bearing capacity are sufficient to safely support tactical jet aircraft. 	Isn't the runway too short for real safety in case of incidents? Does the Navy plan to extend the runway and cut down trees to make it safer which would negatively impact the already polluted water?
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> The runway is aligned with the prevailing winds, with a painted simulated carrier landing area for day operations and flush-deck lighting to simulate the carrier landing area for night operations. 	The wind directions change constantly on Whidbey Island. This landing area is often wrong for the current winds. The runway cannot be aligned with the prevailing winds. Besides the wind direction changing constantly, the prevailing wind changes by season on Whidbey Island. The Navy recognizes this problem and has accordingly constructed two intersecting runways at Ault Field. Does the Navy intend to condemn more land at the Coupeville outlying field in order to construct a second runway?
2-2	2.2 Development of the Range of Action Alternatives <ul style="list-style-type: none"> Ambient lighting is low in order to duplicate the at-sea carrier environment at night as closely as possible. 	This runway is within feet of a highway with substantial traffic. The headlights would impact ambient light. Also the town of Coupeville, the city of Oak Harbor, and many housing divisions light up the sky substantially at night. It does not duplicate the darkness on the sea.

2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> Airspace permits the replication of the aircraft carrier landing pattern. 	<p>Trees and homes surrounding the airfield allow for replication of the aircraft landing pattern?</p>
2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> The airfield is available 24/7 to support the exclusive use of FCLPs without interruption, except in the case of emergency. 	<p>It is available 24/7 which means citizens in the surrounding area will not get sufficient sleep due to numerous awakenings due to loud noise.</p>
2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> Suitable arresting gear is available at the airfield or at another airfield within 17 nautical miles to assist an aircraft landing in the case of an emergency. 	<p>Since the town of Coupeville is 3 miles away and many homes are very close, the gear and personnel should always be available at the OLF when FLCP are in progress.</p>
2-2	<p>2.2 Development of the Range of Action Alternatives</p> <ul style="list-style-type: none"> A MK-14 Improved Fresnel Lens Optical Landing System (IFLOLS) 	<p>Since the system is no longer being manufactured, this is a readiness issue since what happens when it goes down. Did the Navy buy many more aircraft without sufficient support systems?</p>
2-6	<p>...From a purely operational perspective, the Navy would prefer to use OLF Coupeville for all FCLPs because it more closely replicates the pattern and conditions at sea, and therefore provides superior training.</p>	<p>Trees and homes surrounding the airfield allow for replication of the aircraft landing pattern? Constantly changing high winds?</p>
	<p>2.3.3.3 Facility and Infrastructure Requirements</p>	<p>Add the requirement for a bridge in Coupeville since Deception Pass Bridge is 82 years old and was not built for military requirements. It shakes much more now than it did 20 years ago. The addition of more Navy people, their trips to homes and shopping over the bridge, the logistics support for the new buildings and facility requirements and the added aircraft will really stress the bridge which is the only egress bridge on the island.</p>

2-14	Co-location of carrier, expeditionary, and training squadrons at the same station reduces the number of relocations for service members undergoing training prior to assignment to the Fleet.	Isn't this a readiness issue? If there were a separate training air field, there would not be so many assets in one area subjected to hurricane winds, volcanos, earthquakes, and potential terrorist or enemy attacks.
2-15	Basing some Growler squadrons at an alternative location would result in new logistical and administrative inefficiencies (e.g., longer logistics chains and more personnel reassignments, with associated delays between training and Fleet assignment). Therefore, re-locating new aircraft at alternative locations would degrade the Growler community's overall effectiveness and does not meet the purpose of and need of the Proposed Action.	Again this is a readiness issue. Since it would be difficult or impossible to duplicate the Growler facilities to another area, it means that any incidents such as hurricanes, earthquakes, volcano explosions, aircraft accidents, and terrorist or enemy attacks could irreparably harm the readiness of the US Navy. There are 3 active volcanoes in Washington State that are relatively close to Whidbey Island: Mount Rainier, Glacier Peak, and Mount Baker.
2-17	<p>Regional military airfields</p> <p>No other DoD-controlled airfields are within 50 nautical miles (nm) of Ault Field. Training locations need to be located within 50 nm of their home base due to fuel constraints. The two closest DoD airfields are Joint Base Lewis-McChord, which is approximately 80 nm away, and Army Air Field Gray, which is approximately 90 nm away (see Section 2.2). These airfields exceed the maximum transit distance for Growler FCLP and do not meet other criteria for FCLP. Both airfields are located in areas with higher population densities than OLF Coupeville, which increases the amount of ambient lighting at night, thereby degrading training, and also exposes a larger civilian population to aircraft noise.</p>	It is ironic that much effort has been expended to maintain the rural and historical character of Coupeville. The Navy wants to destroy that because they say the only other choices include many more citizens harmed and it would be expensive for the Navy to locate in more than one location. This ignores the fact that this action will basically destroy the town of Coupeville and the surrounding area. Many of our families already gave up land to support the Navy and moved to other parts of Whidbey. Now the Navy is again disrupting lives and basically making people move again if they are able to.
2-18	Constructing a new OLF would result in significant adverse impacts to individual	The Naval Station already took ownership of much of the land on

	<p>communities that may be subject to inverse condemnation proceedings necessary for the Navy to assume ownership of land necessary to construct a new runway, in addition to surrounding easements. This would also adversely impact the socioeconomic resources of the locality that would lose a tax base once that land transfers to federal ownership. The amount of additional new construction would result in more adverse environmental impacts than use of existing facilities.</p>	<p>Whidbey Island. Our families already gave up a lot to support the Navy. Many moved to Coupeville after being forced to leave their homes. Now they will have to give up their livelihood and homes again. People have worked hard to maintain a rural lifestyle. It is hard to realize that the military you support plans to destroy your lifestyle again for convenience and not real military need.</p>
2-19	<p>Anchor an aircraft carrier off the coast FCLP is conducted at on-shore facilities to provide pilots the opportunity to simulate carrier landing operations in an environment where the risks associated with at-sea carrier operations can be safely managed. FCLP is conducted by pilots during their initial Growler training syllabus and by more experienced pilots renewing their training before carrier-landing qualification flights. Finally, per Navy regulations, pilots may not land on an aircraft carrier at sea without completing FCLP on land.</p>	<p>The Navy considers it too dangerous to do the training at sea. However, the Navy considers doing "schoolhouse" training over populated areas with schools, homes, shops and hospitals an acceptable risk?</p>
3-11	<p>The runway utilization goal at OLF Coupeville has been to split FCLPs equally between Runways 14 and 32. In recent years, however, due to a non-standard pattern on Runway 14, the utilization of Runway 14 has been significantly lower. This narrower pattern requires an unacceptably steep angle of bank for the Growler due to performance differences from the former Prowler flying the pattern.</p>	<p>Is this why in downtown Coupeville by the hospital and schools you can often see the bottom of the Growler coming in so clearly? This is a dangerous aspect of landing over a populated area.</p>
3-19	<p>Classroom/learning Interference</p>	<p>We were shocked that the Navy did not consider Growler noise interruptions detrimental for learning. We believe that the interruptions would be very detrimental to learning. We have been told that Navy personnel that can afford to do so live in Skagit County away from the loudest noise so their families can live and go to schools without suffering from the noise.</p>
3-20	<p>Sleep Disturbance</p>	<p>There are few air conditioners on the</p>

		island. With the excessive Growler noise, many more homes will have to buy them because open windows in summer will not be possible if you want to hear anything or sleep. There are many low income homes on the island and those people will be unable to sleep when the Growlers are flying.
3-43	3.3.1.2 Bird/Animal Aircraft Strike Hazard ...To reduce the potential for BASH, the FAA and the military recommend that land uses that attract birds (e.g., agricultural fields, landfills) be located at least 10,000 feet from an airfield.	The OLF is surrounded by bird attracting vegetation. This is a safety hazard. The OLF is close to Crockett Lake which is a major stopover for migrating birds.
3-141	3.9 Water Resources	The Navy has polluted water around Ault field and the OLF. They are also planning to take down trees in wet land areas which would have helped clean the water. How do they plan to clean the polluted water?
3-173	Deception Pass Bridge/Canoe Pass Bridge (SR 20) provide the sole access point by land to Whidbey Island via SR 20. The bridges were built in 1935 and are listed on the NRHP (WSDOT, 2015a). The 28-foot-wide bridges include an 11-foot lane in each direction and sidewalks on both sides. Repairs were made to the bridges in the summer of 2015 that included repaving, replacement of bridge joint seals, and repairs to the bridge decks (WSDOT, 2015b). Some discussion has taken place in recent years regarding the replacement of the bridges; however, WSDOT has indicated that the bridges are in good condition, and no plans for their replacement have been made (Island County Sub-Regional RTPO, 2012).	The additional Navy people, their trips to homes and shopping over the bridge, logistics support for the new buildings, facility requirements and the added aircraft will really stress the bridge. It is the only egress bridge on the island. The overused Deception Pass/Canoe Pass bridge is 82 years old and not built for military requirements. It already shakes dramatically more than it did 20 years ago due to military requirements. Therefore an additional bridge in the Coupeville area will be required to handle military requirements which have already stressed the Deception Pass bridges.
3-188	3.14.2.3 Seismic Activity	This is a readiness issue. The Growlers are only located on Whidbey Island. Since it would be difficult or impossible to duplicate the Growler facilities to another area, it means that any incident such as earthquakes and volcanic eruptions could irreparably harm the

		readiness of the US Navy.
5-4	Tree Cutting at Ault Field at NAS Whidbey Island, Washington	The tree cutting will not help with the water pollution caused by the Navy.

Coupeville, WA 98239

Comments on Whidbey EIS Page Reference Comment ES-3 From a purely operational perspective, the Navy would prefer to use OLF Coupeville for all FCLPs because it more closely replicates the pattern and conditions at sea and therefore provides superior training. This statement is not clarified in the EIS. Pasture surrounded by trees and homes with countless birds does not closely replicate the conditions at sea. The OLF is close to Crockett Lake which is a major stopover for migrating birds. Do they plan to deforest the land and decimate the bird population? At Ault Field they are already planning to take down many wet land trees. What happens to the birds and other woodland creatures and the water table? An advantage for the Navy is that Navy personnel will live away from the noise in Coupeville which will basically no longer be livable due to the noise will result in health impacts and loss of income from disappearing tourists. ES-9 "no significant impact" No water impact? The town of Coupeville already has a well with contamination and several homes have contaminated wells. ES-9 Socioeconomics • There would be a significant impact due to the loss of tourism dollars in Coupeville. When the growlers are flying, no one can hear anything, sleep is disturbed, and the quiet tranquil environment which many have worked hard to maintain will be gone and so will the tourists—a substantial impact. • Also, property values and rights in Coupeville will dramatically decrease. It will be a Navy town without the income from the Navy personnel who will be located in Oak Harbor and Anacortes. Also, the Navy will establish Accident Potential Zones (APZ) in Coupeville. Will Engle Road and western Coupeville east to Saratoga Passage and from Penn Cove on the north to Puget Sound be included in an Accident Protection Zone (APZ) 1 or 2? • The additional people will stress the already overused Deception Pass bridge which is 82 years old and not built for military requirements. It already shakes dramatically more than it did 20 years ago due to military requirements. Therefore an additional bridge will be required to handle military requirements which have already stressed the bridge. ES-10 Transportation The additional people, traffic and goods movement will stress the already overused Deception Pass bridge which is 82 years old and not built for military requirements. It already shakes dramatically more than it did 20 years ago. Therefore an additional bridge will be required to handle military requirements which have already stressed the bridge. ES-10 infrastructure An additional bridge in the Coupeville area will be required. Coupeville will be far from off island emergency egress. The hospital will be close to and maybe inoperative if there is a plane incident. Ferries are often down because of tide and weather. 1-5 1.4 OLF Coupeville, an integral part of operations at Ault Field, provides the most realistic training for FCLP, as well as training for search-and-rescue and parachute operations. Realistic training is not well defined. There was a recent Growler accident in Dec 2016. What if the accident had happened over the schools and hospital? Training at low altitudes is dangerous for both the pilots and the people on the ground. 1-7 The training squadron is responsible for "post-graduate" training of newly designated Navy pilots and Naval Flight Officers, those returning to flight status after non-flying assignments, or those transitioning to a new aircraft for duty in the Fleet. The training squadron is the "schoolhouse" where pilots receive their initial FCLP, and it fosters professional standardization and a sense of community. Pilot training will be done over the town of Coupeville with its schools, hospital, stores and residences. What if there is a

training incident? There was a recent Growler accident in Dec 2016. How many would be killed? Often the growlers fly low over the town. "Schoolhouse" training should be done over unpopulated areas like the desert. 1-9 1.6 2005 Environmental Assessment for Replacement of Prowler Aircraft with Growler Aircraft at NAS Whidbey Island... A Finding of No Significant Impact (FONSI) was signed on July 19, 2005. The Prowlers are not as noisy as the Growlers. There has been a significant impact which was ignored by the Navy. 1.9.5 1-23 National Park Service Report for Ebey's Landing National Historic Reserve (2016) In 2016, the National Park Service performed acoustical monitoring for the Ebey's Landing National Historic Reserve. The conditions measured by this study were actual aircraft noise over a 28-day period in June and July 2016. Although this differs from the affected environment modeled for calendar year 2021 in this EIS, the results of the study appear consistent with the Navy's previous noise analyses. Furthermore, the National Park Service's monitoring report demonstrates that, while military aircraft are loud, military aircraft operations are highly intermittent, with long periods of no military aircraft activity. For example, the report demonstrates that aircraft noise above 60 dB (normal conversation levels) occurred less than 1 percent of the time during the study period. This study does not apply since the Navy plans to do substantially more FCLP than were done in 2016. What will the flight paths be? Obviously the reserve will be substantially impacted by the constant noise. No one wants to vacation where horrific noise is and with the potential that one of the many training flights will result in a mishap. What is the percentage of time that a military training accident occurs? The low approaches of the Growlers are obviously a safety and noise hazard. Central whidbey is used by many people for hiking and biking. How many accidents will be caused by individuals not able to hear oncoming vehicles due to the loud Growler noise? 1-23 Dalhgren Report on Combat Jet Noise from Landing and Taking Off at Whidbey Island OLF Coupeville (2015)... The Navy has considered the best available science in the development of the Noise Study for this EIS and provides a detailed discussion of its findings in Section 3.2. Please have the Surgeon General confirm the results of the study. There is a very detrimental impact on citizens who cannot go outside for gardening or recreation without ear plugs, who have to close their windows in warm weather because of ear splitting noise, who cannot hear each other in their homes because of the noise, etc. 1-23 JGL Acoustics, Inc. Report on Whidbey Island Military Jet Noise Measurements (2013)... The JGL report, however, contained methodological flaws that make it unreliable for purposes of relating those short-term measurements to the annual conditions assessed in the 2005 EA. It also did not result in any findings that question the validity of Navy modeling. Please have the Surgeon General confirm that the Navy used the best methodology to determine the noise impacts since most modern studies show that the level of noise expected in Coupeville and the Reserve would be very detrimental to health and well-being. 2-1 ...station additional personnel and their family members at the NAS Whidbey Island complex and in the surrounding community Navy personnel who can afford it are housing their families in Anacortes to avoid the aircraft noise. Has the Navy decided to put the Growlers in Coupeville so that their personnel will not be subjected to the noise? 2-2 2.2 Development of the Range of Action Alternatives • Runway width, length, and weight-bearing capacity are sufficient to safely support tactical jet aircraft. Isn't the runway too short for real safety in case of incidents? Does the Navy plan to extend the runway and cut down trees to make it safer which would negatively impact the already polluted water? 2-2 2.2 Development of the Range of Action Alternatives • The runway is aligned with the prevailing winds, with a painted

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Training locations need to be located within 50 nm of their home base due to fuel constraints. The two closest DoD airfields are Joint Base Lewis-McChord, which is approximately 80 nm away, and Army Air Field Gray, which is approximately 90 nm away (see Section 2.2). These airfields exceed the maximum transit distance for Growler FCLP and do not meet other criteria for FCLP. Both airfields are located in areas with higher population densities than OLF Coupeville, which increases the amount of ambient lighting at night, thereby degrading training, and also exposes a larger civilian population to aircraft noise. It is ironic that much effort has been expended to maintain the rural and historical character of Coupeville. The Navy wants to destroy that because they say the only other choices include many more citizens harmed and it would be expensive for the Navy to locate in more than one location. This ignores the fact that this action will basically destroy the town of Coupeville and the surrounding area. Many of our families already gave up land to support the Navy and moved to other parts of Whidbey. Now the Navy is again disrupting lives and basically making people move again if they are able to.

2-18 Constructing a new OLF would result in significant adverse impacts to individual communities that may be subject to inverse condemnation proceedings necessary for the Navy to assume ownership of land necessary to construct a new runway, in addition to surrounding easements. This would also adversely impact the socioeconomic resources of the locality that would lose a tax base once that land transfers to federal ownership. The amount of additional new construction would result in more adverse environmental impacts than use of existing facilities. The Naval Station already took ownership of much of the land on Whidbey Island. Our families already gave up a lot to support the Navy. Many moved to Coupeville after being forced to leave their homes. Now they will have to give up their livelihood and homes again. People have worked hard to maintain a rural lifestyle. It is hard to realize that the military you support plans to destroy your lifestyle again for convenience and not real military need.

2-19 Anchor an aircraft carrier off the coast FCLP is conducted at on-shore facilities to provide pilots the opportunity to simulate carrier landing operations in an environment where the risks associated with at-sea carrier operations can be safely managed. FCLP is conducted by pilots during their initial Growler training syllabus and by more experienced pilots renewing their training before carrier-landing qualification flights. Finally, per Navy regulations, pilots may not land on an aircraft carrier at sea without completing FCLP on land. The Navy considers it too dangerous to do the training at sea. However, the Navy considers doing "schoolhouse" training over populated areas such as schools, homes, shops and hospitals an acceptable risk?

3-11 The runway utilization goal at OLF Coupeville has been to split FCLPs equally between Runways 14 and 32. In recent years, however, due to a non-standard pattern on Runway 14, the utilization of Runway 14 has been significantly lower. This narrower pattern requires an unacceptably steep angle of bank for the Growler due to performance differences from the former Prowler flying the pattern. Is this why in downtown Coupeville by the hospital and schools you can often see the bottom of the Growler coming in so clearly? This is a dangerous aspect of landing over a populated area.

3-19 Classroom/Learning Interference We have been told that Navy personnel that can afford to do so live in Anacortes away from the loudest noise so their families can live and go to schools without suffering from the sound.

3-20 Sleep Disturbance There are few air conditioners on the island. With the excessive Growler noise, many more homes will have to buy them because open windows in summer will not be possible if you want to hear anything or sleep. There are many low income homes on the island and those people will be unable to sleep when the Growlers are flying.

3-43 3.3.1.2 Bird/Animal

Aircraft Strike Hazard ...To reduce the potential for BASH, the FAA and the military recommend that land uses that attract birds (e.g., agricultural fields, landfills) be located at least 10,000 feet from an airfield. The OLF is surrounded by bird attracting vegetation. This is a safety hazard. The OLF is close to Crockett Lake which is a major stopover for migrating birds.

3-141 3.9 Water Resources The Navy has polluted water around Ault field and the OLF. They are also planning to take down trees in wet land areas which would have helped clean the water. How do they plan to clean the polluted water? 3-173

Deception Pass Bridge/Canoe Pass Bridge (SR 20) provide the sole access point by land to Whidbey Island via SR 20. The bridges were built in 1935 and are listed on the NRHP (WSDOT, 2015a). The 28-foot-wide bridges include an 11-foot lane in each direction and sidewalks on both sides. Repairs were made to the bridges in the summer of 2015 that included repaving, replacement of bridge joint seals, and repairs to the bridge decks (WSDOT, 2015b). Some discussion has taken place in recent years regarding the replacement of the bridges; however, WSDOT has indicated that the bridges are in good condition, and no plans for their replacement have been made (Island County Sub-Regional RTPO, 2012). The additional Navy people, their trips to homes and shopping over the bridge, logistics support for the new buildings, facility requirements and the added aircraft will really stress the bridge. It is the only egress bridge on the island. The overused Deception Pass/Canoe Pass bridge is 82 years old and not built for military requirements. It already shakes dramatically more than it did 20 years ago due to military requirements. Therefore an additional bridge in the Coupeville area will be required to handle military requirements which have already stressed the Deception Pass bridges.

3-188 3.14.2.3 Seismic Activity This is a readiness issue. The Growlers are only located on Whidbey Island. Since it would be difficult or impossible to duplicate the Growler facilities to another area, it means that any incident such as earthquakes and volcanic eruptions could irreparably harm the readiness of the US Navy.

5-4 Tree Cutting at Ault Field at NAS Whidbey Island, Washington The tree cutting will not help with the the water pollution caused by the Navy.

Coupeville, WA 98239

The noise level of the Growler aircraft is very much louder than previous aircraft at the Whidbey Island Naval Air Station. It is so loud that I cannot hear my gasoline lawn mower or weed whacker when a Growler flies overhead, and I normally wear ear protection when using the lawn mower or weed whacker because they are so loud. It is hard to imagine how much tourism will decline if Growler flights are increase as is currently being proposed. This would have a significant negative impact on the economy of the Town of Coupeville, and property values will decline in any homes near the flight path of the Growlers. The runway at the Coupeville Outlying Field cannot be aligned with the prevailing winds. Apart from the wind direction changing constantly, the prevailing wind changes by season on Whidbey Island. The Navy recognizes this problem and has accordingly constructed two intersecting runways at Ault Field. Does the Navy intend to condemn more land at the Coupeville Outlying Field in order to construct a second intersecting runway? There needs to be an alternate access bridge for Whidbey Island. The bridge was built 82 years ago without any possibility to foresee the Whidbey Island Naval Air Station installation. Whidbey Island Naval Air Station is the main reason the bridge has been severely stressed beyond its original design requirements. In 1940, five years after the bridge was built, the population of Oak Harbor was 376. In 2010, the population was 22,075. This trend is continuing and will rapidly increase with the need for supporting the additional Growler aircraft. Without the Whidbey Island Naval Air Station, Oak Harbor would likely have had a population growth rate similar to Coupeville. Coupeville had a population of 325 in 1940 and 1,831 in 2010. At this rate of population growth the 82 year old Deception Pass Bridge would be in good shape rather than its current wobbly condition. Also, the Deception Pass Bridge was not designed for the current large size vehicles needed to support the infrastructure of the Whidbey Island Naval Air Station. The bridge currently has numerous accidents where heavy vehicle demolish portions of the pedestrian railing. This is a serious hazard for pedestrians on the bridge.

- 1.a. Thank You
- 12.h. Tourism
- 14.a. Transportation Impacts
- 14.d. Bridges and Ferries
- 3.a. Aircraft Operations
- 3.e. Field Carrier Landing Practice Patterns
- 3.h. Runway Usage, Flight Tracks, and Altitudes

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name [Redacted]
2. Last Name [Redacted]
3. Organization/Affiliation NONE
4. City, State, ZIP Shaw Island, WA 98286
5. E-mail [Redacted]

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.

Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).

2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.

Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.

3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.

Action: Redo the noise simulation using the more recent Advanced Acoustic Model.

4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.

Action: Noise levels should only be averaged over active flying days.

5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.

Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."

6. The Draft includes some independent noise measurements and ignores others.

Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

12. Add your own comments here:

*THIS IS JUST ANOTHER INTRUSION BY THE
NAVY IN OUR QUALITY OF LIFE. THIS IS
NOT JUST ANOTHER "NIMBY" REQUEST, AS
YOUR "GROWLERS" SET A NOISE THRESHOLD
SO MUCH HIGHER THAN OTHER AIRCRAFT.
NO MORE! EXPAND YOUR TRAINING IN
TEXAS; USE FLIGHT SIMULATORS.*

1.a. Thank You

Oak Harbor, WA 98277

I fully support the operations of the Navy Growler air field and all the training missions. Living in the USA is an honor and privilege and we need to support the Navy for our security. When we purchased our home on Whidbey we were informed of the noise and the radius of operations. We fully acknowledged that there would be flights overhead and that there would be noise. I love watching the planes.



Public Meeting Comment Form

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- 1. Name [REDACTED]
- 2. Organization/Affiliation Fenner
- 3. Address [REDACTED]
- 4. E-mail _____
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

The noise is worse every year.

Please print - Additional room is provided on back
Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS
YOUR INPUT MATTERS

1.a. Thank You

Oak Harbor, WA 98277

I fully support the goals of NASWI relative to the increased training opportunities to be offered pilots. I fully researched Whidbey Island before moving here seven years ago. Reading both real estate handouts and the local paper, I was completely aware of Navy issues, and made it a point to observe trainings. I chose to buy a home out of the direct flight path, even though it was more expensive than those offered under the path. For three years I volunteered in a school directly under the path (six hours a week), and at no time were lessons impacted by the fly-overs. Also, as a licensed speech-language pathologist, I am aware of research relative to noise-induced hearing loss, and acknowledge that though the levels can at times seem overwhelming, they are not in the researched levels of negative impact. I do appreciate it when the Navy posts training times, so that some outside activities may be planned around the scheduling, but also realize that isn't always possible. The Navy families brought to WI as a result of the training are a benefit to the island community.

- 1.a. Thank You
- 4.o. Classroom Learning Interference
- 4.q. Potential Hearing Loss
- 4.t. Noise Mitigation

Mount Vernon, WA 98273

Comments 1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide “scientifically and legally defensible noise assessments” of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.” ACTION: Supplement the EIS to address deficiencies identified in

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 12.j. Property Values
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 4.t. Noise Mitigation
- 7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared. 12. The statement on 1-19 "...there is no consensus within the scientific community that supports a relationship between aircraft noise exposure and non-auditory health impacts..." entirely misses the point. I found numerous articles discussing this very relationship. It is an argument similar to the denial of the effects of smoking on health for so many years. This is a very important and long term impact of this proposal and must be studied in depth.



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1. Name U.S. Citizen
2. Organization/Affiliation _____
3. Address _____
4. E-mail _____
5. Please check here if you would NOT like to be on the mailing list
6. Please check here if you would like to receive a CD of the Final EIS when available

The Health Impacts are not
 worth the National Security
 you preach! Keep it in IDAHO
 go away, and leave us in peace!
 NO more LIES

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

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YOUR INPUT MATTERS

1.a. Thank You

2.n. Alternatives Considered But Eliminated



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1. Name [REDACTED]
2. Organization/Affiliation private citizen
3. Address [REDACTED] Port Townsend
4. E-mail _____
5. Please check here if you would NOT like to be on the mailing list
6. Please check here if you would like to receive a CD of the Final EIS when available

Looking at the noise report - EIS statement on page 8 A-341 sound levels - I am deeply concerned, having worked for years (decades) with the deaf and hard of hearing and having an understanding of noise level both at peak and duration. Anything above 86 decibels is worrisome. The fact that the average year round baseline is so high, above that number, up to 121 decibels. It takes little exposure at 121 decibels to cause

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YOUR INPUT MATTERS

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 10.m. Impacts to Marine Species and Habitat
- 4.d. Day-Night Average Sound Level Metric
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.m. Supplemental Metrics
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

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deafness or do serious damage. I worry both for the people living in the affected areas as well as all the species in the national park who rely on their hearing for survival.

Many of us are impacted by the noise levels and our houses shake when they fly over.

Please less noise. Why should we be woken in the middle of the night? Why should we drive more species into extinction?

No more growlers. I'd prefer none at all. The impact is too deadly and devastating.

For more information, please visit the project website at whidbeyeis.com

Please print

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 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

Coupeville, WA 98239

As a recently retired senior citizen living on Whidbey Island I have a sincere concern regarding the impacts of proposed increase of Growlers and the EIS submitted for review. 1. I am concerned about health issues related to the elevated noise. My primary concerns are heart issues related to stresses resulting from sleep deprivation and hearing loss from excessive sound overhead. 2. I have concerns about the high incidence of accidents related to the Growler flights and landings. 3. The level of noise is already so disruptive and the increase of flights will further deter the interest of potential buyers should I find the health risks unmanageable and forced to move my residence. 4. My property value will greatly diminish with the increased activity and noise associated with this training. 5. The environment of the island will be dramatically impacted by emissions, noise, fuel leaks or dumping. I am worried about the impact on our sanctuary preserves. 6. The influx of navy personnel will dramatically impede the traffic and clog egress off of the island. There is only one lane of highway to exit the island by land. In an emergency evacuation this exit would be impossible. Thank you for allowing me to express my concerns. I am supportive of the Navy, but not to the extent of injuring or causing harm to my health and life. Please review areas more compatible for these exercises that don't have the impact of such devastating environmental and human health risks.

- 1.a. Thank You
- 12.j. Property Values
- 14.d. Bridges and Ferries
- 2.n. Alternatives Considered But Eliminated
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

lopez island, WA 98261

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in

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 12.h. Tourism
 2.c. Compliance with the National Environmental Policy Act
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lopez island, WA 98261

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1.a. Thank You

12.a. Socioeconomic Study Area

12.h. Tourism

2.c. Compliance with the National Environmental Policy Act

2.e. Public Involvement Process

2.k. Range of Alternatives

2.n. Alternatives Considered But Eliminated

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

4.d. Day-Night Average Sound Level Metric

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4.g. Average Annual Day/Average Busy Day Noise Levels

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.j. Other Reports

4.r. Nonauditory Health Effects

4.t. Noise Mitigation

7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared.

Coupeville, WA 98239

1.a. Thank You

7.a. Regional Land Use and Community Character

I am not anti-military or navy. I support our soldiers. What I am ANTI is your proposal to disrupt the entire community, farmers, and sanctuary that is sacred, protected land. Ebey's Reserve is federally protected by the government to be preserved as it is: working farmland, parks, and a community. Everything you have proposed is a threat to this land and community. The impacts will be felt across the world as the Reserve is a major source of food in the global economy. Oak Harbor was built for jets. Coupeville has been a sanctuary away from them. Please do not threaten what is still sacred.

Coupeville , WA 98239

I am in hopes that you will reconsider a decision to increase the flights in the Central Whidbey area. I feel that the noise from the proposed practices will have an extremely negative effect on our ability to make a living in the area. It will effect farmers. It will be a terrible problem for the tourist industry, a problem for children in classrooms under the proposed flight paths. Professional people will move away, as the sound is intolerable for ordinary lives. There would be no reason to stay. This, in turn, will decimate the culture of this fragile, beautiful area. The Federal Government has designated this area as precious. It is a National Hhistorical Reserve, and at the same time, another Federal Agency is proposing to create an environment that will, in essence, wipe out that investment.

1.a. Thank You
12.c. Socioeconomic Impacts
12.e. Agriculture Analysis
12.h. Tourism
4.o. Classroom Learning Interference
7.a. Regional Land Use and Community Character
8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

Coupeville, WA 98238

1.a. Thank You
12.j. Property Values
8.f. Cultural Landscape and Impacts to Ebey's Landing National
Historical Reserve

Hello, and thank you for reviewing my email. My name is [REDACTED]. I am a Realtor in Central Whidbey. I am very concerned about the property and land values taking a precipitous drop should the Navy bring in more jets for practicing touch and go practices at the Outlying Field. We already have areas near the Outlying field that are valued considerably lower than similar properties in other areas on Whidbey. At this time, more buyers than usual are holding off from purchasing in this area, and sellers are unable to sell their homes, as the future is unpredictable at this point. If the Navy determines that they will be flying more than they are currently flying, many people in this area will lose the long-term or short-term equity that they have built, or they may find that their homes are worth less than their mortgage, which will have a devastating effect on local residents, and on our economy. As a 4th-generation resident of this area, and a volunteer for Ebey's Landing National Historical Reserve, I have great difficulty understating how one agency of the federal government can call our area a historically significant, precious asset to the nation, and have another agency destroy the very nature of what the reserve represents. People from all over the world come to visit Ebey's Landing National Historical Reserve. The US government has invested millions of dollars in the area, and local residents, including members of my family, have sacrificed their future property values in order to preserve the stunning beauty of this area in perpetuity. This was a considerable sacrifice. My heart breaks to imagine what we, in this community, will lose if the Navy increases its flights in the future, and if the Navy extends the flight pattern closer to the town of Coupeville. Thank you for reading this. Sincerely yours, and with all due respect, A fellow United States citizen, [REDACTED]

1.a. Thank You
12.j. Property Values
8.f. Cultural Landscape and Impacts to Ebey's Landing National
Historical Reserve

-----Original Message-----

From: [REDACTED]
Sent: Tuesday, February 07, 2017 1:26 PM
To: WHDB_NASWI_Comments_Mailbox
Cc: [REDACTED]
Subject: [Non-DoD Source] Increase in jet activity in Central Whidbey Island

Hello, and thank you for reviewing my email.

My name is [REDACTED]. I am a Realtor in Central Whidbey. I am very concerned about the property and land values taking a precipitous drop should the Navy bring in more jets for practicing touch and go practices at the Outlying Field. We have areas near the Outlying field that are valued considerably lower than similar properties in other areas on Whidbey. At this time, many buyers are holding off from purchasing in this area, and sellers are unable to sell their homes, as the future is unpredictable at this point. If the Navy determines that they will be flying more than currently flying, many people in this area will lose the long-term or short-term equity that they have built, or they may find that their homes are worth less than their mortgage, which will have a devastating effect on local residents.

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My heart breaks to imagine what we will lose if the Navy increased its flights in the future, and if the Navy extends the flight pattern closer to the town of Coupeville.

Thank you for reading this.

Sincerely yours, and with due respect,

A fellow United States citizen,

[REDACTED]
Coupeville WA 98239

[REDACTED]
Sent from my iPad

Coupeville, WA 98239

1.a. Thank You

12.n. Quality of Life

7.g. Ebey's Landing National Historical Reserve

I live in the center of the Town of Coupeville. My concern is about the actual town, and how the inhabitants may no longer wish to live here if we have additional flights in an expanded pattern. I feel that the people that help to create the "culture" of our town, including me, will not longer find this to be a tolerable living situation. Coupeville is a very special community. It is in a National Park. The Federal government has spent millions of dollars preserving this area for the next generations to enjoy. It would not be worth visiting or living in, if this takes place. I am a part of a farm family that has lived here since the 1800s. Please don't lay waste to this magnificent body of land, and beautiful, charming, historically significant community. Please do not increase flights in this area. Please.

Coupeville, WA 98239

1.a. Thank You
2.k. Range of Alternatives

I would hope that the Navy will not expand their flights at the OLF. I have spent time under those jets, and they do not belong over a community, over schools, over a hospital, over playgrounds, over State Parks, County Parks, City Parks or, over a beautiful National Park. And all of those things are in the pattern for the OLF. The jets are ear-splittingly loud. The jets, as proposed,, will decimate this community. Please consider the appropriateness of this site, and change it.

, WA 98239

1.a. Thank You
12.j. Property Values

Increased flights at the OLF will reduce property values a great deal in the area, and take away the accumulated wealth of many people, including many Navy retirees that have fallen in the love with the area and stayed. For those of us that have only our homes as a retirement "plan", it seems unfair and draconian. I am a Real Estate Agent in Coupeville, and know this to be true.

Coupeville, WA 98239

The noise that comes from the growlers practicing at OLF can be trying at times. It's extremely loud. When I have been under the jets for more than an hour or so without being able to leave, my body seems to go into a state not unlike when I have been in an automobile accident. I believe that if the training increases and/or the flight pattern increases, people will no longer wish to live in our beautiful little town. We will lose the culture that my family has enjoyed and loved and cherished for one hundred and thirty years. The Department of the Interior believes that this is a precious historical area, and has spent millions preserving it. How could another agency in our own government be willing to destroy it?

1.a. Thank You

8.c. Noise and Vibration Impacts to Cultural Resources

8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

1.a. Thank You

4.r. Nonauditory Health Effects

Coupeville, WA 98239

The noise that comes from the growlers practicing at OLF can be trying at times. It's extremely loud. When I have been under the jets for more than an hour or so without being able to leave, my body seems to go into a state not unlike when I have been in an automobile accident. I believe that if the training increases and/or the flight pattern increases, people will no longer wish to live in our beautiful little town. We will lose the culture that my family has enjoyed and loved and cherished for one hundred and thirty years. The Department of the Interior believes that this is a precious historical area, and has spent millions preserving it. How could another agency in our own government be willing to destroy it?

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lopez island, WA 98261

. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation areas that are being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in

1.a. Thank You

12.a. Socioeconomic Study Area

12.h. Tourism

2.c. Compliance with the National Environmental Policy Act

2.e. Public Involvement Process

2.k. Range of Alternatives

2.n. Alternatives Considered But Eliminated

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

4.d. Day-Night Average Sound Level Metric

4.f. Noise Measurements/Modeling/On-Site Validation

4.g. Average Annual Day/Average Busy Day Noise Levels

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.j. Other Reports

4.r. Nonauditory Health Effects

4.t. Noise Mitigation

7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared.

lopez island, WA 98261

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft. ACTION: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA). 2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified. ACTION: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region. 3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers. ACTION: Redo the noise simulation using the more recent Advanced Acoustic Model. 4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days. ACTION: Noise levels should only be averaged over active flying days. 5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive. ACTION: Recognize the health impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe." 6. The Draft includes some independent noise measurements and ignores others. ACTION: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis. 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument. ACTION: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA. 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing. ACTION: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training. 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI. ACTION: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties. 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment. ACTION: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision. 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." ACTION: Supplement the EIS to address deficiencies identified in

1.a. Thank You

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4.j. Other Reports

4.q. Potential Hearing Loss

4.t. Noise Mitigation

7.h. San Juan Islands National Monument

comments and offer further opportunity for public comment before the Final EIS is prepared.

Freeland, WA 98249

1.a. Thank You

5.a. Accident Potential Zones

5.d. Environmental Health Risks and Safety Risks to Children

I have serious concerns about the noise and safety levels with the increase of flying hours proposed.

Victoria/Saanich, British Columbia V9E 2H3

I live on a rural acreage on Vancouver Island less than 50 miles from Whitney and each time the Growlers takeoff/land my windows shake and the intolerable deep roar causes dogs to bark and livestock to stampede. This MUST stop immediately. It is harassment.

1.a. Thank You

4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Lopez Island, WA 98261

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined "hazardous noise zone" threshold (i.e., an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month).

1.a. Thank You

SEATTLE, WA 98136

I am deeply opposed to having the Growler EA-18G airplane at the NAS Whidbey Island complex. It is detrimental to the sea life as well as to human beings living in the area.

Langley, WA 98260

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined "hazardous noise zone" threshold (i.e., an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month).

Langley, WA 98260

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Langley, WA 98260

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.g. Average Annual Day/Average Busy Day Noise Levels

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

Langley, WA 98260

The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data.

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports

Langley, WA 98260

1.a. Thank You
4.j. Other Reports

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts.

Langley, WA 98260

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Langley, WA 98260

1.a. Thank You

13.a. Environmental Justice Impacts

Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.

Langley, WA 98260

The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% overestimated use of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected.

1.a. Thank You

3.e. Field Carrier Landing Practice Patterns

3.f. Field Carrier Landing Practice Operation Totals

3.g. Field Carrier Landing Practice Evolutions and High Tempo

Langley, WA 98260

1.a. Thank You
4.p. Sleep Disturbance
4.r. Nonauditory Health Effects

The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.

Langley, WA 98260

The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.

1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects

Langley, WA 98260

1.a. Thank You
4.q. Potential Hearing Loss

The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated.

Langley, WA 98260

1.a. Thank You

4.r. Nonauditory Health Effects

The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

IN THE MATTER OF:
The Open House Public Meeting for the Draft Environmental
Impact Statement (EIS) for EA-18G "Growler" Airfield
Operations at Naval Air Station (NAS) Whidbey Island Complex

DATE TAKEN: Friday, December 9, 2016

PLACE: Coupeville High School
501 South Main Street
Commons
Coupeville, Washington

TIME: 4:00 p.m. to 7:00 p.m.

REPORTED BY: Mary Mejlaender, CCR No. 2056
Likkell & Associates
Court Reporters & Legal Video
2722 Colby Avenue
Suite 706
Everett, WA 98201
depos@likkellcourtreporters.com

LIKKEL & ASSOCIATES, COURT REPORTERS & LEGAL VIDEO
2722 Colby Avenue, Suite 706, Everett, WA, 98201

(425) 259-3330

1.a. Thank You

16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and
Landslides)

4.p. Sleep Disturbance

17 (The personal identifiable information disclosure
18 statement was read to the following commenter.)

19 MR. [REDACTED]: You read that to me. I was
20 advised of my rights.

21 My name is [REDACTED]. I'm 66. I live in the
22 Ledgewood community three miles south of the OLF. I've
23 lived there since 2012.

24 I am affected by the noise of flight operations
25 at OLF. When I first moved here the flight operations were

1 terrible. 12- to 13,000 operations at OLF every year.
2 COER, C-O-E-R, sued the Navy and those flight operations
3 dropped to 6,000 for two years, maybe three. I'm now being
4 informed that the Navy's options of flight operations out of
5 OLF will be at least doubling if not six times as many
6 operations at the airfield OLF. This will affect my life,
7 my wife, who gets up at 4:15 in the morning to go to work in
8 Seattle, and I get up with her, so sleeping at night will be
9 practically out of the question if there are that many
10 increases in the flights.

11 We had a landslide in Ledgewood in 2013 I
12 believe. The first four months of that year prior to that
13 landslide the tempo of operations at OLF had been increased.
14 There were over 6,000 events at OLF in the first four months
15 of that year. The ground was saturated from the excessive
16 amount of rain that we had during the wintertime and there
17 was a massive landslide about a half a mile from my house.
18 The result of that landslide were three properties were
19 condemned and another was destroyed. Another result of that
20 landslide is that my neighbors, my community sued the County
21 because of inadequate drainage. They won the case and the
22 drainage is being addressed by the County.

23 My point through one of the other EIS statements
24 was the tempo of operations during that rainy, wet season,
25 and the fact that the cliffs on Whidbey Island are not

1 stable. And this is a known fact. Our cliffs on the whole
2 island are not stable. And I made the contention that this
3 increased tempo of operations during the wettest part of the
4 year contributed to our landslide. So far I've not been
5 able to talk to a single individual here who has any
6 knowledge of that even being a possibility.

7 And another question I had regarding this is what
8 kind of seismic impact is caused every time a 50,000-pound
9 jet slams onto the concrete runway at OLF at 150 miles an
10 hour. There is a seismic impact. I would like to know what
11 it is and how it's transmitted. And in my opinion, when the
12 ground is very wet and we have this substrata of clay, that
13 just gives it that little extra nudge to start it moving,
14 which is what happened when our cliff fell off.

15 So what I would like is an actual study on the
16 effects of the impacts at OLF regarding that shock wave
17 being transmitted through the earth, the effect of the sound
18 on our cliffs, because I know the aircraft were flying right
19 over our cliffs. Despite of what it shows being their
20 flight path, I watch them. They fly right along our cliffs
21 before they actually go into our circuit, at low altitude,
22 less than 500 feet.

23 If the Navy is interested in actually learning
24 about that slide event, the University of Washington
25 Department of Geology has been investigating it ever since

1 it happened. I've seen and talked to numerous geologists
2 from the university on my beach studying the effects of the
3 slide and the actual make-up of -- of our -- of the earth
4 there. So there are a lot of experts who know what the
5 situation is, and they're at the Department of Geology at
6 the University of Washington. The head of the department,
7 whose name I don't know, will know everybody who's studying
8 it. One of the guys I was talking to, he was writing his
9 doctoral thesis on that slide. So there -- it's being
10 studied, but whether or not the Navy has any inkling of the
11 results of those studies, I don't know, but I think the Navy
12 should.

13 So in my opinion, if flight operations are
14 increased by a factor of two or a factor of six, which
15 appears to be one of the options, our cliffs will fall down
16 more. They're unstable, and this activity does not
17 contribute to keeping them standing. Thank you.

18 * * *

Sequim, WA 98382

1.a. Thank You

7.d. Recreation and Wilderness Analysis and Study Area

Although I understand the Navy's interest in keeping current with electronic warfare, I don't feel Whidby island is an area that is an area that should have a larger presence of the Growlers. Nearby Clallam County is home to national forest and parks where we enjoy one of the few remaining quiet places in nature, and the sound of the growlers is not compatible.

Olympia, 98502

1.a. Thank You

4.r. Nonauditory Health Effects

This area is special to me as a veteran. I want to be free of the sounds of jets that trigger my PTSD. Please refrain from flying these jets.

1.a. Thank You

Coupeville, WA 98239

I live less than a mile from the field directly east of it in-fact and have no sound issues with jets flying day or night. We need this field open to train our aircrews to fight the good fight. If we lose this training asset we will not be as well equipped to fight terror and what other bidding our country has us do.

January 6, 2017

EA-18G EIS Project Manager
Naval Facilities Engineering Command (NAVFAC) Atlantic
Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

Re: Public Comment Against Draft EIS for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island

Dear Sir/Madam:

I am a resident of Clallam County Washington. I am extremely concerned about the effects of noise generated by the Electronic Attack Squadron (VAQ) 132 over the Olympic National Park and surrounding areas including populated areas. Every effort should be made to mitigate the noise to prevent injury to habitat for humans and other animals. I understand that there is no need for the pilots to be at an elevation (other than for landing and take-off) lower than ten-thousand feet, but pilots have been well below this elevation numerous times as evidenced by the flight records kept by the Whidbey NAS and by many complaints received by NAS Whidbey. Can you find a way to assure citizens that flights will not be lower than the ten-thousand foot level?

I also understand that a similar aircraft practices in Mountain Home Idaho AFB, home of the 366 Airforce wing. In fact, the 390th Electronic Combat Squadron, which I believe includes the Electronic Attack Squadron, located at Naval Air Station Whidbey Island, Wash., is assigned to the 366th Operations Group out of Mountain Home AFB. Is the duplication of such training facilities necessary?

I am sure you are aware of the December 16, 2016 incident at NAS Whidbey. The US Navy (USN) has grounded its fleet of Boeing F/A-18E/F Super Hornet and EA-18G Growler combat aircraft while it investigates the cause of a ground incident on 16 December that injured two flight-crew.

The incident at Naval Air Station (NAS) Whidbey Island in Washington state saw an EA-18G Growler from Electronic Attack Squadron (VAQ) 132 experience an unspecified "on-deck emergency" that required both crew members to be airlifted to hospital, a USN statement said.

The Olympic National Park is a National Heritage site, and citizens on the Olympic Peninsula deserve reasonable noise mitigation. I strongly urge appropriate, affective noise mitigation and high altitude only flights which the current draft EIS does not adequately address or resolve.

Sincerely,

Name: _____

Address: _____

WA 98362

cc: Hon. Derek Kilmer, U.S. Congressman, 6th CD, WA State

- 1.a. Thank You
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 2.a. Purpose and Need
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 4.l. Points of Interest
- 4.t. Noise Mitigation
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children



Public Meeting Comment Form

Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex*.

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) **Provide written comments** at today's public meeting; (2) **Speak with the stenographer**, who will record your comments; (3) **Submit your comments on the project website** at www.whidbeyeis.com; or (4) **Write your comments and mail them to:** Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

1. Name [REDACTED]

2. Organization/Affiliation _____

3. Address [REDACTED] Port Townsend, 98368

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

This EIS about the effect of increased Growler Operations on Whidbey Island is a segmented part of a larger scheme that includes the whole range of Electronic Warfare Activities, and should only be looked at in a wholistic way. Yes, this increase may not affect the hearing of people in Port Townsend, but it does affect our mental health and the health of our

Please print • Additional room is provided on back

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

All comments must be received by January 25, 2017. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

environment & community. Along with all the increases in Growler use along with EW exercises and dropping sonar bombs in the waters of W. Jefferson, Clallam and Grays Harbor Counties, the combined effect on the environment will harm marine mammals who are dependent on eco-location to survive, will harm song birds and other mammals of the Olympics. It also visibly increases the stress of domesticated animals such as dogs and horses. Finally I hope that the effect of all these flights on the climate, that their carbon footprint is adequately offset by a reduction in other military activities.

For more information, please visit the project website at whidbeyeis.com

Please print

Please drop this form into one of the comment boxes here at the public meeting or mail to:

Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Clinton, WA 98236

Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of these wells. Leakage of PFAS in storage or use in a crash event is a hugely relevant environmental impact must be addressed and the public must be given the opportunity to comment.

1.a. Thank You
4.t. Noise Mitigation

Anacortes, WA 98021

Having read through a large portion of the documents, it seems almost hopeless that the public's comments will have any effect. The noise is already so bad that it is discouraging to try and voice my comments. I am firmly against any increase in noise in this area. My retirement in this area is bound to suffer greatly. Please don't approve any increase in air traffic or noise. If traffic does have to increase, please focus on developing quieter engines - the nation's security should not be borne on the shoulders of people within a 15-20 mile radius of the Navy base. Thank you, [REDACTED] (Anacortes, WA)

1.a. Thank You

Greenbank, WA 98253

With these new jets "Growlers", we are now hearing them do their "touch and go" at my house. prior to the Growlers we did not hear the jets practicing at OLF. Not something we want to hear.

Langley, WA 98260

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Coupeville, WA 98239

I oppose any increase in the number of annual operations at OLF Coupeville. The Coupeville community is already bearing far more than its share of the burden of military training. Any one of the three proposed scenarios would decrease property values, damage the physical and mental health of residents and visitors, and pose an existential risk to the viability of the community itself. In addition, by locating our entire electronic warfare asset in one place, the Navy would make this small island an obvious and highly vulnerable target in future military conflicts. This would be a tactically foolish choice that would weaken the strategic security of our entire military. Please find another location for any additional Growler operations. Thank you.

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 12.j. Property Values
- 12.n. Quality of Life
- 2.a. Purpose and Need
- 2.d. Program of Record for Buying Growler Aircraft
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 4.r. Nonauditory Health Effects
- 7.a. Regional Land Use and Community Character

Coupeville, WA 98239

1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects

The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.

Coupeville, WA 98239

1.a. Thank You
4.q. Potential Hearing Loss

The DEIS fails to address the effects of noise on hearing and tinnitus and consequential medical costs associated with hearing loss by stating that civilians would need to be exposed to noise emitted by the Growlers for 40 years before there is a permanent shift in hearing. This defies all scientific and audiological evidence to the contrary, even by the US military itself. Hearing loss and tinnitus are the MOST compensated injuries in the military and increasing annually (US Dept. of Veteran Affairs.) That and failure to address the effects of impact or sudden noise must be more fully delineated.

Coupeville, WA 98239

1.a. Thank You

4.r. Nonauditory Health Effects

The DEIS fails to adequately address the effects of high noise levels during pregnancy provoking significantly higher risk for smaller newborns, gestational hypertension, cognitive abnormalities, and permanent hearing loss.

Coupeville, WA 98239

The DEIS noise levels were based on about 30% of the proposed 8800 to 35,000+ operations at OLFC being conducted on Path 14. Since 2013, when the transition to Growlers was complete, the highest use of Path 14 has been about 2 to 10% because, as base commander Captain Nortier explained Growlers are only rarely capable of using Path 14. The DEIS 30% overestimated use of path 14 greatly understates the DNL noise impacts for path 32 and overstates the impacts on Path 14. This mistake must be corrected.

- 1.a. Thank You
- 3.e. Field Carrier Landing Practice Patterns
- 3.f. Field Carrier Landing Practice Operation Totals
- 3.g. Field Carrier Landing Practice Evolutions and High Tempo

Coupeville, WA 98239

- 1.a. Thank You
- 4.p. Sleep Disturbance
- 4.r. Nonauditory Health Effects

The DEIS fails to address the potential effects of sleep disturbance due to Growler overflights, despite the admission that there will be an increase in the "percent probability of awakening for all scenarios..." While music torture is still permitted under US law, the United National Convention against Torture defines torture as "any act by which severe pain of suffering, whether physical or mental..." Sleep disturbance results in serious physical and emotional symptoms such as cognitive impairment, impaired immune system, adverse birth outcomes, risk of heart disease, risk of diabetes, not mentioning the number of work hours/days lost from lack of sleep. The DEIS must forthrightly address the impacts of sleep disturbance on residences affected by OLFC night operations.

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

Perfluoroalkyl substances (PFAS) have been discovered in numerous wells adjacent to OLFC and are believed attributable to fire-retardant foam use at OLFC. The DEIS, however, dismissed addressing the past, present, and future impacts and problems associated with PFAS, even though the EPA has set a Health Advisory that has been exceeded by 16-fold in some of these wells. Leakage of PFAS in storage or use in a crash event is a hugely relevant environmental impact must be addressed and the public must be given the opportunity to comment.

Coupeville, WA 98239

1.a. Thank You
7.c. Noise Disclosure

Island County land-use policies, plans, as reflected by the construction permits issued, have largely defied the Navy's 2005 AICUZ directives for Outlying Field Coupeville, such as no residences in a noise zone 2. Whether due to willful intent to ignore by the County or to lack of Navy assertiveness, it aptly demonstrates the meaningless and ineffectiveness of the AICUZ and attendant land-use provisions in the DEIS. Given the alternatives under consideration in the DEIS, the Navy should be immediately advocating to the County to place a moratorium on all construction permits not compatible with the 2005 AICUZ and DEIS land-use stipulations until the final EIS is approved.

Coupeville, WA 98239

The two most dangerous aspects of flying are the approach, landing and takeoff -- in other words most of the OLFC flight path. The risks are significant (a) because of significant encroachment problems, (b) because OLFC is about 49,000 acres below and the runway about 3000 feet short of standard for Growlers, (c) because the pilots are mostly students flying the F-18 airframe which is 5.5 times more likely to crash than its EA-6B (Prowler) predecessor, and (d) FCLP operations occur at low elevations that increase likelihood of bird strikes with the significant shoreline bird population. These risks cannot be mitigated other than by moving the FCLPs off a suitable 21st century off-Whidbey site.

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

Coupeville, WA 98239

1.a. Thank You

13.a. Environmental Justice Impacts

Environmental Justice analysis overlooked the fact that farm workers, gardeners, and recycle center workers are almost entirely composed of low-income and/or ethnic minorities, and because they must work outside, they are disproportionately affected by overhead Growler noise.

Coupeville, WA 98239

1.a. Thank You
4.q. Potential Hearing Loss

The Navy has adopted standards that protect their personnel from health and hearing harm due to excessive noise, yet these standards were ignored by the DEIS for civilians exposed to the same or greater levels of noise. This DEIS needs to examine how many civilians would receive exposure doses that exceed the Navy's defined hazardous noise zone threshold (i.e., "an area where the 8-hour time-weighted average exceeds 84 dBA [or 140 dB peak sound pressure level, SPL, for impact or impulse noise] for more than 2 days in any month").

Coupeville, WA 98239

1.a. Thank You

4.r. Nonauditory Health Effects

The DEIS misconstrued important finding of the National Park Service's 2015 noise study at Ebey's Landing Historic National Reserve and obfuscated forthright analysis of the impacts on visitor experience. That misconstruct has to be credibly revised to properly characterize the real impacts.

Coupeville, WA 98239

1.a. Thank You

4.r. Nonauditory Health Effects

Much like the tobacco industry did years ago, the DEIS selectively and reprehensively cites and relies on out-of-date medical research findings on impacts of noise on human health that are at odds with the overwhelming body of contemporary research. This obfuscation renders the DEIS findings incomplete and disingenuous and demands an honest, complete, forthright evaluation of the contemporary formal medical literature.

Coupeville, WA 98239

The DEIS claim that the JGL noise study was “flawed” is disingenuous and unsupported, whereas in actuality the Wyle modeled noise levels have not been validated with on-site noise data.

- 1.a. Thank You
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports

Coupeville, WA 98239

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act (NEPA) by failing to judiciously examine off-Whidbey Island sites to conduct flight carrier land practice (FCLP).

Coupeville, WA 98239

- 1.a. Thank You
- 4.d. Day-Night Average Sound Level Metric
- 4.g. Average Annual Day/Average Busy Day Noise Levels

The annual Day-Night Noise Level (DNL) noise contours depicted in the DEIS are misleading and fallacious for two reasons: (1) inappropriate use of 365-day averaging rather busy-day averaging, and (2) holding up as scientifically valid an outdated, misleading, and scientifically invalidated DNL threshold for high noise annoyance.

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated:

- Risk and effects of a Growler crash and of the aqueous film forming foam that will be used for firefighting.

Coupeville, WA 98239

1.a. Thank You
14.d. Bridges and Ferries

Access to the base. Many NASWI personnel live off of Whidbey Island and commute via the ferries and Deception Pass Bridge. Disruption of service or failure of access of these will pose a major operational risk. Indeed, when all Coupeville to Port Townsend ferries were summarily removed from service on 11/21/2008 it caused a major transportation crisis. The 82-year old Deception Pass bridge is a critical access point risk that must be evaluated. The bridge has been identified as in-need of a seismic retrofit.

1.a. Thank You
12.c. Socioeconomic Impacts

Coupeville, WA 98239

The “positive” economic effects of short-term construction, increased payroll, and increased tax revenues from an increasing population are quantified by the DEIS. However, that economic gain is not balanced against the certain economic losses of a reduced tax base due devaluation, population migration away from noise in the region, loss of business, reduction in migration and investment in property by retirees and others of wealthier demographics who would, otherwise, move to Whidbey for the environment and quality of life, and support sustainable, local business, such as organic farming, custom home building, and renewable energy. The EIS needs to evaluate the economic losses associated with the proposal.

Coupeville, WA 98239

Impact to natural resources is not addressed adequately in the DEIS. Impacts to the following should be addressed more completely in the EIS: • Bird populations & migration. Whidbey Island is a major bird migration route within the Pacific Flyway.

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.l. Bird Migration
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Coupeville, WA 98239

Impact to natural resources is not addressed adequately in the DEIS. Impacts to the following should be addressed more completely in the EIS: • Fish and animal habitat.

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.m. Impacts to Marine Species and Habitat
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Coupeville, WA 98239

1.a. Thank You

7.g. Ebey's Landing National Historical Reserve

Impact to natural resources is not addressed adequately in the DEIS. Impacts to the following should be addressed more completely in the EIS: • Ebey's Landing National Historic Reserve, including the rural soundscape & visitor experience.

Coupeville, WA 98239

1.a. Thank You
11.d. Per- and Polyfluoroalkyl Substances
6.f. Fuel Dumping

Impact to natural resources is not addressed adequately in the DEIS. Impacts to the following should be addressed more completely in the EIS: • Surface and ground water quality, including from Growler fuel dumping, crashes, and crash response.

Coupeville, WA 98239

1.a. Thank You
6.f. Fuel Dumping

The frequency, quantity, and effects of fuel dumping from Growler operations are not addressed in the DEIS.

Coupeville, WA 98239

Outdoor Recreation impacts are not addressed adequately. Whidbey Island quality of life and tourism is highly tied to outdoor recreation. Increased Growler operations will significantly impact recreation. The EIS should address the following: • Activities: Outdoor competitive sports (school and other), walking, hiking, running, fishing, hunting, camping, road bicycling, mountain biking, kayaking, bird watching, historical tours, dog walking, picnicking, beach combing, gardening, swimming.

1.a. Thank You

7.d. Recreation and Wilderness Analysis and Study Area

7.j. Impacts on Outdoor Sports

Coupeville, WA 98239

Outdoor Recreation impacts are not addressed adequately. Whidbey Island quality of life and tourism is highly tied to outdoor recreation. Increased Growler operations will significantly impact recreation. The EIS should address the following: • Locations: Schools; sporting fields, tracks, etc; State Parks, County Parks, City Parks; Ebey's Landing National Historical Reserve; Kettles Trail system, off-Leash dog parks, private community swimming pools, wildlife viewing areas (such as Crockett Lake & Keystone Spit); rural road networks, residences.

1.a. Thank You

7.d. Recreation and Wilderness Analysis and Study Area

7.j. Impacts on Outdoor Sports

1.a. Thank You

5.a. Accident Potential Zones

Coupeville, WA 98239

Effect of Accident Potential Zones (APZ) at OLF are not sufficiently evaluated. Section 4.3.2.1 in the DEIS describes conceptual APZ's at OLF Coupeville. Yearly operations at the OLF were below 5000 at the time of the 2005 AICUZ study, and APZ's were unwarranted at the time. However, annual operations have exceeded 5000 since 2009. Any scenario (even no action) will require the Navy recommend establishing APZ's at OLF Coupeville. • The EIS should describe in detail the consequences of establishing APZ's at the OLF including: lowering of property values; restriction of property and development rights; accident potential risk for people, homes, businesses, and institutions located under APZ's; loss in property taxes to Island County and the Town of Coupeville; and the potential loss of business and economic consequences for businesses in and around the OLF.

Coupeville, WA 98239

- 1.a. Thank You
- 5.a. Accident Potential Zones

Actual, binding APZ's (Accident Potential Zones) should be drawn for each scenario described in the EIS. Homeowners, businesses, tax-supported agencies, elected representatives, realtors, planners, farmers, and other stakeholders all deserve to know what to expect.

1.a. Thank You
3.j. Flight Simulators

Coupeville, WA 98239

OLF operations are misrepresented as historically normal in Section 1.4. Section 4.1.2.1 misstates that the proposed action "represents a level of operation similar to historic levels of operations experienced over the life of the airfield". The graph of Previous Airfield Operations for Ault Field and OLF Coupeville on page 1-6 shows that from 1976 through 2015 OLF Coupeville experienced an average of approximately 13,200 operations per year. A more representational average would be for the 18 years since the A-6 Intruder stopped flying in 1997, which is approximately 5,500 operations per year. The proposed increase of 29,000 operations under Alternative A would be a total of approximately 34,500 operations per year. At no time in the history of OLF Coupeville has the number of operations been at the proposed level under this Alternative. This action would be, in fact, an increase of approximately 530% over the average operations since 1997. The proposed increase of 2,700 operations under Alternative C would be a total of 8,200 operations per year. This would represent a 49% increase over the historical average of FCLP operation at OLF Coupeville since 1997. Thus, the EIS should state that, under any scenario, the proposed action represents a significant change in the number of operations at OLF Coupeville.

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated:

- Risk and effects of a Growler crash and of the aqueous film forming foam that will be used for firefighting.

Coupeville, WA 98239

- 1.a. Thank You
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated: • The susceptibility of geology and soils in the potential aircraft accident zones surrounding the OLF to infiltration of pollutants into the ground water.

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated:

- No alternative water source for Town of Coupeville and surrounding community.

Coupeville, WA 98239

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated: • Viability, cost, and impact of remediation of groundwater pollutants and of providing alternative drinking water source.

1.a. Thank You

11.a. Groundwater

11.d. Per- and Polyfluoroalkyl Substances

12.k. Compensation to Citizens for Private Property

Coupeville, WA 98239

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated:

- The full short and long-term impacts, including environmental, cultural, & financial.

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.c. Socioeconomic Impacts

Coupeville, WA 98239

Noise modeling used in DEIS is not appropriate for and representative of noise made by Growlers. • DoD's Strategic Environmental Research and Development Program (SERDP) found NOISEMAP ver 7.2 to be outdated and possibly not able to provide "legally defensible aircraft noise assessments of current and future aircraft operations". The modeling program was developed to assess civilian airport noise. The noise evaluation model used in the EIS should be appropriate to evaluate Growler noise on the surrounding community.

1.a. Thank You

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

Coupeville, WA 98239

- 1.a. Thank You
- 4.a. General Noise Modeling

Noise modeling used in DEIS is not appropriate for and representative of noise made by Growlers. • The Naval Research Advisory Committee has acknowledged that variations in noise from tactical aircraft measurement standards are not addressed in standards for commercial aircraft, and that there are no standards for acquiring near-field aircraft noise data. The EIS evaluation should account for variations in noise measured from Growlers compared to commercial aircraft.

Coupeville, WA 98239

Noise averaging (Ldn) is inappropriate for Growler FCLP flights at OLF Coupeville, which occur sporadically. Studies by Borsky and Stephens show that maximum dBA readings are better indicators of community annoyance than Ldn. Generally frequent maximum sounds of 70 dBA or greater correlate in a linear fashion with community annoyance. The Coupeville community regularly experiences maximum noise exceeding 90 dBA, often exceeding 100 dBA, near and around the OLF flight path. The EIS should show maximum noise contours based on this metric. • Borsky, PN: Integration of Multiple Aircraft Noise Exposure Over Time by Residents Living Near US Air Force Bases, in Noise as a Public Health Problem, Proceeding of the 4th International Congress, Giovanni Rossi, MD, editor, Milano, Italy, Volume II, pp. 1049-1060, 1983. • Stephens, DG, Powell, CA: Human Response to Aircraft and Other Noise Events, in Noise as a Public Health Problem, Proceeding of the 4th International Congress, Giovanni Rossi, MD, editor, Milano, Italy, Volume II, pp. 1061-1072, 1983.

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.m. Supplemental Metrics

Coupeville, WA 98239

The noise model and DEIS doesn't sufficiently assess the physical and mental harm, annoyance, disturbance to life and business, childhood learning, economy, tourism from noise.

- 1.a. Thank You
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.n. Quality of Life
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects

Coupeville, WA 98239

The noise model and DEIS doesn't sufficiently assess the physical and mental harm, annoyance, disturbance to life and business, childhood learning, economy, tourism from noise.

- 1.a. Thank You
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.n. Quality of Life
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects

Coupeville, WA 98239

OSHA maximum noise exposure limits are 110 dB for 30 min per day, or 115 dB for 15 min per day (slow response). Growler operations at the OLF have been measured exceeding these sound levels at several locations, including my home and adjacent business, and at Rhododendron Park. Thus, the proposed action may exceed OSHA guidelines. The EIS should evaluate noise exposure based on OSHA guidelines, and state that OSHA noise exposure limits may be exceeded.

1.a. Thank You

4.f. Noise Measurements/Modeling/On-Site Validation

4.m. Supplemental Metrics

4.q. Potential Hearing Loss

Coupeville, WA 98239

- 1.a. Thank You
- 4.t. Noise Mitigation
- 4.u. Local Noise Ordinances

Washington State law (WAC 296-817-20025) requires that employers in the State post warning signs in areas where noise levels will exceed 115 dB. The EIS should state that the Navy will make public notice, and request local jurisdictions to post warning signs, in public areas where noise levels exceed 115 dB.

Coupeville, WA 98239

A-weighted sound measurements (dBA) are used in the noise analysis of the DEIS, which emphasizes the 1,000 to 4,000 Hz range (DEIS at p. A-142). However, the Growler emits substantial low-frequency sound, not reported by dBA. See Environmental Assessment for the Expeditionary Transition of EA-6B Prowler Squadrons to EA-18G Growler at Naval Air Station Whidbey Island, Oak Harbor, Washington, Final, October 2012 (the "2012 EA"), Department of the Navy, pages 38-39, Wyle report WR 10-22. As stated therein, "NASWI has received complaints of building rattle/vibration due to Growler events . . . With its increased low- frequency content, the Growler takeoff events have higher potential to cause noise-induced vibration." Frequency profiles, shown on page 39 of that report, indicate substantial sound levels at frequencies below 100 Hz. dBA sound levels are, therefore, an incomplete measurement of Growler noise during FCLP operations, which leads to underestimating perceived sound levels and effects on people and property. The final EIS should clearly convey the lack of correlation between A-weighted measurements and the Growler sound spectrum, or should adopt a different, or additional, measurement standard.

1.a. Thank You

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

Coupeville, WA 98239

1.a. Thank You
4.j. Other Reports

The EIS should fully discuss the 2016 National Park Service (NPS) sound monitoring report in Ebey's Landing National Historic Reserve (ELNHR), as compared to the Day-Night Average Sound Level modeling method used (DEIS, pg 1-23). The actual sound measurements made in the NPS report suggest that the noise predicted by the modeling used in the DEIS could be dramatically under estimated.

Coupeville, WA 98239

1.a. Thank You
2.I. No Action Alternative

Alternatives to increasing Growler operations at the Coupeville OLF should be fully addressed in the EIS. The discussion should include consideration of the following: • The “No Action” alternative in the DEIS was dismissed as not meeting the Navy’s mission objectives, without a full and objective evaluation of alternatives. This is in violation of NEPA requirements. By not considering viable alternatives that could meet the Navy’s mission without increasing operations at OLF Coupeville the DEIS appears to justify a predetermined decision.

Coupeville, WA 98239

1.a. Thank You
2.k. Range of Alternatives

Alternatives to increasing Growler operations at the Coupeville OLF should be fully addressed in the EIS. The discussion should include consideration of the following: • Other landing strips in the region were dismissed as not viable for reasons including not meeting Navy safety standards for OLF's. This evaluation neglected the fact that OLF Coupeville, itself, does not meet Navy OLF standards.

Coupeville, WA 98239

Alternatives to increasing Growler operations at the Coupeville OLF should be fully addressed in the EIS. The discussion should include consideration of the following: • Detachment training options, at other military air stations that meet standards for FCLP training. Such detachment training is presently being conducted for squadrons from NASWI.

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

1.a. Thank You
4.t. Noise Mitigation

Coupeville, WA 98239

- Growler noise mitigation and abatement methods, operations and techniques should be thoroughly considered in the EIS. The DEIS discusses aircrew compliance and performance of policy, procedures, course rules, “good common sense”, and “prudent airmanship techniques” (pg 3-30) as established methods to minimize noise impacts. Additionally, “NAS Whidbey Island has historically worked with elected officials from surrounding communities to best minimize impacts where practicable, including not flying at the OLF on weekends and minimizing flight activity during major school testing dates and major community events.” • Technical modifications to the Growler for noise abatement should be discussed.

Coupeville, WA 98239

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated

Moving some of the OLF FCLP training operations to other base locations in squadron detachment deployments should be discussed.

Coupeville, WA 98239

1.a. Thank You
4.t. Noise Mitigation

The historical precedent to not fly at the OLF on weekends, etc. should clearly be stated as a voluntary Navy guideline and not compulsory. I.E. Growlers may be scheduled to fly at the OLF whenever the NASWI command determines it is required for the mission.

Coupeville, WA 98239

Risks of single siting of all of the electronic warfare aircraft for the entire U.S. military mission at NASWI is not sufficiently evaluated in the DEIS. Such risks should be evaluated and include:

- Seismic events, including consequences of shaking, tsunami, liquefaction and ground subsidence from a major Cascadia Fault subduction-zone earthquake. Section 3.14.2.3 in the DEIS inadequately and erroneously states that the “most recent apparent significant activity was approximately 18,000 years ago”. In fact, there is substantial evidence that a major earthquake affecting the entire Puget Sound region occurred as recently as the 1700’s. See Atwater, Brian F. et al., *The Orphan Tsunami of 1700: Japanese Clues to a Parent Earthquake in North America*, 2nd ed., United States Geological Survey and University of Washington Press, 2015. The best available science points to seven Cascadia Fault earthquakes having occurred in the last 3,500 years, with an average interval of 500 years. Some geologists estimate a 10% chance of such a major earthquake, with up to a magnitude of 9, occurring within the next 50 years. This seismic risk must be properly evaluated in the EIS.

1.a. Thank You

16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)

Coupeville, WA 98239

Risks of single siting of all of the electronic warfare aircraft for the entire U.S. military mission at NASWI is not sufficiently evaluated in the DEIS. Such risks should be evaluated and include: • Terrorism, including access vulnerability of Ault Field and OLF. State Highway 20 borders the east side of OLF Coupeville. Patmore Road crosses the North end of runway 32 at the OLF. Keystone road borders the West boundary of the OLF. All these roads very close to and within eyesight of the runway. Additionally, the bridge, ferries, and NASWI Base utilities (water, electricity, gas) are an easy target for terrorists.

- 1.a. Thank You
- 1.e. Risk of Terrorist Attack
- 2.a. Purpose and Need
- 2.d. Program of Record for Buying Growler Aircraft
- 3.a. Aircraft Operations

Coupeville, WA 98239

1.a. Thank You
14.d. Bridges and Ferries

Risks of single siting of all of the electronic warfare aircraft for the entire U.S. military mission at NASWI is not sufficiently evaluated in the DEIS. Such risks should be evaluated and include:

- Access to the base. Many NASWI personnel live off of Whidbey Island and commute via the ferries and Deception Pass Bridge. Disruption of service or failure of access of these will pose a major operational risk. Indeed, when all Coupeville to Port Townsend ferries were summarily removed from service on 11/21/2008 it caused a major transportation crisis. The 82-year old Deception Pass bridge is a critical access point risk that must be evaluated. The bridge has been identified as in-need of a seismic retrofit.

Coupeville, WA 98239

1.a. Thank You
3.j. Flight Simulators

Risks of single siting of all of the electronic warfare aircraft for the entire U.S. military mission at NASWI is not sufficiently evaluated in the DEIS. Such risks should be evaluated and include: • Damage or maintenance to Ault Field runways will affect readiness and ability to deploy aircraft, or conduct routine training, leaving much of the military's EW aircraft grounded.

Coupeville, WA 98239

Risks of single siting of all of the electronic warfare aircraft for the entire U.S. military mission at NASWI is not sufficiently evaluated in the DEIS. Such risks should be evaluated and include:

- Utilities are vulnerable. The NASWI base and Oak Harbor city water supply cross the Deception Pass Bridge. The entire electricity supply for Whidbey Island crosses at Deception Pass – there is not a secondary supply route. The natural gas supply to North Whidbey Island, including the Base, also crosses at Deception pass. A single, catastrophic event at Deception Pass could affect all these utilities, and operations at NASWI.

1.a. Thank You
1.e. Risk of Terrorist Attack
14.d. Bridges and Ferries

Coupeville, WA 98239

Expected crash frequency and accident potential of crashes of the Growler is not addressed adequately in the DEIS. Environmental impacts resulting from a crash are not addressed. There are well-documented crashes in the Growler, and its sister aircraft the Hornet, that can be used to estimate the expected frequency of mishaps. The statement in section 4.3.2.1 that "While it is generally difficult to project future safety/mishap rates....the Growler has a well-documented and established safety record..." is subjective and wholly inadequate. The EIS should include detailed crash risk analysis including for the following: Sole-source drinking water aquifers, homes, businesses, schools, hospital, County and City governments, Island Transit center, County Solid waste facility, disruption to emergency response agencies (Sheriff, hospital, EMS), weather conditions and BASH hazard. The crash risk assessment should include factors specific for the expected mission at NASWI, such as: training new pilots, night operation, the OLF being 2,600 feet short of Navy regulation, the proximity of State Highway and County Roads to the OLF.

1.a. Thank You

5.a. Accident Potential Zones

5.d. Environmental Health Risks and Safety Risks to Children

Coupeville, WA 98239

Expected crash frequency and accident potential of crashes of the Growler is not addressed adequately in the DEIS. Environmental impacts resulting from a crash are not addressed. There are well-documented crashes in the Growler, and its sister aircraft the Hornet, that can be used to estimate the expected frequency of mishaps. The statement in section 4.3.2.1 that "While it is generally difficult to project future safety/mishap rates....the Growler has a well-documented and established safety record..." is subjective and wholly inadequate. The EIS should include detailed crash risk analysis including for the following: Sole-source drinking water aquifers, homes, businesses, schools, hospital, County and City governments, Island Transit center, County Solid waste facility, disruption to emergency response agencies (Sheriff, hospital, EMS), weather conditions and BASH hazard. The crash risk assessment should include factors specific for the expected mission at NASWI, such as: training new pilots, night operation, the OLF being 2,600 feet short of Navy regulation, the proximity of State Highway and County Roads to the OLF.

1.a. Thank You

5.a. Accident Potential Zones

5.d. Environmental Health Risks and Safety Risks to Children

Coupeville, WA 98239

- 1.a. Thank You
- 4.l. Points of Interest
- 4.q. Potential Hearing Loss

Hearing damage: Many children live, attend school, and play within areas impacted by this proposal, in which increased noise will cause hearing damage. The National Institute of Health (NIOSH, [https://blogs.cdc.gov/niosh-science- blog/2016/02/08/noise](https://blogs.cdc.gov/niosh-science-blog/2016/02/08/noise)) states that the maximum daily noise dose is reached in 15 min at 100 dB and, that for every 3 dB increase in noise, the allowable exposure time is reduced by half. By these guidelines the maximum daily noise exposure is 3 minutes at 109 dB. This exposure level is currently common in a wide area of central Whidbey Island near the OLF. The proposed action will dramatically increase likely hearing damage to children.

Coupeville, WA 98239

1.a. Thank You
4.t. Noise Mitigation

Technical modifications to the Growler for noise abatement should be discussed.

Coupeville, WA 98239

1.a. Thank You
4.t. Noise Mitigation

Technical modifications to the Growler for noise abatement should be discussed.

Coupeville, WA 98239

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated

Moving some of the OLF FCLP training operations to other base locations in squadron detachment deployments should be discussed.

Coupeville, WA 98239

1.a. Thank You
4.t. Noise Mitigation

The historical precedent to not fly at the OLF on weekends, etc. should clearly be stated as a voluntary Navy guideline and not compulsory. I.E. Growlers may be scheduled to fly at the OLF whenever the NASWI command determines it is required for the mission.

Coupeville, WA 98239

Risks of single siting of all of the electronic warfare aircraft for the entire U.S. military mission at NASWI is not sufficiently evaluated in the DEIS. Such risks should be evaluated and include: • Seismic events, including consequences of shaking, tsunami, liquefaction and ground subsidence from a major Cascadia Fault subduction-zone earthquake. Section 3.14.2.3 in the DEIS inadequately and erroneously states that the “most recent apparent significant activity was approximately 18,000 years ago”. In fact, there is substantial evidence that a major earthquake affecting the entire Puget Sound region occurred as recently as the 1700’s. See Atwater, Brian F. et al., *The Orphan Tsunami of 1700: Japanese Clues to a Parent Earthquake in North America*, 2nd ed., United States Geological Survey and University of Washington Press, 2015. The best available science points to seven Cascadia Fault earthquakes having occurred in the last 3,500 years, with an average interval of 500 years. Some geologists estimate a 10% chance of such a major earthquake, with up to a magnitude of 9, occurring within the next 50 years. This seismic risk must be properly evaluated in the EIS.

1.a. Thank You

16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)

Coupeville, WA 98239

Terrorism, including access vulnerability of Ault Field and OLF. State Highway 20 borders the east side of OLF Coupeville. Patmore Road crosses the North end of runway 32 at the OLF. Keystone road borders the West boundary of the OLF. All these roads very close to and within eyesight of the runway. Additionally, the bridge, ferries, and NASWI Base utilities (water, electricity, gas) are an easy target for terrorists. • Seismic events, including consequences of shaking, tsunami, liquefaction and ground subsidence from a major Cascadia Fault subduction-zone earthquake. Section 3.14.2.3 in the DEIS inadequately and erroneously states that the “most recent apparent significant activity was approximately 18,000 years ago”. In fact, there is substantial evidence that a major earthquake affecting the entire Puget Sound region occurred as recently as the 1700’s. See Atwater, Brian F. et al., The Orphan Tsunami of 1700: Japanese Clues to a Parent Earthquake in North America, 2nd ed., United States Geological Survey and University of Washington Press, 2015. The best available science points to seven Cascadia Fault earthquakes having occurred in the last 3,500 years, with an average interval of 500 years. Some geologists estimate a 10% chance of such a major earthquake, with up to a magnitude of 9, occurring within the next 50 years. This seismic risk must be properly evaluated in the EIS.

1.a. Thank You

1.e. Risk of Terrorist Attack

14.d. Bridges and Ferries

16.a. Geological Hazards (Seismic, Liquefaction, Bluff Erosion, and Landslides)

Coupeville, WA 98239

1.a. Thank You
14.d. Bridges and Ferries

Access to the base. Many NASWI personnel live off of Whidbey Island and commute via the ferries and Deception Pass Bridge. Disruption of service or failure of access of these will pose a major operational risk. Indeed, when all Coupeville to Port Townsend ferries were summarily removed from service on 11/21/2008 it caused a major transportation crisis. The 82-year old Deception Pass bridge is a critical access point risk that must be evaluated. The bridge has been identified as in-need of a seismic retrofit.

Coupeville, 98239

- 1.a. Thank You
- 3.a. Aircraft Operations

Damage or maintenance to Ault Field runways will affect readiness and ability to deploy aircraft, or conduct routine training, leaving much of the military's EW aircraft grounded.

Coupeville, WA 98239

Utilities are vulnerable. The NASWI base and Oak Harbor city water supply cross the Deception Pass Bridge. The entire electricity supply for Whidbey Island crosses at Deception Pass – there is not a secondary supply route. The natural gas supply to North Whidbey Island, including the Base, also crosses at Deception pass. A single, catastrophic event at Deception Pass could affect all these utilities, and operations at NASWI.

1.a. Thank You
1.e. Risk of Terrorist Attack
14.d. Bridges and Ferries

Coupeville, WA 98239

Expected crash frequency and accident potential of crashes of the Growler is not addressed adequately in the DEIS. Environmental impacts resulting from a crash are not addressed. There are well-documented crashes in the Growler, and its sister aircraft the Hornet, that can be used to estimate the expected frequency of mishaps. The statement in section 4.3.2.1 that "While it is generally difficult to project future safety/mishap rates....the Growler has a well-documented and established safety record..." is subjective and wholly inadequate.

1.a. Thank You

5.a. Accident Potential Zones

5.d. Environmental Health Risks and Safety Risks to Children

Coupeville, WA 98239

The EIS should include detailed crash risk analysis including for the following:
Sole-source drinking water aquifers, homes, businesses, schools, hospital, County and City governments, Island Transit center, County Solid waste facility, disruption to emergency response agencies (Sheriff, hospital, EMS), weather conditions and BASH hazard.

- 1.a. Thank You
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 5.a. Accident Potential Zones

Coupeville, WA 98239

- 1.a. Thank You
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children

The crash risk assessment should include factors specific for the expected mission at NASWI, such as: training new pilots, night operation, the OLF being 2,600 feet short of Navy regulation, the proximity of State Highway and County Roads to the OLF.

Coupeville, 98239

- 1.a. Thank You
- 4.o. Classroom Learning Interference

The impact on Children is not adequately addressed in the DEIS. The EIS should fully consider the following: • Learning disability: The DEIS describes increased interruptions at school, but not how this will impact learning. Learning disability outside of the classroom should also be evaluated.

Coupeville, 98239

Hearing damage: Many children live, attend school, and play within areas impacted by this proposal, in which increased noise will cause hearing damage. The National Institute of Health (NIOSH, <https://blogs.cdc.gov/niosh-science-blog/2016/02/08/noise>) states that the maximum daily noise dose is reached in 15 min at 100 dB and, that for every 3 dB increase in noise, the allowable exposure time is reduced by half. By these guidelines the maximum daily noise exposure is 3 minutes at 109 dB. This exposure level is currently common in a wide area of central Whidbey Island near the OLF. The proposed action will dramatically increase likely hearing damage to children.

- 1.a. Thank You
- 4.l. Points of Interest
- 4.q. Potential Hearing Loss

Coupeville, WA 98239

1.a. Thank You
4.q. Potential Hearing Loss

NIOSH (National Institute of Health) recommends that hearing protection be worn whenever noise levels exceed 85 dB(A), regardless of duration.

Coupeville, WA 98239

NIOSH (National Institute of Health) recommends that hearing protection be worn whenever noise levels exceed 85 dB(A), regardless of duration. This peak noise level will be realized at Coupeville schools, playfields, and Rhododendron park ball fields. The EIS should discuss how the Navy will provide hearing protection education, and how use and adoption of hearing protection most days throughout the year will be realized and expected hearing damage for the expected number of children who will not adopt/use hearing protection.

1.a. Thank You
4.m. Supplemental Metrics
4.q. Potential Hearing Loss

Coupeville, 98239

1.a. Thank You
4.I. Points of Interest

Noise impacts at the Coupeville Elementary School is evaluated in the DEIS. The EIS should also evaluate impacts at Coupeville High School and Middle School, which are significantly closer to the OLF noise source than the elementary school.

Coupeville, WA 98239

1.a. Thank You

7.j. Impacts on Outdoor Sports

The impact on children (as well as parents and coaches) using the ball fields at Rhododendron Park, including scheduling operations so as to minimize impacts and hearing damage. The analysis should recognize the difficulty of logistics and implementation for using hearing protection while practicing and playing soccer, baseball and softball games.

Coupeville, WA 98239

The Economic impact on the Central Whidbey community is not addressed adequately. Loss of tourism, property value loss, decline of population, & loss of business all need to be evaluated more carefully.

- 1.a. Thank You
- 12.c. Socioeconomic Impacts
- 12.h. Tourism
- 12.j. Property Values

Coupeville, WA 98239

1.a. Thank You
12.j. Property Values

Section 4.10.2.1 describes the likely loss of property value due to increased noise, but doesn't quantify what that total effect will be. The EIS should quantify the loss of property value.

Coupeville, WA 98239

1.a. Thank You

11.d. Per- and Polyfluoroalkyl Substances

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated:

- Risk and effects of a Growler crash and of the aqueous film forming foam that will be used for firefighting.

Coupeville, WA 98239

- 1.a. Thank You
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated: • The susceptibility of geology and soils in the potential aircraft accident zones surrounding the OLF to infiltration of pollutants into the ground water.

Coupeville, WA 98239

1.a. Thank You
11.d. Per- and Polyfluoroalkyl Substances

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated:

- No alternative water source for Town of Coupeville and surrounding community.

Coupeville, WA 98239

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated: • Viability, cost, and impact of remediation of groundwater pollutants and of providing alternative drinking water source.

- 1.a. Thank You
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property

Coupeville, WA 98239

The risk of water contamination to the sole-source aquifer in central Whidbey Island surrounding OLF Coupeville is not adequately addressed in the DEIS. The following should be evaluated:

- The full short and long-term impacts, including environmental, cultural, & financial.

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.c. Socioeconomic Impacts

Coupeville, WA 98239

Noise modeling used in DEIS is not appropriate for and representative of noise made by Growlers. • DoD's Strategic Environmental Research and Development Program (SERDP) found NOISEMAP ver 7.2 to be outdated and possibly not able to provide "legally defensible aircraft noise assessments of current and future aircraft operations". The modeling program was developed to assess civilian airport noise. The noise evaluation model used in the EIS should be appropriate to evaluate Growler noise on the surrounding community.

1.a. Thank You

4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources

4.c. Advanced Acoustic Model

Coupeville, WA 98239

- 1.a. Thank You
- 4.a. General Noise Modeling

The Naval Research Advisory Committee has acknowledged that variations in noise from tactical aircraft measurement standards are not addressed in standards for commercial aircraft, and that there are no standards for acquiring near-field aircraft noise data. The EIS evaluation should account for variations in noise measured from Growlers compared to commercial aircraft.

Coupeville, WA 98239

Noise averaging (Ldn) is inappropriate for Growler FCLP flights at OLF Coupeville, which occur sporadically. Studies by Borsky and Stephens show that maximum dBA readings are better indicators of community annoyance than Ldn. Generally frequent maximum sounds of 70 dBA or greater correlate in a linear fashion with community annoyance. The Coupeville community regularly experiences maximum noise exceeding 90 dBA, often exceeding 100 dBA, near and around the OLF flight path. The EIS should show maximum noise contours based on this metric. • Borsky, PN: Integration of Multiple Aircraft Noise Exposure Over Time by Residents Living Near US Air Force Bases, in Noise as a Public Health Problem, Proceeding of the 4th International Congress, Giovanni Rossi, MD, editor, Milano, Italy, Volume II, pp. 1049-1060, 1983. • Stephens, DG, Powell, CA: Human Response to Aircraft and Other Noise Events, in Noise as a Public Health Problem, Proceeding of the 4th International Congress, Giovanni Rossi, MD, editor, Milano, Italy, Volume II, pp. 1061-1072, 1983.

1.a. Thank You

4.d. Day-Night Average Sound Level Metric

4.m. Supplemental Metrics

Coupeville, WA 98239

The noise model and DEIS doesn't sufficiently assess the physical and mental harm, annoyance, disturbance to life and business, childhood learning, economy, tourism from noise.

- 1.a. Thank You
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted

Coupeville, WA 98239

Actual noise measurements have not been made by the Navy. Actual peak noise measurements should be made for the EIS, at several more POI's than identified in the DEIS. Individual sound measurements made by the National Park Service and others in the Central Whidbey community show noise levels far in excess of that predicted by DEIS modeling.

- 1.a. Thank You
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation

Coupeville, WA 98239

OSHA maximum noise exposure limits are 110 dB for 30 min per day, or 115 dB for 15 min per day (slow response). Growler operations at the OLF have been measured exceeding these sound levels at several locations, including my home and adjacent business, and at Rhododendron Park. Thus, the proposed action may exceed OSHA guidelines. The EIS should evaluate noise exposure based on OSHA guidelines, and state that OSHA noise exposure limits may be exceeded.

1.a. Thank You

4.f. Noise Measurements/Modeling/On-Site Validation

4.m. Supplemental Metrics

4.q. Potential Hearing Loss

Coupeville, WA 98239

- 1.a. Thank You
- 4.t. Noise Mitigation
- 4.u. Local Noise Ordinances

Washington State law (WAC 296-817-20025) requires that employers in the State post warning signs in areas where noise levels will exceed 115 dB. The EIS should state that the Navy will make public notice, and request local jurisdictions to post warning signs, in public areas where noise levels exceed 115 dB.

Coupeville, WA 98239

1.a. Thank You

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

A-weighted sound measurements (dBA) are used in the noise analysis of the DEIS, which emphasizes the 1,000 to 4,000 Hz range (DEIS at p. A-142). However, the Growler emits substantial low-frequency sound, not reported by dBA. See Environmental Assessment for the Expeditionary Transition of EA-6B Prowler Squadrons to EA-18G Growler at Naval Air Station Whidbey Island, Oak Harbor, Washington, Final, October 2012 (the "2012 EA"), Department of the Navy, pages 38-39, Wyle report WR 10-22. As stated therein, "NASWI has received complaints of building rattle/vibration due to Growler events . . . With its increased low- frequency content, the Growler takeoff events have higher potential to cause noise-induced vibration." Frequency profiles, shown on page 39 of that report, indicate substantial sound levels at frequencies below 100 Hz. dBA sound levels are, therefore, an incomplete measurement of Growler noise during FCLP operations, which leads to underestimating perceived sound levels and effects on people and property. The final EIS should clearly convey the lack of correlation between A-weighted measurements and the Growler sound spectrum, or should adopt a different, or additional, measurement standard.

Coupeville, WA 98239

1.a. Thank You
4.j. Other Reports

- The EIS should fully discuss the 2016 National Park Service (NPS) sound monitoring report in Ebey's Landing National Historic Reserve (ELNHR), as compared to the Day-Night Average Sound Level modeling method used (DEIS, pg 1-23). The actual sound measurements made in the NPS report suggest that the noise predicted by the modeling used in the DEIS could be dramatically under estimated.

Coupeville, WA 98239

1.a. Thank You
2.I. No Action Alternative

Alternatives to increasing Growler operations at the Coupeville OLF should be fully addressed in the EIS. The discussion should include consideration of the following: • The “No Action” alternative in the DEIS was dismissed as not meeting the Navy’s mission objectives, without a full and objective evaluation of alternatives. This is in violation of NEPA requirements. By not considering viable alternatives that could meet the Navy’s mission without increasing operations at OLF Coupeville the DEIS appears to justify a predetermined decision.

Coupeville, WA 98239

- 1.a. Thank You
- 2.k. Range of Alternatives

Other landing strips in the region were dismissed as not viable for reasons including not meeting Navy safety standards for OLF's. This evaluation neglected the fact that OLF Coupeville, itself, does not meet Navy OLF standards.

Coupeville, WA 98239

- 1.a. Thank You
- 2.k. Range of Alternatives

Other landing strips in the region were dismissed as not viable for reasons including not meeting Navy safety standards for OLF's. This evaluation neglected the fact that OLF Coupeville, itself, does not meet Navy OLF standards.

Coupeville, WA 98239


Alternatives to increasing Growler operations at the Coupeville OLF should be fully addressed in the EIS. The discussion should include consideration of the following: Detachment training options, at other military air stations that meet standards for FCLP training. Such detachment training is presently being conducted for squadrons from NASWI.

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

Coupeville, WA 98239

1.a. Thank You
4.t. Noise Mitigation

Growler noise mitigation and abatement methods, operations and techniques should be thoroughly considered in the EIS. The DEIS discusses aircrew compliance and performance of policy, procedures, course rules, "good common sense", and "prudent airmanship techniques" (pg 3-30) as established methods to minimize noise impacts. Additionally, "NAS Whidbey Island has historically worked with elected officials from surrounding communities to best minimize impacts where practicable, including not flying at the OLF on weekends and minimizing flight activity during major school testing dates and major community events."



January 07, 2017

EA-18G EIS Project Manager
 Naval Facilities Engineering Command
 (NAVFAC) Atlantic Attn: Code EV21/SS
 6506 Hampton Blvd.
 Norfolk, VA 23508

Dear Project Manager,

Regarding Environmental Effects associated with **ongoing and future EA-18 Growler** airfield operations at NAS Whidbey Island's Ault Field & Outlying Landing Field (OLF) Coupeville, WA: I am deeply disturbed about the Navy's plans to increase Growler operations at OLF Coupeville. These jets are louder than any previous jets. They disrupt tourism, environmental safety, and our lives. The new, much higher levels of operations proposed in the Draft Environmental Impact Statement (EIS) will destroy the quality of living, and the economy of the entire area.

Military aircraft fly full-throttle a few hundred feet over our house until after midnight. Navy plans will **increase Growler flights 600%**. Our house lies in the flight path of jets, flying under full thrust with no noise suppression.

- 1) At over 100 decibels, the noise level is dangerously high for humans, and animals. During flights, I cannot stay outdoors or risk damage to my hearing. Indoors, even headphones are ineffective. Non-domesticated animals must suffer terribly.
- 2) A growing number of public and private wells have been found contaminated with Perfluorooctanoic Acid ("PFOA"). PFOA is linked to cancers, birth defects, damage to the immune system, heart & thyroid disease, and complications during pregnancy. The Navy still uses firefighting foam containing PFOA, a likely human carcinogen.
- 3) The possibility of an aircraft engine failure is just a matter of time until an out-of-control aircraft crashes into our neighborhood, or nearby community. The potential for more accidents necessitating the use of the toxic firefighting foam containing PFOA must be analyzed within the Draft Environmental Impact Statement.
- 4) The economy of the entire area will be devastated as tourism inevitably declines. Property values have already been negatively affected, and will continue to fall.
- 5) During flights, it is impossible to conduct business in our Coupeville home-based office. I am sequestered in the basement of my home, virtually held captive.

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.n. Quality of Life
- 2.n. Alternatives Considered But Eliminated
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

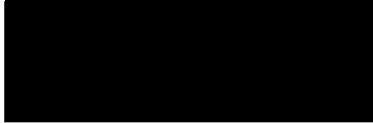
6) While driving in Oak Harbor, a truck displayed this sign:

“Idiot: Someone who buys a house in the flight path and then complains about the noise.” This controversy has created a hostile environment. It supports a growing belief that the US Navy cares little about citizens it purports to protect.

These factors create a considerable level of stress. Given that stress is a major cause of illness, I object to with **ongoing and future** EA-18 Ggrowler airfield operations at NAS Whidbey Island’s Ault Field & Outlying Landing Field (OLF). It is reasonable that U.S. Navy find a more appropriate location for an OLF, away from populated areas.

We need real alternatives to the options in the draft EIS. Please help us protect civilian safety, and well-being in Coupeville.

Sincerely,



Coupeville, WA 98239

It is very important to me that the Navy grant a 60 day comment period after the Final EIS is released to the public. The Final EIS must include complete and accurate APZs.

- 1.a. Thank You
- 2.e. Public Involvement Process
- 2.h. Next Steps
- 5.a. Accident Potential Zones

1.a. Thank You

Coupeville, WA 98239

I request that the Navy include a runway evaluation in the final EIS that shows whether or not the existing facilities at Coupeville OLF are in full compliance with recommendations for use with Growler aircraft. Thank you.

Port townsend, WA 98368

Dear Sir/Madam, I appreciate your extending the comment period to February 24, 2017. Since the Navy decided to hold all four of its public dog and pony shows (they are no longer technically 'public meetings') and produce the agency's DEIS during the holiday season, it made it difficult for the public to read, digest and assemble thoughtful comments related to the Navy's plans. The Navy's display of its version of a public process certainly does not instill confidence and trust. There are so many things wrong (and illegal) with the Navy's DEIS, it's hard to know where to begin. I am a historic preservation professional and am familiar with the Section 106 Process of the National Historic Preservation Act (NHPA) used to assess the effects of a project on historic, archaeological and cultural resources. The Navy has done little in this DEIS to comply with Section 106 review of its activities as the impacts to cultural and historic sites are not adequately considered. The Navy too narrowly defined the Area of Potential Effect (APE) for impact on cultural and historic resources. The State Historic Preservation Officer (SHPO) confirmed this in a January 9, 2017 letter to the Navy, as well as earlier communications. The SHPO commented that not only will cultural and historic properties within the limited, existing APE boundaries be adversely affected but additional portions of Whidbey Island, Camano Island, Port Townsend (containing both National Register Historic Districts and National Landmark Historic Districts) and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. I can personally attest to the noise and vibrations felt in Port Townsend when we now are subject to hours and hours of touch and go practice that supposedly only affects the area around the bases on Whidbey Island. This also includes the low-flying, often frightening "terrorizing" of Port Townsend's residents by the Navy's Growlers, particularly around periods of public comment. Part of the Section 106 process also includes consultation with the President's Advisory Council on Historic Preservation (ACHP) to consider effects and mitigation of those effects on the nation's historic/cultural resources. The Navy decided to abruptly cut off those consultations when the ACHP agreed with the SHPO and questioned the Navy's assessments. I am also concerned that actual "government to government" consultations were not adequately pursued with the numerous tribes whose cultural resources and traditions are directly affected by the jet invasion of western Washington State, particularly on the Olympic Peninsula. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the DEIS analyzes in its "study area" is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because all flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects. The US Department of Housing and Urban Development posted noise abatement

- 1.a. Thank You
- 1.c. Segmentation and Connected Actions
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 10.c. Wildlife Sensory Disturbance and Habituation
- 10.f. Endangered Species Impact Analysis Adequacy
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.k. Compensation to Citizens for Private Property
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 2.d. Program of Record for Buying Growler Aircraft
- 2.e. Public Involvement Process
- 2.h. Next Steps
- 2.i. Proposed Action
- 2.k. Range of Alternatives
- 2.m. Record of Decision/Preferred Alternative
- 2.n. Alternatives Considered But Eliminated
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 3.h. Runway Usage, Flight Tracks, and Altitudes
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.i. Other Noise Metrics Not Currently in Analysis
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 8.a. Cultural Resources Area of Potential Effect
- 8.b. Section 106 Process
- 8.c. Noise and Vibration Impacts to Cultural Resources
- 8.j. City of Port Townsend Cultural Resources

and control standards that classify the 65 dB levels being used by the Navy as “normally unacceptable” and above 75 as being “unacceptable.” Residents in these outlying areas, who live many miles from the Navy runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). The Navy has broken up this project into so many parts, changing from time to time the number of Growlers, flights, etc. and continues to say there is “no impact” on anything or anyone. It has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville alone went from 3,200 per year to a proposed 35,100 in 2017. That’s more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are “no significant impacts.” The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) “...does not allow an approach that would permit dividing a project into multiple ‘actions,’ each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.” Segmentation like this is illegal as it intentionally keeps the public confused and overwhelmed. The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomics, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability. The Navy states that it evaluated noise for the Olympic Peninsula in 2010 with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are “tiered” for this purpose, but they are not. Had the activities contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula. The Navy has not measured, modeled, nor considered direct, indirect or cumulative effects of jet noise in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the “Affected Noise Environment” around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy’s ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on

a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wild lands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense. Commercial airport noise standards should not apply to military jets because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public. The Navy's noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible.

(<https://www.serdestcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>) The Navy describes its activities using the term "event," but does not define it. Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or

structure.” If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled “Representative Sound Levels for Growler Aircraft in Level Flight,” on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets. The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, “. . .but may be developed and altered based on comments received.” Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be “. . .identified in the Final EIS or Record of Decision.” Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy’s proposal to not allow a comment period on the Final EIS would be unlawful. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period. There are no alternatives proposed in this DEIS that would reduce noise. This violates NEPA §1506.1, which states, “. . .no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives.” According to a memo from the President’s Council on Environmental Quality (CEQ) to all federal agencies, “Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.” (<https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the “loser” among these communities. The Navy has exacerbated the problem by not identifying a preferred alternative in the DEIS. According to the CEQ memo, “[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to “identify the agency’s preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . .” Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative. Impacts to wildlife have been piecemealed: It does not make sense to separate impacts from just one portion of

an aircraft's flight operations and say that's all you're looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy's study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual "events," which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process. Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted. Pages of boilerplate language do not constitute analysis of impacts to wildlife. Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is "greatest during flight operations." However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is "highly unlikely," largely because "no suitable habitat is present." This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly likely that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area. In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB. (<http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract>) The DEIS also failed to consider an important 2014 study called "Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds," (<http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html>) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the best available science. This DEIS fails that test. Contamination of drinking water in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant. The Navy knew about contamination in advance and avoided the subject in its DEIS. It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls "historic" use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of "identifying for removal and destruction all legacy perfluorooctane

sulfonate (and PFOA) containing AFFF [aqueous film forming foam].” Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: “Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e).” The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word “perfluoroalkyl” or “PFAS” is not mentioned once in the entire 1400-page DEIS, nor is it mentioned in the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals.

(<https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf>) No mention of contaminated soil is found in the DEIS. It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water. With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable. New information that was not disclosed in previous Navy EISs includes flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service’s draft permit, viewable at: <https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with “...opening day and associated opening weekend of Washington State’s Big Game Hunting Season for use of rifle/guns.” While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control. The current comment period on a Draft EIS should not be the last chance the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The “30-day waiting period” proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife

that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts. Thank you. [REDACTED]

Nordland, WA 98358

1.a. Thank You
4.I. Points of Interest

Marrowstone Island was not included in the EIS, even though we, as residents, are negatively impacted by the noise.

Langley, WA 98260

- 1.a. Thank You
- 1.d. General Project Concerns
- 2.n. Alternatives Considered But Eliminated

The proposed increase to growler activity on Whidbey Island totally disregards all life and commerce on the island besides the Navy, and there's a lot of that! It's just inappropriate for so many reasons: our hearing and other health impacts, wildlife disruption, discouragement of tourism, decline in property values, limiting our use of our beautiful preserves and historical places, among many others. In addition, I believe we should be working towards more peaceful solutions to our international issues, and not developing more weaponry of any kind. We're already the most powerful nation on earth. If we had better "manners" across the world, I'm sure we'd reduce our risk of more warfare in the first place. Whidbey Island is not the place to develop or test these offensive and dangerous technologies. Deserts are more appropriate locations, if it HAS to happen somewhere. Thank you.

Langley, WA 98260

The DEIS is insufficient in so many ways. The growler flights have become such a menace. The EIS does not address crash potentialities. Actual noise level testing was not even done! This is a peaceful, rural area which will be VERY negatively affected by the noise level of these growlers. We have a beautiful historic preserve, schools and parks that we'll need to wear ear muffs to use without damage to our ears. We're losing property value and tourism incomes have already been affected. This is just an inappropriate location for growler training or flying. Period. The health effects of the noise, fuel dumping and effects on our aquifers must be seriously considered. The Navy has been a controversial neighbor with many economic disadvantages for our Island for a long time, but these growlers have pushed us over the edge.

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.c. Socioeconomic Impacts
- 12.h. Tourism
- 12.j. Property Values
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.c. Compliance with the National Environmental Policy Act
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 5.a. Accident Potential Zones
- 5.d. Environmental Health Risks and Safety Risks to Children
- 6.f. Fuel Dumping
- 7.c. Noise Disclosure

Langley, WA 98260

The DEIS obfuscates the effects of FCLP jet noise on classroom interruptions by averaging interruptions with periods when jets are not practicing. The average understates interruption events compared with event frequency during FCLP sessions, which are as frequent as an interruption every 1-2 minutes. Interruptions of such frequency complicate teaching and thwart student concentration and break the focus of teacher and student. In addition the EPA states "Noise can pose a serious threat to a child's physical and psychological health, including learning and behavior," but the DEIS has not recognized the contemporary research. These oversights and failings must be properly addressed and analyzed.

1.a. Thank You
4.o. Classroom Learning Interference
4.r. Nonauditory Health Effects



EA-18G EIS Project Manager
 Naval Facilities Engineering Command
 (NAVFAC) Atlantic - Attn: Code EV21/SS6506
 Hampton Blvd
 Norfolk, Va 23508

02/26

- | | |
|---|--|
| 1.a. Thank You | 2.n. Alternatives Considered But Eliminated |
| 1.b. Best Available Science and Data | 3.a. Aircraft Operations |
| 1.c. Segmentation and Connected Actions | 3.b. Flight Tracks and Federal Aviation Administration Regulations |
| 10.a. Biological Resources Study Area | 3.d. Arrivals and Departures |
| 10.b. Biological Resources Impacts | 4.a. General Noise Modeling |
| 10.f. Endangered Species Impact Analysis Adequacy | 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources |
| 11.a. Groundwater | 4.c. Advanced Acoustic Model |
| 11.d. Per- and Polyfluoroalkyl Substances | 4.d. Day-Night Average Sound Level Metric |
| 12.k. Compensation to Citizens for Private Property | 4.e. Day-Night Average Sound Level Contours and Noise |
| 19.a. Scope of Cumulative Analysis | 4.f. Noise Measurements/Modeling/On-Site Validation |
| 19.b. Revised Cumulative Impacts Analysis | 4.i. Other Noise Metrics Not Currently in Analysis |
| 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training | 4.l. Points of Interest |
| 19.d. Electronic Warfare | 4.m. Supplemental Metrics |
| 19.h. Cumulative Impacts on Biological Resources | 4.t. Noise Mitigation |
| 2.b. Scope of the Environmental Impact Statement and Analysis Conducted | 4.v. Impacts to Domestic Pets, Livestock, or Wildlife |
| 2.c. Compliance with the National Environmental Policy Act | 5.a. Accident Potential Zones |
| 2.d. Program of Record for Buying Growler Aircraft | 8.a. Cultural Resources Area of Potential Effect |
| 2.e. Public Involvement Process | 8.c. Noise and Vibration Impacts to Cultural Resources |
| 2.h. Next Steps | 8.j. City of Port Townsend Cultural Resources |
| 2.i. Proposed Action | |
| 2.k. Range of Alternatives | |
| 2.m. Record of Decision/Preferred Alternative | |

NAVY GROWLER DRAFT EIS
NOTES FOR COMMENTS

Prepared for the public by the West Coast Action Alliance
(<http://westcoastactionalliance.org>)

Navy Growler EIS online comments at: <http://www.whidbeyeis.com/Default.aspx>

Dear Reader,

The deadline for comments has been extended to February 24, 2017. For more information, go to: <http://westcoastactionalliance.org> Please use these notes as you see fit, to help inform your comments, which may be filed in two ways:

1. Mail your comments to:

EA-18G EIS Project Manager
Naval Facilities Engineering Command (NAVFAC) Atlantic – Attn: Code EV21/SS 6506
Hampton Blvd.
Norfolk, VA 23508

2. Go online to cut and paste them into the Navy's comment box, at:
<http://www.whidbeyeis.com/Comment.aspx>

These comments are detailed, but detail is what's needed to qualify as “substantive” and thus grant the person who comments “standing,” which means the legal status to continue to participate in the process, either via comments at the next phase of the process, or possibly in litigation at the end, should one choose to be part of a larger group that files suit.

It's better to go long than short, because unless you cover multiple topics in comments at this stage, you may not be allowed to bring up information you left out if there is a future opportunity to comment—unless it's verifiably “new” information. Do your own research to augment these - go to the site, download the documents, read and do keyword searches:

(<http://nwtteis.com/DocumentsandReferences/NWTTDocuments/FinalEISOEIS.aspx>)

Make these sample comments your own! There are other concerns that have not been discussed in these sample comments. You may notice that we have not editorialized about like how we feel about all this; that is up to you, but remember; feelings alone may not comprise comments that the Navy will view as substantive.

According to Navy Public Affairs Officer Mike Welding there is no character limit, and lengthy comments like these can be copied, pasted and sent in one go via the comments box.

Thanks for caring enough to read this detailed information and to participate in the process.

Sincerely,
The West Coast Action Alliance

To: EA-18G EIS Project Manager
Naval Facilities Engineering Command (NAVFAC) Atlantic – Attn: Code EV21/SS 6506
Hampton Blvd.
Norfolk, VA 23508

Dear Sir/Madam,

Thank you for extending the comment period to February 24, 2017, in order to accommodate the fact that having four major public processes open over the holidays, all concerning Navy activities or the biological resources that may be affected by them, made it difficult to read, comprehend and prepare comments in a timely way.

1. Jet noise outside the immediate environs of the runways on Whidbey Island is not being evaluated, yet impacts are significant. Noise from EA-18G Growlers is affecting communities far outside the vicinity of Naval Air Station Whidbey Island, yet the only area the Draft Environmental Impact Statement (DEIS) analyzes in its “study area” is what falls within 6 to 10 miles of the corners of runways. Growler aircraft, which are capable of 150 decibels (dB), use these runways to get airborne and to land; therefore, what happens outside the study area cannot be ignored as if it does not exist, because *all* flight operations are functionally connected to takeoffs and landings. By considering only takeoff and landing noise and exhaust emissions at Ault Field and Outlying Field (OLF) Coupeville, the DEIS fails to consider the wider area of functionally connected impacts caused by naval flight operations. By failing to consider the interdependent parts of a larger action that cannot proceed without takeoffs and landings, as well as their impacts, the DEIS fails to evaluate cumulative effects.

2. Impacts to cultural and historic sites are not adequately considered. The Navy so narrowly defined the Area of Potential Effect (APE) for cultural and historic resources that it also fails to consider significant nearby impacts. The State Historic Preservation Officer confirmed this in a January 9, 2017 letter to the Navy. (http://westcoastactionalliance.org/wp-content/uploads/2017/01/SHPO-Letter-102214-23-USN_122916-2.docx) She said that not only will cultural and historic properties within existing APE boundaries be adversely affected, but additional portions of Whidbey Island, Camano Island, Port Townsend vicinity and the San Juan Islands are also within noise areas that will receive harmful levels of sound and vibration from Growler activity. The US Department of Housing and Urban Development posted noise abatement and control standards that classify the 65 dB levels being used by the Navy as “normally unacceptable” and above 75 as being “unacceptable.” (<https://www.hudexchange.info/programs/environmental-review/noise-abatement-and-control/>) Residents in these outlying areas, who live many miles from these runways, have recorded noise at least twice that loud. Therefore, by failing to include these areas, this DEIS violates both the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA).

3. Piecemealing projects to avoid analyzing cumulative effects is illegal. The Navy has, to date, piecemealed its aircraft training and testing activities affecting Whidbey Island, the San Juans, and the Olympic Peninsula into at least six separate actions:

1. 4 squadrons of P-8A Poseidon Multi-Mission Aircraft;
2. A 2005 EA (57 Growler jets); 2010 EIS (reaffirming the 57 Growlers that replaced Prowlers);
3. 2012 EA (26 Growlers including 5 from a reserve unit);
4. 2014 EA (Growler electronic warfare activity);
5. 2015 EIS discussing electronic warfare training and testing activity;
6. The current 2016-2017 DEIS (36 Growlers);
7. And, likely, a seventh process, as confirmed by news reports and a Navy official at a recent open house, for 42 more jets to bring the Growler fleet total to 160.

Therefore, it has been impossible for the public to know just how many Growlers there would be, or what their impacts would be, or what limits, if any, the Navy intends to establish. In just four documents—the 2014 EA, Forest Service permit Draft Decision, and the 2010 and 2015 EISs, there are more than 6,000 pages of complex technical material. The number of Growler flights at Outlying Field (OLF) Coupeville *alone* went from 3,200 per year to a proposed 35,100 in 2017. That’s more than a 1,000 percent increase at this runway alone, yet according to the Navy, there are “no significant impacts.” The National Environmental Policy Act (NEPA 40 C.F.R. §1502.4) “...does not allow an approach that would permit dividing a project into multiple ‘actions,’ each of which individually has an insignificant environmental impact, but which collectively have a substantial impact.”

The DEIS evaluates not the totality of impacts from the current fleet of 118 Growlers, nor the projected total of 160 of these aircraft, but slices out 36 of them for an incremental, piecemealed look, and concludes from both the construction activities and the addition of just these 36 new Growlers to the fleet, that no significant impacts will occur in the following categories: public health, bird-animal strike hazards to aircraft, accident potential zones, emissions of all types, archaeological resources, American Indian traditional resources, biological resources, marine species, groundwater, surface water, potable water, socioeconomic, housing, environmental justice, and hazardous waste. To state the obvious, impacts from this many Growlers, when taken together, are likely to be significant. Segmenting their impacts has allowed the Navy to avoid accountability.

4. The DEIS does not analyze impacts to groundwater or soil from use of firefighting foam on its runways during Growler operations, despite the fact that before this DEIS was published, the Navy began notifying 2,000 people on Whidbey Island that highly toxic carcinogenic chemicals had migrated from Navy property into their drinking water wells, contaminating them and rendering these people dependent on bottled water.

5. The DEIS fails to discuss, describe or even mention any potential impacts associated with electromagnetic radiation in devices employed by the Growlers in locating and interacting with the ground transmitters. It fails to mention any potential

impacts associated with aircrew practicing using electromagnetic weaponry, that will allow the Navy to make good on its 2014 statement that this training and testing is "turning out fully trained, combat-ready Electronic Attack crews."

6. The current comment period on a Draft EIS should not be the last chance the public will have for input. However, Navy announced on its web site that it does not intend to allow a public comment period on the Final EIS. The "30-day waiting period" proposed for the Final EIS is not a public comment period, and thus would be unresponsive to serious and longstanding public concerns on matters that will affect our lives as well as the lives of people doing business throughout the region, plus the visitors who are the tourism lifeblood of our economy, and the wildlife that inhabits the region. The Navy must allow the public to participate throughout the process, in order to be able to be able to assess the full scope of direct, indirect and cumulative impacts. This is doubly important because so many impacts have been excluded from analysis. A federal agency is required to prepare a supplement to either a draft or final EIS, and allow the public to comment, if there are significant new circumstances or information relevant to environmental concerns, that bear on the proposed action or its impacts.

7. There are no alternatives proposed in this DEIS that would reduce noise. This violates NEPA §1506.1, which states, "...no action concerning the proposal shall be taken which would have an adverse environmental impact or limit the choice of reasonable alternatives." According to a memo from the President's Council on Environmental Quality (CEQ) to all federal agencies, "Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (<https://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf>) The three alternatives presented by the Navy are merely a shell game of choices among the same number of flights, but for different percentages of activity at runways. This pits communities against each other, as the runway that receives more flights will determine the "loser" among these communities.

8. The Navy has exacerbated the problem stated in #8 by not identifying a preferred alternative in the DEIS. According to the CEQ memo, "[NEPA] Section 1502.14(e) requires the section of the EIS on alternatives to "identify the agency's preferred alternative if one or more exists, in the draft statement, and identify such alternative in the final statement . . ." Since the Navy has not done this, communities cannot evaluate potential noise levels. Since the Navy has also announced that it will not provide a public comment period for the Final EIS, communities will have no chance to evaluate the consequences or even comment on the preferred alternative.

9. The Navy states that it evaluated noise for the Olympic Peninsula in 2010 with the Northwest Training Range Complex EIS, but that document did not do so. The Navy claims its documents are "tiered" for this purpose, but they are not. Had the activities contemplated by the proposed Electronic Warfare Range been evaluated by that EIS, the ground-based mobile emitters should have been listed as an emission source. They were not. For Electronic Combat and Electronic Attack, the only areas listed by activity and

training area, warfare type, and Range and Training Site were the Darrington Area and W-237. Neither is on the Olympic Peninsula. Had noise been properly evaluated, the Olympic MOAs should have been listed. They were not. Therefore, noise from Growler activities has not been evaluated in this or any previous for the Olympic Peninsula.

10. The Navy has neither measured, modeled, nor considered direct, indirect or cumulative effects of jet noise in any areas outside the immediate environs of NASWI runways. Actual noise measurements have not been made anywhere. However, computer modeling for the 10-mile radius of the "Affected Noise Environment" around Naval Air Station Whidbey Island (NASWI) extends to the year 2021 and clearly demonstrates the Navy's ability to model noise. Therefore it makes no sense to fail to measure or model highly impacted areas such as the West End of the Olympic Peninsula, with its very different terrain and weather conditions, as demonstrated by separate NOAA weather forecasts for each region. For example, the Hoh River is surrounded by steep-sloped mountains that amplify and echo noise. Port Townsend is on a peninsula surrounded on three sides by water, which echoes sound. Port Angeles gets reflected sound from the Strait of Juan de Fuca to its north and from the Olympic Mountains to its south. Yet no noise modeling or measurements have been done for these areas.

11. The Navy's claim that areas outside the narrow boundaries of its study area do not exceed noise standards is suspect, first because the standards used by the Navy are unrealistic, second, because the Navy has never measured or modeled noise in these areas, and third, because the "library" of sounds that comprise the basis for the Navy's computer modeling is not available for public inspection. The Navy uses the less realistic Day-Night Average Sound Level (DNL) rather than the Effective Perceived Noise Level, as provided in Federal Aviation Regulation 36. DNL uses A-weighting for the decibel measurement, which means jet noise is averaged with quiet over the course of a year to come up with a 65 dB average. This means peak noise levels in these un-measured and un-modeled communities and wildlands may far exceed 65 dB as long as the constant average with quiet periods over a year stays below 65 dB. This is unrealistic, and claims by the DEIS that wildlife are "presumably habituated" to noise do not apply when that noise is sporadic and intense.

12. Commercial airport noise standards should not apply to military jets because commercial jets do not have afterburners, do not engage in aerial combat maneuvers, do not fly at low altitudes or practice landing on runways so short they can only be used for emergencies, do not possess the flight characteristics of Growlers, and do not have weaponry that is capable of making a parcel of forest hum with electromagnetic energy. FAA policy does not preclude use of the more accurate Effective Perceived Noise Level as the standard, nor are local jurisdictions prevented from setting a lower threshold of compatibility for new land-use developments. FAA policy allows for supplemental or alternative measurements. So, the continued use of DNL may be to the Navy's benefit, but does not benefit the public.

13. The Navy's noise analysis does not allow for peak noise experiences, nor does the DNL method they use take into account low-frequency noise, which is produced at tremendous levels by Growlers.

14. The NOISEMAP software used for computer modeling is severely outdated, and a report from a Department of Defense commission concluded that noise measurements using this software "...do not properly account for the complex operational and noise characteristics of the new aircraft." This report concluded that current computer models could be legally indefensible. (<https://www.serdp-estcp.org/Program-Areas/Weapons-Systems-and-Platforms/Noise-and-Emissions/Noise/WP-1304>)

15. The Navy describes its activities using the term "event," but does not define it. Therefore, the time, duration, and number of jets in a single "event" remain unknown, and real impacts from recent increases remain unevaluated. As a result of leaving out vast geographical areas where noise impacts will occur (and are occurring now), the DEIS eliminates far too many direct, indirect and cumulative effects to be considered a valid or complete analysis. Limiting the scope like this amounts to a segmentation of impacts that forecloses the public's ability to comment and gain legal standing. By law, the public has the right to address the full scope of impacts, not just a narrow sliver of them.

16. New information that was not disclosed in previous Navy EISs include flight operations on weekends (not mentioned in the current DEIS but specified on page 11 of the Forest Service's draft permit, viewable at: <https://www.fs.usda.gov/project/?project=42759>). It has long been understood that the Navy would cooperate with local governments, especially in communities that depend on tourism, by not conducting noise-producing operations on weekends. Further, the singling out of one user group for an exemption from noise is outrageous and unfair. According to the permit, weekend flying may be permitted so long as it does not interfere with "...opening day and associated opening weekend of Washington State's Big Game Hunting Season for use of rifle/guns." While such an exemption is under Forest Service and not Navy control, the Navy must realize that municipalities and local governments, along with economically viable and vulnerable tourism and recreation entities who are not being considered, have not been given the opportunity to comment. The impression is that our national forests are no longer under public control.

17. Low flights will make even more noise than before: While the Navy has repeatedly told the public over the past few years that Growlers will fly at a minimum of 6,000 feet above sea level, the DEIS quotes guidance from the Aircraft Environmental Support Office: "Aircraft are directed to avoid towns and populated areas by 1 nm (nautical mile) or overfly 1,000 feet AGL (above ground level) and to avoid airports by 3 nm or overfly 1,500 AGL." This guidance further states, "Over sparsely populated areas, aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure." If this official guidance directs Growlers to fly at such low altitudes, why did the Navy not disclose this in any previous NEPA documents? For an aircraft capable of 150 decibels at takeoff, this new information represents a significant new level of noise impacts that have been neither previously disclosed nor analyzed.

18. Sound levels for these low flights are not listed in the DEIS: Table 3.1-2, titled "Representative Sound Levels for Growler Aircraft in Level Flight," on page 3-6, does not show sound exposure levels for Growlers flying at either 1,000 feet or 1,500 feet AGL, as mentioned in the official guidance. Why has this important information been omitted? The public needs to know how much actual noise exposure there will be, along with the threats posed to public and environmental health. This, therefore, is significant new information about impacts that were not disclosed in the DEIS, and requires either that a Supplemental EIS be prepared, or that a public comment period of adequate length be provided on the Final EIS. For public health and safety reasons, the Navy must revise its guidance to significantly increase the distances that Growler jets are currently allowed to fly over towns, airports, individual people, vessels, vehicles, and structures. 500 to 1,000 feet is far too close, and 1,500 feet over an airport is far too dangerous a proximity to supersonic Growler jets.

19. No mitigation for schools: The DEIS states that in the case of local schools, no mitigation measures for any of the 3 proposed alternatives were identified, "...but may be developed and altered based on comments received." Some schools will be interrupted by jet noise hundreds of times per day. Yet the Navy suggests that future mitigation measures might be brought up by the public (and subsequently ignored) and thus will be "...identified in the Final EIS or Record of Decision." Such information would be new, could significantly alter the Proposed Actions, and would therefore require another public comment period, in which case the Navy's proposal to *not* allow a comment period on the Final EIS would be unlawful.

20. The current DNL noise modeling method and data in no way reflect exposure accuracy, given the new information about low flight levels from official guidance. Therefore, such analyses must be included in a Supplemental EIS or in the Final EIS, with a new public process of adequate length, including an official comment period.

21. Crash potential is higher: With no alternatives provided to the public that reduce noise, and with such permissive guidance that allows such low-altitude flight, the potential for Navy Growler student pilots to create tragic outcomes or cause extreme physical, physiological, economic and other harms to communities and wildlands, whether accidentally or on purpose, is unacceptable.

22. Contamination of drinking water in residential and commercial areas near the runways, due to use of hazardous chemicals, is completely ignored by the DEIS. It concludes, "No significant impacts related to hazardous waste and materials would occur due to construction activities or from the addition and operation of additional Growler aircraft." While these chemicals have never been analyzed, they have been used in conjunction with Growler training and other flight operations for years; therefore, hazardous materials analysis for these chemicals should not be excluded just because Growlers are not the only aircraft this foam has been used for. It is irresponsible for the DEIS to content that there are no significant impacts. As previously stated, with flights at OLF Coupeville alone increasing from 3,200 in 2010 to as many as 35,100, no one can

claim that a 1,000 percent flight increase in 7 years for which no groundwater or soil contaminant analyses have been done is not significant.

23. Navy knew about contamination in advance: It is clear that before the November 10 publication of this DEIS, the Navy was well aware of potential problems with contamination of residential drinking water due to what it calls “historic” use of fire suppressants for flight operations. In May 2016 the USEPA issued drinking water health advisories for two PFCs, and the Navy announced in June that it was in the process of “identifying and for removal and destruction all legacy perfluorooctane sulfonate (and PFOA) containing AFFF [aqueous film forming foam].” Yet the DEIS dismisses all concerns with an incredible statement about actions that took place nearly 20 years ago: “Remediation construction was completed in September 1997, human exposure and contaminated groundwater exposures are under control, and the OUs at Ault Field and the Seaplane Base are ready for anticipated use (USEPA, 2016e).” The statement is ludicrously outdated, and recent events refute it. Three days before the DEIS was published, on November 7, 2016, the Navy sent a letter to more than 100 private and public drinking water well owners expressing concern that perfluoroalkyl substances (PFAS) found beneath the OLF had spread beyond Navy property. Yet the word “perfluoroalkyl” or “PFAS” is not mentioned once in the entire 1400-page DEIS, nor is it mentioned the 2005 or 2012 EAs. A Department of Defense publication makes it clear that there is no current technology that can treat soil or groundwater that has been contaminated with these chemicals. (<https://dec.alaska.gov/spar/ppr/hazmat/Chemical-&-Material-Emerging-Risk-Alert-for-AFFF.pdf>)

24. No mention of contaminated soil is found in the DEIS: It confines its discussion to soil compression and compaction effects from new construction, and concludes there will be no impacts to groundwater. It is therefore puzzling to consider that while extensive evaluations for a variety of hazardous materials were included in the October 2015 Northwest Training and Testing Final EIS, why would the Navy omit such contaminants as the ones mentioned above, from the Growler DEIS? This is the equivalent of a doctor refusing to look at an EKG that clearly shows a heart attack, and diagnosing the patient with anxiety. The Navy needs to include this information in a public NEPA process as an impact of its flight activities. It needs to accept responsibility for this contamination, and pay the costs incurred by finding a permanent alternative source of water for affected residents, and by reimbursing these people for medical costs created by unwitting consumption of Navy-contaminated water.

25. Impacts to wildlife have been piecemealed: It does not make sense to separate impacts from just one portion of an aircraft’s flight operations and say that’s all you’re looking at. But because the scope of the DEIS is limited to areas adjacent to runways, analysis of impacts to wildlife from connected flight operations that occur outside these narrow confines are omitted. Threatened and endangered species, sensitive species and other wildlife and critical habitat areas are adversely impacted by noise from takeoffs, landings and other flight operations well beyond the Navy’s study area. For example, the increase in aerial combat maneuvers (dogfighting) from 160 to 550 annual “events,”

which by their erratic nature cannot safely occur near runways, is a 244 percent increase that has been neither examined nor analyzed in this or any previous NEPA process. Dogfighting requires frequent use of afterburners, which are far louder and use as much as ten times the amount of fuel as normal flight does. Impacts to wildlife and habitat were completely omitted.

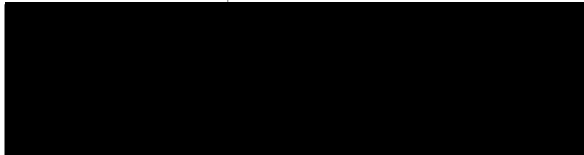
26. Pages of boilerplate language do not constitute analysis of impacts to wildlife:

Except for standardized language copied from wildlife agencies about species life histories, along with lists of various county critical areas ordinances and state wildlife regulations, the DEIS fails to evaluate direct, indirect or cumulative impacts to wildlife. Instead, it offers the excruciating conclusion that the potential for noise impacts and collisions with birds is “greatest during flight operations.” However, continues the DEIS, except for the marbled murrelet, the occurrence of these sensitive species in the study area is “highly unlikely,” largely because “no suitable habitat is present.” This begs the question: if the scope of this DEIS measured the true impacts of jet noise, it is highly *likely* that suitable habitat for many of these species would be found. And if impacts had not been segmented for decades, there might be suitable habitat remaining in the study area.

27. Old research cited but new research not: In citing published scientific research, the Navy included a 1988 synthesis of published literature on domestic animals and wildlife, but failed to consider the latest peer-reviewed research summarized in 2015, which lists multiple consequences of noise greater than 65 dB.

(<http://onlinelibrary.wiley.com/doi/10.1111/brv.12207/abstract>) The DEIS also failed to consider an important 2014 study called “Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds,” (<http://www.nature.com/nature/journal/v509/n7500/full/nature13290.html>) A federal agency cannot cherry-pick scientific research for its own convenience; it must consider the *best available science*. This DEIS fails that test.

Thank you for considering these comments.
Sincerely,



February 21, 2017

EA-18G Growler EIS Project Manager
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard
 Norfolk, VA 23508
 Attn: Code EV21/SS

Subject: EIS for EA-18G "Growler" Airfield Operations at NAS Whidbey Island Complex

Dear Sir/Madam:

As a resident of Marrowstone Island in Jefferson County, I was alarmed to learn that Marrowstone Island was not included in the Navy's Draft Environmental Impact Statement (DEIS) for increased Growler operations on neighboring Whidbey Island. I frequently see and hear the Growlers, (from inside my home, with windows closed), and experience the associated disruption of daily activities and loss of sleep. Since one of the "alternatives" in the DEIS proposes to increase Growler practice landings at Coupeville from 6,100 to 35,100 -- **nearly a six-fold increase!** -- the failure of the DEIS to address the impacts on Marrowstone Island is a troubling omission. The fact that the Navy's noise model shows Marrowstone Island to be outside the area impacted by Growler-generated noise clearly shows that the model is flawed.

On a regional level, tourism will likely suffer as visitors currently drawn to the area's quiet, scenic beauty and outdoor recreational activities will choose to go elsewhere. Currently, the campgrounds and rental cabins at Fort Flagler State Park, (located on the northern end of Marrowstone Island), are generally booked solid throughout the summer. That is likely to change with increased hours of Growler operations making camping and hiking on Marrowstone an unpleasant experience.

Finally, I am concerned about the impacts of the low frequency noise on local wildlife and marine mammal populations. Low frequency noise has been proven to be particularly disruptive to wildlife, and yet the DEIS does not address this.

Perhaps the most glaring omission of the DEIS is that it **does not include a single alternative for relocating Growler operations**. While a more sparsely populated and less environmentally sensitive area would seem to make sense, expanding the Growler operations on Whidbey Island is instead treated as a foregone conclusion, and relocation given a cursory dismissal at the beginning of the document. This undermines the credibility of the entire DEIS.

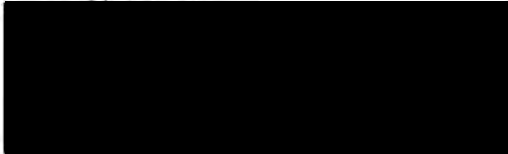
I respectfully request that the Navy conduct a more thorough and comprehensive analysis that addresses the following DEIS deficiencies:

- (1) Inaccurate definition of the geographic area of impact for Growler operations on Whidbey Island;
- (2) Failure to address the impact of the Growler's low frequency noise emissions on wildlife and marine mammals; and
- (3) Failure to include a rigorous evaluation of alternative locations.

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.c. Wildlife Sensory Disturbance and Habituation
- 1.m. Impacts to Marine Species and Habitat
- 12.h. Tourism
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.e. Day-Night Average Sound Level Contours and Noise
- 4.l. Points of Interest
- 4.m. Supplemental Metrics
- 7.d. Recreation and Wilderness Analysis and Study Area
- 7.e. Impacts to Recreation from Noise/Operations
- 7.i. Deception Pass State Park and Other State Parks

Many of us have chosen to live in northwest Washington precisely because we value its natural beauty, the diversity of wildlife, and the peace and quiet. Our health and well being, along with that of our natural environment, is as critical as our military's operational readiness. Maintaining the security of our country should not come at the expense of our quality of life and the health of our environment.

Sincerely yours,



Nordland, WA 98358

Nordland, WA 98358

As a patriotic Navy Veteran who suffered hearing loss on diesel submarines, I can attest to the health effects described by Washington State Dept. of Health. Here is a summary. Please take it seriously. Findings considered in this review are summarized below. •

- **Noise-Induced Hearing Loss and Tinnitus:** There is a risk of hearing impairment from long-term exposure to steady state noise levels greater than 85 dBA for an 8-hour period, and greater than 70 dBA LAeq for a 24-hour period at frequencies ranging from 3,000 Hz to 6,000 Hz. This type of noise exposure is generally not associated with aircraft noise.
- **Annoyance:** The scientific literature provides evidence that noise exposure leads to annoyance, which causes a decrease in quality of life. While definitively quantifying annoyance and its effect on the population is challenging, there is strong evidence that feeling annoyed has negative impacts on mental health and cardiovascular endpoints.
- **Sleep Disturbance:** A variety of measurement techniques have been used to study sleep disturbance. There is general agreement that noise is associated with sleep disturbance and if the disturbance is severe and frequent, it can lead to negative health consequences.
- **Cognitive Impairment:** Studies of noise effects on children's cognition reveal an increasing trend that noise exposure results in impaired reading skills. One of the largest studies to-date found that reading comprehension falls below average when children are exposed to aircraft noise that is above 55 dB LAeq16 at school.
- **Cardiovascular Disease:** The extent and underlying mechanisms for the relationship between noise exposure and cardiovascular health are still poorly understood. However, the scientific literature has provided increasing evidence of a positive association.
- **Susceptible Populations:** Groups that have been described as particularly susceptible to the effects of noise include smokers, children, the elderly, shift-workers, and individuals with sleep disorders, mental disorders, and physical illnesses. However, more research is needed to understand differences in risk in these groups compared to the general population. The relationship between noise exposure and health has been studied extensively, and the body of knowledge on this topic is rapidly increasing. However, there are gaps of knowledge to consider. For instance, additional research is needed to thoroughly understand the specific exposure-response relationship and underlying pathways for some health endpoints. There are also complexities related to selecting the most appropriate noise measurement for assessing health outcomes. For example, the Ldn metric is commonly used to quantify aircraft noise exposure levels, yet this metric does not account for infrequent loud events, which could have impacts on health effects such as sleep disturbance 23. Different measurements might be more appropriate for specific noise sources or health outcomes, and future work parsing out these relationships will greatly enhance our understanding of the association between specific noise characteristics and health. In general, there is increasing evidence that noise exposure, as defined from multiple sources including commercial aircraft, is associated with numerous adverse health effects. There are likely nuances associated with noise exposures specific to military aircraft that are not thoroughly understood. However, noise levels similar to those reported from NAS Whidbey Island Complex described in all recent reports 25,26,28 pose a threat to public health.

- 1.a. Thank You
- 12.n. Quality of Life
- 4.d. Day-Night Average Sound Level Metric
- 4.m. Supplemental Metrics
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests

Nordland, WA 98358

As a resident of Marrowstone Island in Jefferson County, I was alarmed to learn that Marrowstone Island was not included in the Navy's Draft Environmental Impact Statement (DEIS) for increased Growler operations on neighboring Whidbey Island. I frequently see and hear the Growlers, (from inside my home, with windows closed), and experience the associated disruption of daily activities and loss of sleep. Since one of the "alternatives" in the DEIS proposes to increase Growler practice landings at Coupeville from 6,100 to 35,100 -- nearly a six-fold increase! -- the failure of the DEIS to address the impacts on Marrowstone Island is a troubling omission. The fact that the Navy's noise model shows Marrowstone Island to be outside the area impacted by Growler-generated noise clearly shows that the model is flawed. On a regional level, tourism will likely suffer as visitors currently drawn to the area's quiet, scenic beauty and outdoor recreational activities will choose to go elsewhere. Currently, the campgrounds and rental cabins at Fort Flagler State Park, (located on the northern end of Marrowstone Island), are generally booked solid throughout the summer. That is likely to change with increased hours of Growler operations making camping and hiking on Marrowstone an unpleasant experience. Finally, I am concerned about the impacts of the low frequency noise on local wildlife and marine mammal populations. Low frequency noise has been proven to be particularly disruptive to wildlife, and yet the DEIS does not address this. Perhaps the most glaring omission of the DEIS is that it does not include a single alternative for relocating Growler operations. While a more sparsely populated and less environmentally sensitive area would seem to make sense, expanding the Growler operations on Whidbey Island is instead treated as a foregone conclusion, and relocation given a cursory dismissal at the beginning of the document. This undermines the credibility of the entire DEIS. I respectfully request that the Navy conduct a more thorough and comprehensive analysis that addresses the following DEIS deficiencies: 1) Inaccurate definition of the geographic area of impact for Growler operations on Whidbey Island; 2) Failure to address the impact of the Growler's low frequency noise emissions on wildlife and marine mammals; and 3) Failure to include a rigorous evaluation of alternative locations. Many of us have chosen to live in northwest Washington precisely because we value its natural beauty, the diversity of wildlife, and the peace and quiet. Our health and well being, along with that of our natural environment, is as critical as our military's operational readiness. Maintaining the security of our country should not come at the expense of our quality of life and the health of our environment.

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 10.c. Wildlife Sensory Disturbance and Habituation
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- 12.h. Tourism
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
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- 4.m. Supplemental Metrics
- 7.d. Recreation and Wilderness Analysis and Study Area
- 7.e. Impacts to Recreation from Noise/Operations
- 7.i. Deception Pass State Park and Other State Parks

nordland, WA 98358

I am a U.S. Navy Veteran who worked for the VA Medical Center for 15 years prior to retiring to Marrowstone Island. As a veteran being compensated for hearing loss while in military service, I know first-hand the scope and impact of high-intensity, low frequency noise. VA compensation for hearing loss is the biggest single cost to compensate our veterans. For the past several years, I have had my sleep disturbed by pairs or sometimes three EA 18 Growlers practicing their touch and go landings on the Outlying Field at Coupeville. These flights have a pattern that circles over Marrowstone Island usually from mid-afternoon until about 11pm. Occasionally they buzz Indian Island at less than 250 feet. Sleep is often impossible, despite wearing earplugs, or with a pillow over my head indoors with the windows closed. Review of the draft Environmental Impact Statement for increased Growler flights reveals that Marrowstone and other areas were not considered nor measured for actual ground noise. Navy planners have expressed surprise that we even hear the jet noise. Choosing to continue, or expand these training flights in our area is an intrusion that corrodes my normal patriotism and support for our military. One would not site a bombing range near a town. The "sound of freedom" as some call it, should be relocated to somewhere that it will not cause suffering to the citizens it is training to protect. Alternatives such as moving training to Mountain Home ID, or China Lake should be pursued to restore civility and quiet to our residents. The use of drones for electronic warfare should be on a fast track. Sincerely, [REDACTED]

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.i. Points of Interest
- 4.m. Supplemental Metrics
- 4.q. Potential Hearing Loss

Nordland, WA 98358

Noise model used by Navy and shown in public meetings is a gross misrepresentation of the actual impact on residents under growler training flight path. The past two years, i have had sleep disturbed by growler flights over OLF that have part of the circuit over Marrowstone Island. I once saw two jets buzzing Indian Island at only 250 feet!. Called FAA who assured me this was not approved. The thundering noise vibrated my house and body. As a patriotic US Navy Veteran, this goes beyond my ability to "suck it up" in the name of military readiness. We should train with these loud jets in the desert of China Lake or someplace less populated. It does no good to preserve our freedom, if we lose the quality of life we are sworn to protect.

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 3.a. Aircraft Operations
- 3.c. Military Training Routes
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.l. Points of Interest
- 4.p. Sleep Disturbance

Nordland, WA 98358

Noise impact of growler training is over the top near Whidby island. I chose to live on Marrowstone Island, thinking I would not be adversely affected. Last two summers, I was pained to hear the growlers flying circuits around Marrowstone island, keeping me awake til nearly midnight. Very loud noise, with the windows shut. Upon investigation, I learned that the pilots were training touch and goes on OLF, so their path goes around our island. Reading the DEIS reveals under stated noise impact--a flawed element of the DEIS. A second flaw is the argument that the Whidby site is essential for simulating carrier landings due to altitude. These conditions could be done at China Lake, Mountain Home ID, or on a carrier 100mi offshore. A better overall alternative is to use the Grumman drones with EW jamming chaff that is less risky for our pilots, and likely more effective.

1.a. Thank You

2.n. Alternatives Considered But Eliminated

4.l. Points of Interest

Environmental Impact Statement Comment Form
EA-18G Growler Airfield Operations at NAS Whidbey Island Complex

Comments must be postmarked or submitted online by February 24, 2017
SEND COPIES OF YOUR COMMENTS TO OUR ELECTED OFFICIALS

Online at: <http://www.whidbeyeis.com/Comment.aspx>
 By mail at *Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS*

1. Name [REDACTED]
2. Organization/Affiliation (resident, citizen, business, nonprofit, veteran, retired military)
Resident - Business owner (farmer)
3. Address [REDACTED]
4. Email [REDACTED]

Increases in Outlying Field (OLF) operations will significantly harm our property values, health, schools and quality of life as well as severely impact our primary industries, tourism and agriculture. This is a burden greater than the Coupeville/Central Whidbey community can bear.

Comments

Please check all that concern you and add additional comments on the back.

The environmental impacts of the following issues due to increased flight operations at the OLF are not adequately addressed in the draft Environmental Impact Statement (EIS):

- Health effects from noise and low-frequency sound.
- Businesses, schools, hospital, and County and Town public government operations in the Coupeville area.
- A decrease in tourism including in the town of Coupeville, hiking and birding at Ebey's Landing National Historical Reserve, the Casey Conference Center, Fort Casey State Park, The Pacific Rim Institute.
- A decrease in private property values due to noise.

(over)

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.e. Agriculture Analysis
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 12.j. Property Values
- 12.l. Community Service Impacts
- 12.m. Education Impacts
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.l. Points of Interest
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 5.c. Condition of Outlying Landing Field Coupeville
- 5.d. Environmental Health Risks and Safety Risks to Children
- 5.e. Lack of First Responders at Outlying Landing Field Coupeville
- 7.g. Ebey's Landing National Historical Reserve
- 7.j. Impacts on Outdoor Sports

- Outdoor recreation limits, as well as children's and family's health, at Rhododendron Park ball fields.
- Noise impacts on commercial properties including agriculture.
- Aquafer and well contamination.

Additional Concerns:

- The addition of large, new, and undefined Accident Potential Zones (APZs) surrounding OLF will restrict property rights and significantly decrease property values.
- The Navy did not adequately look at siting new Growler aircraft elsewhere despite this being one of the top issues from the community during the Navy's prior scoping forums.
- The impact on marine and terrestrial wildlife.
- The major security risk for Whidbey Island by siting all Growlers here.
- Mishaps and crash risks due to problems such as their onboard oxygen system.

Please include any additional comments and concerns here:

- I am concerned that Coupeville Middle School + Coupeville High School have been omitted from the DEIS. The final EIS absolutely needs to address the potential impact on these schools.
- I am concerned that Coupeville-area farms will be negatively impacted by the PFOAs + that crops may not be safe to consume.
- I am concerned about the noise impacts on people in and around the flight paths and the accidental protection zones.
- I am concerned that property values will plummet as a result of noise and contamination of water caused by PFOAs.

All comments will become a part of the public record and will be addressed in the final EIS. Personally identifiable information of individuals will be kept confidential and not released, unless otherwise specifically indicated by the commenter or as required by law. City, state and five-digit zip code of individuals who provide comments may be released.

For more information, see, Coupeville Community Allies, www.facebook.com/whidbeyeis

Coupeville Community Allies is a group of community members committed to sharing accurate information to all Coupeville and Whidbey Island residents regarding the Growler DEIS. We encourage everyone to get involved in the discussion of our future and to submit comments and concerns.

Victoria, British Columbia V8P 3K6

There seem to be an ever increasing problem with the "rumbles" coming up from Puget Sound to Victoria. I have sometimes wondered if we would notice the first signs of an earthquake or just assume it was the "rumbles" as usual until it was too late. It is stressful for animals and our dog is showing more and more nervous behaviour. I was encouraged to read that you want to be good neighbours and I sincerely hope you will be able to reduce the noise problem.

1.a. Thank You

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Victoria, British Columbia V8P 3K6

There seem to be an ever increasing problem with the "rumbles" coming up from Puget Sound to Victoria. I have sometimes wondered if we would notice the first signs of an earthquake or just assume it was the "rumbles" as usual until it was too late. It is stressful for animals and our dog is showing more and more nervous behaviour. I was encouraged to read that you want to be good neighbours and I sincerely hope you will be able to reduce the noise problem.

1.a. Thank You

4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations

4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Olga, WA 98279

The noise level has once more grown, and as an Environmentalist have sacrificed scarce financial and time resources in protecting our land and sea creatures. Your EIS leaves way too much gaping holes, threatening whales' and peoples' lives! PLEASE - do it right!

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 10.m. Impacts to Marine Species and Habitat
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:
EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name _____

2. Last Name _____

3. Organization/Affiliation _____

4. City, State, ZIP _____ *Lopez Island, WA 98261*

5. E-mail _____

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

- 1.a. Thank You
- 12.a. Socioeconomic Study Area
- 12.h. Tourism
- 2.c. Compliance with the National Environmental Policy Act
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
- 4.c. Advanced Acoustic Model
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.g. Average Annual Day/Average Busy Day Noise Levels
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects
- 7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

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EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name _____

2. Last Name _____

3. Organization/Affiliation _____

4. City, State, ZIP Lopez Island, WA, 98261

5. E-mail _____

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- 12. Add your own comments here:

1.a. Thank You

Oak Harbor, WA 98277

The Navy presence here on Whidbey Island is a critical part of our economy and an excellent site for preparing our pilots who help sustain our national defense. I lived in the flight path of SeaTac airport for over 12 years. I have lived on Whidbey Island for almost 30 years. The constant noise of the commercial flights passing over our house (located 20 miles south of the airport I might add) every 5 minutes compared to the Growlers, or any other planes, during the past 30 years, is like comparing the noise of Niagra Falls to the noise of the waves at West Beach or Windjammer Park. The impact is minimal and we need a final ruling in favor of NAS Whidbey; and we need to welcome the EA-18G Growler Squadrons to our island.

1.a. Thank You

Victoria, British Columbia V8S 2N3

There is no environmental impact when our Boys are called on to protect us, our families, and our Country. We all should remember this...

1.a. Thank You

2.m. Record of Decision/Preferred Alternative

OLFville, WA 98111

Hey listen I'm not giving you my real name but just picked up on the Facebook this awesomeness: [REDACTED] I cannot lighten my mind: just finished reading 320 pages of section 4 of the U S Navy's draft Environmental Impact Statement and there is NO GLIMMER of hope. They are intent on destroying Central Whidbey. No one, no home, no animal, no business, no tourist will escape a significant negative impact. I feel utterly hopeless." ARE YOU KIDDING ME?!? TOUCHDOWN NAVY, WE GOT COER CRYING! MY GROWLER ANGEL AND FUTURE GIRLFRIEND HAD TO BOUNCE AT EL CENTRO THANKSGIVING WEEK TO APPEASE COER. I CAN'T WAIT FOR YOU TO ENACT SCENARIO A AND JUST BRING HOME THE GLORY! WE HAVE A CHANCE! LET'S COME OUT OF THE PILE WITH SCENARIO A AND GET OLF ROCKING FOR EVERY SQUADRON!



Public Meeting Comment Form

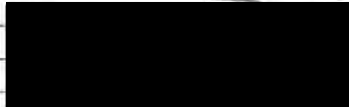
Thank you for attending the public meeting on the *Draft Environmental Impact Statement (EIS) for EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island Complex.*

To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: (1) **Provide written comments at today's public meeting;** (2) **Speak with the stenographer, who will record your comments;** (3) **Submit your comments on the project website at www.whidbeyeis.com;** or (4) **Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

All comments submitted on the Draft EIS by January 25, 2017, will become part of the public record and will be addressed in the Final EIS. The names, street addresses, email addresses and screen names, telephone numbers, and other personally identifiable information of individuals who provide comments will be kept confidential and will not be released, unless otherwise specifically indicated by the commenter or as required by law. The city, state, and five-digit zip code of individuals who provide comments may be released.

- 1. Name [REDACTED]
- 2. Organization/Affiliation None Jefferson County ^{lifetime} resident
- 3. Address [REDACTED] Port Townsend, WA 98368
- 4. E-mail [REDACTED]
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

I am opposed to the increase in growlers on the olympic peninsula, especially over olympic national park.
I'm concerned about the electromagnetic radiation to humans & animals. I'm also disturbed by the noise level impact on humans & animals. Please do not use our olympic peninsula for war games!
I am a nurse at our local hospital ^{and mother} and the wellbeing of our environment + community is my main concern. Thank you for your consideration



Please print - Additional room is provided on back
 Please drop this form into one of the comment boxes here at the public meeting or mail to:
 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 7.d. Recreation and Wilderness Analysis and Study Area



Public Meeting Comment Form

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- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 7.d. Recreation and Wilderness Analysis and Study Area

1. Name

[Redacted]

2. Organization/Affiliation

- Citizen

3. Address

[Redacted]

Port Townsend, WA 98368

4. E-mail

[Redacted]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

as a resident of Port Townsend, WA I'm very opposed to increasing the use of the latest model of Growlers over and on the Olympic Peninsula (especially Olympic Nat. Park) a protected area. I'm concerned about the negative impacts of electromagnetic radiation, high decibel levels & pollution on humans, animals and our environment. Please take these impacts seriously. Thank you.

[Redacted]

Please print • Additional room is provided on back

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Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

1.a. Thank You

Port Orchard , WA 98367

Training is of the utmost importance in all endeavors of aviation. This is a Military that has been situated at the current location for 75 years. I have spent time on Whidbey Island and the San Juans and have always enjoyed seeing aircraft operating from Whidbey NAS. The training is critical and the only other solution would be to do it elsewhere and there would be a local reaction to that. Move forward as planned.



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1. Name [REDACTED]
2. Organization/Affiliation SAN JUAN RESIDENT
3. Address [REDACTED]
4. E-mail [REDACTED]
5. Please check here if you would NOT like to be on the mailing list
6. Please check here if you would like to receive a CD of the Final EIS when available

I support ~~Alternative 1~~
ACTION ALTERNATIVE #2
SCENARIO A,

MY FAMILY AND I BELIEVE WE LIVE
IN A WAR ZONE, WITH THE ROARING OF
THE JETS NIGHT AND DAY.
I DO NOT SUPPORT MY/OUR MONEY BEING
SPENT LIKE THIS! PEACE ON EARTH!

Please print • Additional room is provided on back

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Naval Facilities Engineering Command Atlantic
6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
2.a. Purpose and Need
2.j. Costs of the Proposed Action
2.m. Record of Decision/Preferred Alternative



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1. Name [REDACTED]

2. Organization/Affiliation Coupeville resident

3. Address [REDACTED] Coupeville WA 98239

4. E-mail

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

I am a resident of historic Coupeville. I live in town. I am not a supporter of COER or their tactics. I am not anti-Navy. I have lived in Coupeville since 2003 in the center of town and not outside of town in the noisiest flight path. I am a decent person who believes that we have the best and brightest military in the world. And because of that, I have to believe that the Navy has a reasonable way to meet its training needs without literally destroying this ~~area~~ historic place that we live. The impacts revealed in the EIS are unacceptable. The Navy's mission is security and

over

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YOUR INPUT MATTERS

- 1.a. Thank You
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.e. Public Involvement Process
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.r. Nonauditory Health Effects
- 8.f. Cultural Landscape and Impacts to Ebey's Landing National Historical Reserve

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preserve the freedoms and way of life we cherish in America.
The impacts as presented will destroy the very things that the Navy is here to protect in our liveable community, clean water, and safety. There has to be another place to train than a WWII OLF field that now has an increased population surrounding it.

I moved here before the Growlers. The noise from the Growlers is different. It is much worse and I believe it is dangerous to our health. It is certainly a threat to this place we live, have worked to build and raise families in.

The exponential increase in touch & go training as outlined in the EIS will make this place unliveable.

Honestly, I don't care about my property values vis a vis this issue. But I do care about the destruction of my community, the historical resene, and the very valid way of life by those who have built our community and have chosen to stay here.

We can do better. This is not an us vs. Navy issue. I believe military mission can be accomplished without ruining this place, harming our citizens, and destroying a nationally significant place.

Please work with us to find a solution that allows the Navy our our community to co-exist and support each other.

For more information, please visit the project website at whidbeyeis.com

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- 1.a. Thank You
- 12.h. Tourism
- 18.b. Average Carbon Dioxide per Aircraft
- 18.d. Washington State Greenhouse Gas Goals
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.o. Classroom Learning Interference
- 4.p. Sleep Disturbance
- 4.q. Potential Hearing Loss
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 5.a. Accident Potential Zones
- 7.d. Recreation and Wilderness Analysis and Study Area

1. Name [REDACTED]

2. Organization/Affiliation _____

3. Address [REDACTED] Pt Townsend, WA

4. E-mail [REDACTED]

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

Growlers should not be flying over Hilly area that has human in habitats. The noise & pollution caused by the planes creates a danger to all people. The planes DO NOT stay 6000' above sea level. The loud noise can ~~cause~~ cause hearing damage, increased stress hormones, cardiovascular disease, immune system compromise, psychological impacts in humans and wildlife. The interruptions to classrooms, up to 45 times per hour, severely affects the education of school children.

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How will you conduct training with Growler jets without seriously impacting the ^{Olympic} National Park and other National Parks, & World Heritage sites? How can you claim this will not seriously impact the visitors to these sites and the economies of tourism?

How will you help protect older buildings in our communities that are compromised by the vibration from the Growlers?

The excessive use of fuel required by Growlers is a massive expense to taxpayers and contributes greatly to emissions, thereby resulting in damaging effects to our climate.

Not only do these planes cause harmful effects in our area but also in Eastern Washington & beyond. I was in the Methow Valley last Jan. when a Growler flew a few hundred feet overhead, causing a deafening roar & the greatly effects all the people in the area. This happens very often there & is very disruptive and damaging to hearing and the peace of the area.

For more information, please visit the project website at whidbeyeis.com

Please print

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Public Meeting Comment Form

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To be most helpful, your comments should be clearly written and describe specific issues or topics. Comments may be submitted in one of the following four ways: **(1) Provide written comments at today's public meeting;** **(2) Speak with the stenographer, who will record your comments;** **(3) Submit your comments on the project website at www.whidbeyeis.com;** or **(4) Write your comments and mail them to: Naval Facilities Engineering Command Atlantic, 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS.**

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1. Name [REDACTED]

2. Organization/Affiliation _____

3. Address [REDACTED] Port Townsend, WA 98368

4. E-mail _____

5. Please check here if you would NOT like to be on the mailing list

6. Please check here if you would like to receive a CD of the Final EIS when available

I am opposed to the growler activity in our area and in Methow Valley. I was camping in Westrop, WA and a growler flew over us very low and the noise was so loud it terrified my grand daughter. She started screaming and I was trying to cover her ears and settle her down. They also disrupt activity during work, school hours.

Please print • Additional room is provided on back
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 Naval Facilities Engineering Command Atlantic
 6506 Hampton Boulevard, Norfolk, VA 23508, Attn: Code EV21/SS

YOUR INPUT MATTERS

- 1.a. Thank You
- 3.b. Flight Tracks and Federal Aviation Administration Regulations
- 4.l. Points of Interest
- 4.o. Classroom Learning Interference

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I was in Mazonia, VA area and one flew over so low I could see the pilot. The noise was so loud it hurt my ears and all people had to stop talking due to deafening sound.

They do not fly as high as they say and the noise is extremely disruptive

For more information, please visit the project website at whidbeyis.com

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YOUR INPUT MATTERS

Seattle, WA 98136

No war games on the Olympic Peninsula. It will put birds and all wildlife in danger. Besides much of the area being a National Park, the whole peninsula is a national treasure for it's wildness. Aren't we already putting too much stress on our wilderness and all of nature? Yes we are. Don't spoil some of the best of Washington.

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

7.d. Recreation and Wilderness Analysis and Study Area

Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to:

EA-18G EIS Project Manager
NAVFAC Atlantic Attn: Code EV21/SS
6506 Hampton Blvd.
Norfolk, VA 23508

1. First Name

[Redacted]

2. Last Name

3. Organization/Affiliation

[Redacted]

4. City, State, ZIP

[Redacted]

5. E-mail

[Redacted]

6. Please check here if you would NOT like to be on the mailing list

7. Please check here if you would like your name/address kept private

Growler engine noise is unacceptable on Lopez Island, with the ground vibrating, the windows rattling and when they are flying I can't conduct business meetings or phone calls. They are very disruptive at all hours of the

[Redacted]

- 1.a. Thank You
- 4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
- 4.n. Speech Interference (Indoor and Outdoor)
- 4.o. Classroom Learning Interference

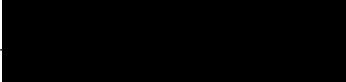

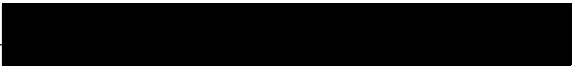


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- 1. Name 
- 2. Organization/Affiliation _____
- 3. Address  Anacortes
- 4. E-mail 
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

I support the scenario which provides the most realistic training for the people involved. It appears that Scenario A is the best option.

Despite the inconvenience to the people of Campville, I support Scenario A.



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YOUR INPUT MATTERS

- 1.a. Thank You
- 2.m. Record of Decision/Preferred Alternative

1.a. Thank You

port townsend, WA 98368

I am a retired member of the national guard and I do not think this plan is worth the cost to nature and citizens who live in the area.

Seattle, WA 98112

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

I live in Seattle and would like to relocate to Whidbey Island someday - purchase a home and retire there. I realize my comment (as a non-resident) carries less weight, but I am a native Washingtonian and my wife and I visit Coupeville and the National Historical Reserve quite often. As you know, the NHR is a remarkable place for many reasons. Its history, wildlife, vistas and trails are a wonderful asset for all the people of Washington. As a rain-shadow stop for migratory birds and waterfowl (as well as tourists) it is unmatched. It is truly a place that nourishes the spirit, and Coupeville is a wonderful community. With full due respect to the Navy and the mission they carry out on behalf of all Americans, I would respectfully ask that every avenue for alternative locations be explored to the fullest extent possible, including Eastern Washington. I realize there are significant logistical and cost considerations to take into account, but at the same time I feel that the Navy would be well-advised to recognize what we might all agree on - that expanded Growler touch-and-go carrier training simply may not be compatible, at the end of the day, with the other uses, interests and activities of the residents of Whidbey and the thousands of visitors who enjoy this area. I am not an anti-military extremist nor an environmental hard-liner, simply a Washingtonian who recognizes that early planning by the Navy would maximize its opportunities and long-term advantage.

Port Townsend, WA 98368

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 4.r. Nonauditory Health Effects

The expansion of the Growler Airfield Operations should be stopped due to the noise and stress it causes people who live in the area. This is a densely populated area that is growing due to Seattle growth and the operations cause health risks.

Port Angeles, WA 98362

Dear Sirs: I am a resident of the Olympic Peninsula who is concerned after reading the EIS documents, historical documents, and public involvement publically available. My concerns have not been alleviated by the well written EIS pdf files which included aerial diagrams with color coded information regarding flight patterns and decimal noise levels. Perhaps the US Navy Dept. actually believes the numerous Growler jet flights have no significant impact to the area, but even the EIS clearly suggests the impact will affect not only school children in Oak Harbor and Coopville, but will also have an impact on the recreational areas such as the National Park located on the Olympic Peninsula. Here is a quote from the EIS document that indicates the effect upon recreational activities in the National Park which is listed as a National Heritage Park in the USA. I am opposed to the continued use of the Olympic Peninsula as an electromagnetic warfare range. The concept of using the Olympic National Park as a location for fighter jet warfare training gives no consideration to the impact this activity will have on the tourist industry on the Olympic Peninsula. Preservation of natural habitat is not enhanced with use of the area for warfare training. The EIS document realizes the impact, but has no suggestion as how to mitigate the situation. The land use is controlled by the US Park Department who gives authorization for specific activities. I am seriously concerned that this proposal violates those authorized activities allowed by the US Park Dept. See quotation from the EIS document. Sincerely, [REDACTED] "With respect to recreation, noise may detract from the experience and enjoyment of visitors to parks and their perception of a landscape. Studies of the effects of aircraft noise on outdoor recreation outside of wilderness areas are limited; however, aircraft noise has been found to be a primary environmental factor causing visitors to parks to become annoyed and may detract from their overall experience of a park or recreational activity."

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

7.d. Recreation and Wilderness Analysis and Study Area

Port Angeles, WA 98362

Dear Sirs: I am a resident of the Olympic Peninsula who is concerned after reading the EIS documents, historical documents, and public involvement publically available. My concerns have not been alleviated by the well written EIS pdf files which included aerial diagrams with color coded information regarding flight patterns and decimal noise levels. Perhaps the US Navy Dept. actually believes the numerous Growler jet flights have no significant impact to the area, but even the EIS clearly suggests the impact will affect not only school children in Oak Harbor and Coupeville, but will also have an impact on the recreational areas such as the National Park located on the Olympic Peninsula. Here is a quote from the EIS document that indicates the effect upon recreational activities in the National Park which is listed as a National Heritage Park in the USA. I am opposed to the continued use of the Olympic Peninsula as an electromagnetic warfare range. The concept of using the Olympic National Park as a location for fighter jet warfare training gives no consideration to the impact this activity will have on the tourist industry on the Olympic Peninsula. Preservation of natural habitat is not enhanced with use of the area for warfare training. The EIS document realizes the impact, but has no suggestion as how to mitigate the situation. The land use is controlled by the US Park Department who gives authorization for specific activities. I am seriously concerned that this proposal violates those authorized activities allowed by the US Park Dept. See quotation from the EIS document. Sincerely, [REDACTED] "With respect to recreation, noise may detract from the experience and enjoyment of visitors to parks and their perception of a landscape. Studies of the effects of aircraft noise on outdoor recreation outside of wilderness areas are limited; however, aircraft noise has been found to be a primary environmental factor causing visitors to parks to become annoyed and may detract from their overall experience of a park or recreational activity."

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

7.d. Recreation and Wilderness Analysis and Study Area



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- 1. Name [REDACTED]
- 2. Organization/Affiliation _____
- 3. Address [REDACTED] SEQUIM, WA 98282
- 4. E-mail [REDACTED]
- 5. Please check here if you would NOT like to be on the mailing list
- 6. Please check here if you would like to receive a CD of the Final EIS when available

HAVING VIEWED DISPLAYS AND HAVING TALKED WITH THE EIS REPS. I WILL WALK AWAY WITH THE CONTINUED FEELING THAT THE PUBLIC'S VOICE IS NOT HEARD AND CONSIDERED.

THERE IS A MISTRUST IN THE GENERAL POPULATION REGARDING YOUR EIS. THIS ALL COMES ACROSS AS A "BONE DEEP".

THE NAVY'S PLANNED ACTIVITIES WILL HUGEY IMPACT THE OLYMPIC PENINSULA - TOURISM, COMMERCE AND EVERY DAY

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YOUR INPUT MATTERS

- 1.a. Thank You
- 12.h. Tourism
- 12.n. Quality of Life
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 19.d. Electronic Warfare
- 2.e. Public Involvement Process
- 4.q. Potential Hearing Loss

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QUALITY OF LIFE.

TO THE NAVY AUDIOLOGIST WAS NOT VERY CONVINCING IN REPLYING CONCERNS REGARDING JET NOISE AND LASTING HEARING DAMAGE -

A WORLD HERITAGE SITE WILL BE AFFECTED, WILDLIFE, ETC.

MOST PEOPLE, MYSELF INCLUDED, DON'T UNDERSTAND THE MECHANICS OF ELECTRO MAGNETIC WAR FARE. YOUR REPS ~~WAS~~ OVER SIMPLIFIED EXPLANATIONS -

THIS EVENT WAS INTERESTING, BUT DID NOT LESSEN MY ANXIETY AND WORRY ABOUT THE FUTURE OF LIFE ON OUR OLYMPIC PENINSULA.

For more information, please visit the project website at whidbeyis.com

Please print

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YOUR INPUT MATTERS

Whidbey2016 Comments Form A (07/16)

Draft Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island Complex

January, 2017 Comments

Fill in and mail with comments to: EA-18G EIS Project Manager NAVFAC Atlantic Attn: Code EV21/SS 6506 Hampton Blvd. Norfolk, VA 23508

1. First Name [Redacted]
2. Last Name [Redacted]
3. Organization/Affiliation N/A
4. City, State, ZIP Lopez Island, WA 98261
5. E-mail

- 6. Please check here [X] if you would NOT like to be on the mailing list
7. Please check here [X] if you would like your name/address kept private

- 1.a. Thank You
12.a. Socioeconomic Study Area
12.h. Tourism
2.c. Compliance with the National Environmental Policy Act
2.e. Public Involvement Process
2.k. Range of Alternatives
2.n. Alternatives Considered But Eliminated
4.b. NOISEMAP Model, Modeling Methodology, and Noise Sources
4.c. Advanced Acoustic Model
4.d. Day-Night Average Sound Level Metric
4.f. Noise Measurements/Modeling/On-Site Validation
4.g. Average Annual Day/Average Busy Day Noise Levels
4.h. C-Weighted Noise, Low Frequency Noise, and Vibrations
4.j. Other Reports
4.r. Nonauditory Health Effects
4.t. Noise Mitigation
7.h. San Juan Islands National Monument

**Draft Environmental Impact Statement for EA-18G "Growler" Airfield
Operations at Naval Air Station Whidbey Island Complex**

January, 2017 Comments

Note: For Draft EIS page citations and supporting references see www.QuietSkies.info

1. The Growler is known for its intense low frequency engine rumble, but low frequency noise impacts are ignored in the Draft.
Action: Evaluate impacts of the Growler at low frequencies using C-weighting (dBC) in addition to A-weighting (dBA).
2. Analysis of noise impacts in the Draft is based solely on computer simulation. To be valid for decision making, models must be verified.
Action: Provide the data used for simulation. Provide Growler noise measurements with afterburners at 100 feet behind the jet in one-third octave bands from 6 Hz to 20 kHz. Calibrate the computer model with actual noise measurements in locations throughout the region.
3. NOISEMAP is the computer model used in the Draft to predict noise impacts. A Department of Defense report found that NOISEMAP is outdated and new software was needed to provide "scientifically and legally defensible noise assessments" of the modern, high-thrust jet engines used in the Growlers.
Action: Redo the noise simulation using the more recent Advanced Acoustic Model.
4. The annual Day-Night Noise Level (DNL) metric used in the Draft was developed for commercial airports that operate 365 days a year. DNL is inappropriate for the intermittent but intensive military flight activity at NASWI. Averaging over the year assumes, without studies, that the quiet days mitigate the noisy days.
Action: Noise levels should only be averaged over active flying days.
5. The Draft dismisses long-term health impacts of jet noise because some studies are not conclusive.
Action: Recognize the impacts of Growler noise on health as documented in the World Health Organization "Guidelines on Community Noise" and "Night Noise Guidelines for Europe."
6. The Draft includes some independent noise measurements and ignores others.
Action: Incorporate the San Juan County noise reports and the Coupeville noise measurements performed by JGL Acoustics into the EIS analysis.

- 7. The Draft suggests that the lands and waters of the San Juan Islands (SJI) National Monument are exempt from National Environmental Policy Act (NEPA) protection. Protection was granted prior to the establishment of the SJI National Monument.

Action: Evaluate impacts of the Alternatives on the SJI National Monument and remove language stating that the Monument is exempt from NEPA.

- 8. The three Alternatives considered in the Draft are very similar and are based on old technology – a piloted jet that requires constant pilot training for safe carrier landing.

Action: Evaluate a new Alternative that deploys UCLASS jets (drones) instead of more Growlers to significantly reduce the need for land-based carrier training.

- 9. The Draft only examines socioeconomic impacts on Island and Skagit Counties. San Juan, Jefferson and Clallam Counties are or will be impacted by Growler noise. They are very dependent on outdoor recreation that is being harmed by Growler flight activity and receive little, if any, economic benefit from employment associated with NASWI.

Action: Examine socioeconomic impacts, including real estate values, on San Juan, Jefferson and Clallam Counties.

- 10. All Alternatives in the Draft are irrevocable decisions to add 35 or 36 Growlers at NASWI. While some potential noise Mitigation Measures addressed, there is no commitment.

Action: Commit to noise Mitigation Measures and their timelines in the Final EIS and Record of Decision.

- 11. The Draft EIS analysis is deficient in numerous areas. CEQ Regulation 1502.9 (a) states “If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion.”

Action: Supplement the EIS to address deficiencies identified in comments and offer further opportunity for public comment before the Final EIS is prepared.

- 12. Add your own comments here:

Seattle, WA 98107

The native and public lands throughout the Olympic national rainforest and Olympic peninsula are NOT for the military to use and abuse. This area is home to threatened and endangered animals that would be harmed if this took place. The disruption from demonstration and aircraft use would devastate the animal residents of the peninsula. These are parks that are meant for peace, education, and preservation. It is not your/our right to impose the military on every square inch of space you can imagine. Leave the peninsula alone!!!

- 1.a. Thank You
- 10.a. Biological Resources Study Area
- 10.b. Biological Resources Impacts
- 19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife
- 7.d. Recreation and Wilderness Analysis and Study Area

To Whom It May Concern,

2-9-2017

I am writing to comment on the Environmental Impact Statement for NAS Whidbey increasing flights at Outlying Field near Coupeville, Washington. I've lived on Whidbey Island for over 20 years and have chosen to live on South Whidbey because it is out of the flight (noise) path of your jets. But I have worked in Oak Harbor and in Coupeville which was heavily impacted by noise. When the Growlers arrived the noise was much worse than it has been in the past. My current job required me to teach a series of classes outside at County property near Outlying Field. However, trying to teach a class when the jets were flying is impossible. Not only can we not hear, it actually hurts to stand outside. People had to sit in their cars or in the building until we gave up and cancelled the class. Since then we've opted to move our classes farther away which cost the County rental fees.

I used to work at [REDACTED] where groups came to tour the Lighthouse and the Fort. I was their guide and again, when the jets were flying we would be interrupted frequently or have to reschedule the program because of the noise.

My favorite hike is on Ebey's Bluff, part of the Ebey's Landing National Historical Reserve. I'm not alone in this. The view from the bluff was on the cover of Sunset Magazine and is very popular to locals and visitors alike. There's also a State Park, Nature Conservancy property, camps for kids, retreat centers, a whale center, museum, B&Bs and restaurants and hotels. We get a lot of tourists visiting the Island that provide jobs and support many small businesses. Historic Coupeville has been a destination because of the quaint downtown and old family farms. The natural beauty here is something everyone appreciates with views over the water to the distant mountains. But Central Whidbey will suffer from a decrease in tourism if the number of flights increase as proposed. The proposed increase in flights, from 6,100 a year to potentially over 35,000 a year, as loud as Growlers are, threatens the livelihood of many who live and work here, in tourism, or any other business.

My concerns are small compared to many friends who live and work in the large new proposed Accident Potential Zones surrounding the Outlying Field. The APZ will restrict property rights and decrease their property values. The noise levels in this zone will be intolerable and I would be concerned with the health risks and psychological impact of living with the noise and low-frequency sound. Stationing all your Growlers here would also make us a target and increase our security risk.

The Environmental Impact Statement has not adequately addressed the current issue of the contamination of Coupeville area wells from PFOA, a toxic chemical from your fire-fighting foam, AFFF. We live on an Island where 70% of us rely on ground water for drinking. This is **very important** to us.

I hope you will take these concerns to heart. We have a high quality of life here on Whidbey Island. This could ruin it for thousands of people. Please choose the EIS scenario C, the least number of test flights.

Thanks for your consideration,

[REDACTED]
Freeland, WA 98249

- 1.a. Thank You
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.f. Economic Hardship and Impacts
- 12.h. Tourism
- 2.m. Record of Decision/Preferred Alternative
- 5.a. Accident Potential Zones

Coupeville, WA 98239

January 17th, 2017 My comments for the Navy: I have been a resident of Whidbey Island for past 16 years and have been living about a mile from the Navy's OLF {Outlying Field} at [REDACTED] for past 12 years. I am deeply concerned about the proposed increase of number of Growlers & practice time at OLF - leading to 600 % increase of noise. My concerns: *1 -the Navy has not yet done an adequate study of alternatives toOLF. They have used 'antedoctal' information only thus far. *2- the Navy has not property documented the noise level of their jets. They use 'averages' which are not accurate. When we moved here a statement from the Navy said noise levels would not exceed 60 decibels – my husband has recorded levels from 106-108 decibels. A HUGE discrepancy. And - ! - this is prior to the proposed increase. When we are outside and a growler flies over we are unable to talk, to hear, or to continue doing whatever we have been doing. The noise causes significant ear pain- raising concerns about hearing loss. It is only minimally better inside our home. * 3 - If the proposed increase is allowed we will be compelled to sell our home. Which we love. It will be life- changing for us. * 4 - our property value will likely plummet – putting us in unviable situation *5 - school children in coupeville will be interrupted mutlipe times an hour by the noise – causing both hearing and concentration problems *6 - businesses in coupeville will be negatively impacted by losing business directly associated with noise I want to ask loud and clear that the Navy do 3 important things *Complete an in depth fact-based study on alternative, less populated sites for the proposed increase of Growler practice and noise *Complete a more accurate assessment of the true noise level of the jet noise [do NOT use averages] *Seriously consider an alternative less populated site. I support the Navy – and I believe in the necessity of trained pilots. I hope for a situation in which the lives of people who live on Whidbey are equally supported. I think a solution of an alternate, less populated [off Island] site could work for both. [REDACTED]

- 1.a. Thank You
- 12.j. Property Values
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated
- 4.d. Day-Night Average Sound Level Metric
- 4.m. Supplemental Metrics
- 4.o. Classroom Learning Interference
- 4.q. Potential Hearing Loss

Victoria, British Columbia V8R 5X8

For your consideration. (1) I live in Victoria, BC and like many am often subjected to the low frequency noise from your training. It often seems like the onset of a small earthquake or a very large truck passing my front door. The sound has an effect which is not healthy. Please consider the following two research articles. If you have the proper clearances you can also access the DARPA research with the MONROE Institute. (2) This link to a study in the US National Library of Medicine, National Institutes of Health is very interesting regarding the health and learning of the children of the service men and women in the Growler program. The message I would take if I were in your position and had no choice but to continue with your efforts would be to move the kids to a safe distance. Their futures are being compromised.

<https://www.ncbi.nlm.nih.gov/pubmed/16201210> (3) "The Effects of Low-Frequency Noise and Vibration on People" Edited by Colin H. Hansen, University of Adelaide published 2007 • ISBN 0906522 45 5 • ix + 416pp • £42.50 The effect of low frequency noise and vibration on people is an important issue for communities around many industrial facilities and an transportation systems. There are a number of research groups throughout the world which have been actively researching these effects. This book brings together, for the first time in one set of covers, over thirty papers on the effects of low frequency noise and vibration on people. The papers are arranged under five headings: • Perception thresholds for low frequency noise • Effect of low frequency noise on people in terms of annoyance and sleep deprivation • Physiological effects of low frequency noise • Perception thresholds for low frequency vibration and the effect of low frequency vibration on people in terms of comfort and annoyance • Physiological and health effects of low frequency vibration Interest in the powerful effects of low frequency noise and vibration on people is widespread; thus this work will appeal to researchers in disciplines as diverse as acoustics, vibration, psychology, occupational health and environmental health It will also appeal to researchers in academia and designers of all kinds of industrial equipment, in terms of its generation of low frequency sound and its effect on whole body vibration. Regulatory and standards bodies, as well as Trade Unions, will also be interested in this work. I wish you luck in your no win situation. Perhaps the only solution to avoiding the adverse health outcomes will be the transition to drones with the testing and training being done in remote locations such as China Lake. Thank you if you have read this far. [REDACTED]

- 1.a. Thank You
- 2.n. Alternatives Considered But Eliminated
- 4.j. Other Reports
- 4.r. Nonauditory Health Effects

Coupeville, WA 98239

I bought a decibel meter and measured the noise of these planes outside my house. They reach as high as 108 decibels. At times there has been a plane overhead every minute or even less. Flights in the summer have gone as late as 11:00 PM. To me it is beyond conceivable that The Navy believes more flights are in any way acceptable. 12 years ago when we bought our home, we received a map that showed our area to be no louder than 60 decibels. More flights will destroy the livability of our property and greatly reduce it's sales value if it is even saleable with the added flights. NO to more planes/flights at OLF.

1.a. Thank You
12.j. Property Values
4.m. Supplemental Metrics

Coupeville, WA 98239

No one every came by my house to measure the noise level. How do you prepare an EIS without measurements? I have measured the noise level but the preparers did not. Take these planes to the miles and miles of desert lands and practice there. I have heard the argument that navy personel don't want to live out there. Does that make it right to bring the planes to beautiful Whidbey Island and chase inhabitants away with the noise? No, it does not! These planes do not belong here. To bring more planes here is unconscionable.

1.a. Thank You

2.n. Alternatives Considered But Eliminated

4.f. Noise Measurements/Modeling/On-Site Validation

, WA 98261

Dear Commander, The addition of growler operations at NAS Whidbey has proven harmful to business, tourism, human and wildlife health, and the quality of life on Lopez. The extended, loud roars and rumbles, for hours, very late into the night has caused property values to plummet because people don't want to live under as if under siege. We co-existed with the Prowlers for many years but this is a whole different story. Apparently you are doing simulated noise testing. Why not bring your dBC meters to south Lopez Island? Real-world testing is surely warranted if you want to continue this program; essential if you want to expand it. This is not about average noise. If someone fires a gun once a week without hearing protection the average annual dB will be almost zero; but that person will go deaf. Please fully considered the San Juan County Growler noise report? This is good, relevant, real information. Please clearly define what noise abatement and mitigation efforts will be made if the program continues, along with criteria for testing and corrections in the future, if this program is to continue. The many negative impacts need to stop or be significantly reduced. I am unclear why the program needs to expand, here, in a densely populated area. If the plan is to add 35-36 Growlers define the need and mitigation. And if this is not the final expansion, if there are another 40 Growlers to come later, you surely want to look at the whole picture before incremental action. Our government cannot simultaneously protect and harm its citizens. Please deny expansion of the program, and correct the serious problems with the current fleet size. Thank you.

- 1.a. Thank You
- 1.c. Segmentation and Connected Actions
- 2.a. Purpose and Need
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.n. Alternatives Considered But Eliminated
- 4.d. Day-Night Average Sound Level Metric
- 4.f. Noise Measurements/Modeling/On-Site Validation
- 4.j. Other Reports
- 4.m. Supplemental Metrics
- 4.t. Noise Mitigation

Kenmore, WA 98028

This DEIS is deficient in many respects, but most notable are: its use of outdated modeling for assessing Growler noise impacts; its failure to include all areas affected by these flights, including Olympic Peninsula wilderness; and its failure to consider a "no-action" alternative, as required under NEPA. I live in Kenmore, where I have heard Growlers flying by. It is very loud, very scary. I thought we were being attacked! I cannot imagine the operations increasing by 47%, to 130,000 flights. The EIS says 2-3 per day as if that's nothing. It IS HUGE! I am dismayed that this EIS does not address the area of operations - it only addresses local naval air station areas, which is bad enough but is not the only area affected. I am concerned about: increasing the potential for warfare, burning more fossil fuels that contribute to global warming, and destroying one of the last quiet places on earth (and the quietest in the United States), the Olympics, and the impact on all life there, not just human life. <http://onesquareinch.org/about/> I oppose the purchase of additional Growler aircraft on principle and on the basis of the deficiencies of this EIS to adequately state the real environmental impacts. Sincerely, [REDACTED]

1.a. Thank You

18.a. Climate Change and Greenhouse Gases

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

2.b. Scope of the Environmental Impact Statement and Analysis Conducted

2.c. Compliance with the National Environmental Policy Act

7.d. Recreation and Wilderness Analysis and Study Area

Shoreline, WA 98133

The Navy's plan to conduct war games on the Olympic Peninsula is totally unacceptable. This is an ecologically fragile area. And once again, a government agency is treating Native American lands as if were free lands for the US Government to do with as it pleases. It's time to remove the Naval station from the Peninsula completely. Maybe with the oceans rising, it will be flooded. There are already refugees from rising waters around the peninsula!

1.a. Thank You

18.a. Climate Change and Greenhouse Gases

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

19.d. Electronic Warfare

9.a. Consideration of Tribes

Port Townsend, WA 98368

I am writing to comment on the Navy's proposal to increase the fleet of Growler Jets. I oppose this proposal due to increase in noise, impact to wildlife, and concerns that this increase will further impact climate change.

- 1.a. Thank You
- 10.b. Biological Resources Impacts
- 18.a. Climate Change and Greenhouse Gases
- 4.v. Impacts to Domestic Pets, Livestock, or Wildlife

1.a. Thank You

Port Ludlow, WA 98365

Please move forward with all appropriate plans for placement of the growler aircraft, crew, support and dependents. The northwest has always been supportive of the United States Navy. Many communities benefit from the US Navy's bases and personnel through out the region. Your plans are in the making. We as residents know the United States Navy will recognize and protect the environment in the area and beyond. I live very near adult field and Whidbey Island. My family and I love to see the aircraft slicing through the atmosphere above our neighborhoods. We support our Navy and the personnel who come to this region. My children grew up with many family friends who were navy service dependent and students at our schools. You must know that these solid military families promote good citizenship at the core of our society. I served in the USN as a Seabee utilitiesman 3rd class P.O. I have many good memories of navy life. Our communities and neighborhoods need you here. Please list me and my family as class A support in your efforts to preserve our freedom and democracy . I do have one final question. Could you direct me to the office of the navy where I could request a color photograph of that beautiful EA-18G Growler, similar the one on the card you sent me recently. I would love to have it on my office wall. We support the whole navy in any and all endeavors. Thank you for the hard work you do! promote good

Coupeville , WA 98239

1.a. Thank You

2.m. Record of Decision/Preferred Alternative

I attended the meeting in Coupeville tonight. My take away is that more noise is coming. It appears that Coupeville will get a 3 fold increase to an increase of almost 6 times. No one believes that a 80/20 split of alternative C is possible. The Navy will do what is in the best interest of the Navy regardless what the public wants. A rational choice is C. Oak Harbor is already attuned to noise and more service families live there. Ebbeys reserve is no place for the jets. Nothing about the area lends itself to jet noise. I live in Coupeville and would prefer to see alternative C. Even B is untenable. I plan on being vocal about this until January 25. I was told time and again tonight that the Navy is listening. I don't believe that.

coupeville, WA 98239

I believe the first item to address is the effect on children. Coupeville has 3 schools located in it. Any increase will have an impact on them. Certainly the A and B options are very harmful. The students are as young as 5 and every study done shows that noise is more stressful/harmful the younger the person is. The idea of exposing children to this is ludicrous and hard to fathom. There is no reasoning that makes this right. Another point to be made is the impact that increasing the flight will have on Ebey's Landing National Historical Reserve, a part of the national parks. At this time, the reserve is a magnificent place. The opportunity to experience walking through that part of Whidbey Island cannot be measured. In Coupeville, we hear constantly from visitors how much they love, appreciate, and will return to central Whidbey. The EIS does not address a large number issues of concern. Among them are jet noise reduction, crash frequency, economic impact, alternatives for using Coupeville OLF, and numerous others. In closing, I want to express my complete opposition to both alternatives A and B. The Navy would be best served by exploring other options and not limit itself to Whidbey Island.

- 1.a. Thank You
- 1.b. Best Available Science and Data
- 1.d. General Project Concerns
- 2.b. Scope of the Environmental Impact Statement and Analysis Conducted
- 2.k. Range of Alternatives
- 4.o. Classroom Learning Interference
- 4.r. Nonauditory Health Effects
- 4.s. Health Impact Assessment and Long-term Health Study Requests
- 7.g. Ebey's Landing National Historical Reserve

Coupeville, WA 98239

I would like to comment against the proposal that would bring more than 20% of the flights would use OLF near Coupeville. There are many reasons to keep the flights away from OLF. The first is that the Ebbe Reserve is a unique, one of a kind place. It is a National Park, a place of quiet, solitude and reflection. To increase flights over the reserve would diminish if not remove all the the reserve is. Another reason not to have the flights at OLF is the town of Coupeville. At this time, Coupeville is a quiet town with small shops and several schools. It is a fact that the flights would disrupt the schools and impact the learning of students. The economic impact could be devastating. Whidbey Island is not the Navy's private testing area but home to many people and communities. This must be prevented from happening.

1.a. Thank You

12.c. Socioeconomic Impacts

4.o. Classroom Learning Interference

7.g. Ebey's Landing National Historical Reserve

1.a. Thank You

Port Townsend, WA 98368

Increased noise pollution is my greatest environmental concern when it comes to the expansion of the Growler operations. Many people (and animals) are sensitive to loud noises and quality of life is severely diminished by sustained loud noise.

TO: US NAVAL AIR BASE
ENVIRONMENTAL IMPACT STATEMENT PERSONNEL

FROM: [REDACTED]
[REDACTED]
COUPEVILLE, WA
98239
[REDACTED]

SUBJECT : ENVIRONMENTAL IMPACT STATEMENT FOR THE OUTLYING FIELD
AT COUPEVILLE WASHINGTON

I AM WRITING TO EXPRESS MY GRAVE CONCERN ABOUT THE FINDINGS
AND PROPOSALS EXPRESSED IN THE NAVY'S ENVIRONMENTAL IMPACT
STATEMENT FOR THE OUTLYING FIELD AT COUPEVILLE, WASHINGTON.

THE FINDINGS CONCERNING HEALTH ISSUES FOR LOCAL RESIDENTS ARE
THE MOST CRITICAL. RECENTLY, THE NAVY HAS ADMITTED THAT ONE OF
THE TWO DRINKING WATER WELLS AT THE OLF WERE CONTAMINATED AND
TESTS ON OTHER DRINKING WATER WELLS HAVE NOT BEEN COMPLETED.

THE FLINT MICHIGAN CONTAMINATED WATER SITUATION IS AN EXAMPLE
OF THE TERRIBLE HEALTH RISKS THAT MAY RESULT FROM CONTAMINATED
WATER AND CARELESS LOCAL GOVERNMENT MONITORING. I WAS
ESPECIALLY CONCERNED THAT A PROPOSAL TO PROVIDE AN ALTERNATE
SOURCE OF CLEAN WATER WOULD BE PROVIDED BY THE NAVY. THAT IS
OBVIOUSLY, NOT A SOLUTION THAT IS REALISTIC OR BENEFICIAL.
POLLUTING OUR WATER AND THEN PROVIDING ANOTHER ARTIFICIAL
SOURCE IS BEYOND IRRESPONSIBLE, IT IS REPREHENSIBLE.

ANOTHER CRITICAL HEALTH CONCERN IS THE LEVEL OF NOISE THAT
RESIDENTS MUST ENDURE DURING THE TOUCH AND GO FLIGHTS. I
UNDERSTAND THAT THE NAVY USED AN AVERAGING TECHNIQUE THAT
REPORTS THE NOISE LEVEL AT CONSIDERABLE LOWER DECIBELS THAN THE
ACTUAL LEVEL. IF WE ARE CONCERNED ABOUT THE HIGH DECIBEL LEVELS,
THE ACTUAL LEVELS EACH FLIGHT SHOULD BE REPORTED NOT AN AVERAGE

- 1.a. Thank You
- 11.a. Groundwater
- 11.d. Per- and Polyfluoroalkyl Substances
- 12.n. Quality of Life
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments
- 4.d. Day-Night Average Sound Level Metric
- 4.r. Nonauditory Health Effects

INCLUDING DAYS WHERE THERE WERE NO FLIGHTS. THE AVERAGING TECHNIQUE PRODUCES FALSE RESULTS THAT ARE DISHONEST.

MY CONCERN IS THAT THE NAVY HAS SHOWN SUCH HIGH DISREGARD FOR THE HEALTH AND SAFETY OF THE LOCAL RESIDENTS WITH THE TECHNIQUES USED AND CONCLUSIONS REACHED IN THIS REPORT. AS THE WIFE OF AN ARMY VIETNAM VETERAN, I KNOW THAT THE HEALTH, SAFETY, AND TRAINING OF NAVY PILOTS IS CRITICAL. HOWEVER, THE HEALTH AND SAFETY OF LOCAL RESIDENTS IS **EQUALLY IMPORTANT**. THE NAVY IS SUPPOSED TO SERVE AND PROTECT THE CITIZENS NOT DESTROY THE ENVIRONMENT AND SEVERELY COMPROMISE OUR LIVING CONDITIONS.

NO ONE WHO HAS LIVED NEAR THE FLIGHT PATH FOR THE TOUCH AND GO PRACTICES CAN HONESTLY SAY THAT THE NOISE LEVEL IS ACCEPTABLE. INCREASING THE NUMBER OF FLIGHTS IS AN ABSOLUTELY INTOLERABLE PROPOSAL.

I URGE THE NAVY TO RECONSIDER AND EXTEND THE DEADLINE DATE FOR CITIZEN RESPONSES AND ANSWER MANY OF THE QUESTIONS THAT RESIDENTS ARE ASKING CONCERNING THE CONCLUSIONS IN THIS REPORT.

Quilcene, WA 98376

I have been involved at seat-of-government levels in DoD and DoN defending the Navy's training requirements. I believe in the need for real-time training for all our forces to insure readiness. However, after reviewing the DEIS, I believe the Navy has not comprehensively reviewed alternatives to the current options including out of area and joint training. I also believe the Navy's data modeling for noise impact of airfield operations and sorties over the Olympic peninsula do not accurately reflect what will be the real time impact in the proposed operating areas.

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

2.k. Range of Alternatives

4.i. Points of Interest

Quilcene, WA 98376

I have been involved at seat-of-government levels in DoD and DoN defending the Navy's training requirements. I believe in the need for real-time training for all our forces to insure readiness. However, after reviewing the DEIS, I believe the Navy has not comprehensively reviewed alternatives to the current options including out of area and joint training. I also believe the Navy's data modeling for noise impact of airfield operations and sorties over the Olympic peninsula do not accurately reflect what will be the real time impact in the proposed operating areas.

1.a. Thank You

19.c. Olympic Peninsula, Olympic National Park, and at-Sea Training

2.k. Range of Alternatives

4.l. Points of Interest

1.a. Thank You

Deer harbor, WA 98243

I am very tired of listening to growlers. Sound travels across the water and I live in the path of your noise. I vote against more growlers. You're too obnoxious of a neighbor.

Richmond, CA 94805

- 1.a. Thank You
- 2.e. Public Involvement Process
- 2.f. Use of Public Comments

Please grant a 45-day or more extension on comments on the EIS for this. It is not acceptable to have the deadline conflict with the holiday season.

Nicasio, CA 94946

I have a treasured sister who lives in close enough proximity to the airbase where these Growler aircraft are stationed. It took her years of searching to find a peaceful, tranquil place to call home...only to find her mental well-being and tranquility shattered by the noise and related activities of these jets. Somewhere, somehow, some kind of balance must be struck to respect folks like my sister and other residents in the area who seek peace...and a peaceful place to live. These jets are the antithesis of such and I would encourage finding a more suitable, less impactful for local residents, place for housing and testing these forms of military hardware. I thank you on behalf of my family; my sister, in particular, who's health is fragile and these jets literally and figuratively shake her wellbeing. Thank you for the opportunity to express my concerns. Most sincerely, [REDACTED]

1.a. Thank You
12.n. Quality of Life
2.n. Alternatives Considered But Eliminated
4.r. Nonauditory Health Effects

1.a. Thank You

Camano Island, WA 98282

I support the Navy 100%. For 10 years, I lived on Holbeck Dr. on Camano Island, nine nautical miles from WNAS. When landing from the west, the Jets were loud. But we never got sick, never had hearing impairment, never had sleeplessness or nervous issues. Neighbors would stop and look up. Thoughts were for the young men and women flying those jets. They take the risks. That make us safe. They risk their lives. It is imperative that they have the best training possible. And I for one am sick and tired of the coer people, their lack of regard for our military, their NIMBY attitudes, their lies about the medical effects of the Jet sound. Good Luck you naval aviators and safe flying.

Port Townsend, WA 98368

We have a patriotic duty to keep our community, our citizens and our property values safe. Will you respect our wishes and explore the possibility that you are ignoring our right to clean water (PFAS in wells), our hearing (DEIS report ignoring the jet nose) and the property values? Please consider it.

1.a. Thank You
11.d. Per- and Polyfluoroalkyl Substances
12.j. Property Values
4.q. Potential Hearing Loss

PORT TOWNSEND, WA 98368

- 1.a. Thank You
- 2.k. Range of Alternatives
- 2.n. Alternatives Considered But Eliminated

The DEIS did not comply with the National Environmental Policy Act by failing to judiciously examine off Whidbey Island site to conduct flight carrier land practice.

1.a. Thank You

Anacortes, WA 98221

The ability for Naval Aviators to conduct sustained flight operations at and around NASWI (to include OLF Coupeville) is critical to the defense of our nation - this is not hyperbole. EA-18G Growlers are the only tactical electronic attack platform in the entire DoD inventory. They are truly a low density - high demand asset. Operating in the Pacific Northwest allows these aircraft to be near world-class training ranges (training ranges that are operated safely), additional naval bases, all the while benefitting from some of the finest flying weather in the United States. NASWI aircrew are top-flight professionals who not only operate in the airspace around Whidbey, but also live and raise families there as well. None of them are interested in degrading or damaging their own communities or families. NASWI aircrew go to great effort to comply with noise abatement procedures. The ability to train new aircrew and prepare experienced aircrew for operational deployments is critical. The noise cannot be ignored, but when balanced against the benefits provided to the Navy and the nation it is acceptable.

1.a. Thank You

Anacortes, WA 98221

As an EA-6B / EA-18G community veteran, I understand how critical it is to aviator safety, operational success, and national security to preserve future Growler aviators' ability to train at NAS Whidbey Island. I understand some local residents' dislike of the noise produced by jet engines but, quite frankly, a little inconvenience is a small price to pay to ensure the safety and success of current and future aviators.

1.a. Thank You

coupeville, WA 98239

Bring them on, when to meeting in coupeville was very informative. cant wait to get new planes! thank you!

1.a. Thank You

Coupeville, WA 98239

Attended information meeting at Coupeville High School. A lot of information was available. OLF Coupeville was here before I was born. I graduated from Coupeville High School in 1972. I have absolutely no problem with OLF. I have family in the Navy and training is essential. No problem with the use of OLF for training. If you have a problem with jet noise, MOVE!!!