2 Proposed Action and Alternatives

This chapter describes the Proposed Action, the process for selecting the range of alternatives considered in this Environmental Impact Statement (EIS), and the alternatives carried forward or eliminated from further analysis.

2.1 Proposed Action

In June 2013, the U.S. Department of Defense (DoD) Appropriations Act of 2014 added additional EA-18G "Growler" aircraft and the necessary funding to augment the Growler community. Therefore, on September 5, 2013, the United States (U.S.) Department of the Navy (Navy) announced the preparation of an EIS to evaluate the potential environmental effects associated with the potential introduction of two additional Growler expeditionary squadrons (13 aircraft).

In spring 2014, the Chief of Naval Operations (CNO) submitted an Unfunded Requirements List that included 22 additional Growler aircraft as part of the *Budget of the U.S. Government, Fiscal Year 2015*. An unfunded budget request represents a list of resources the Navy deems necessary to perform its mission but for which there is no current funding. Standing alone, an unfunded budget request neither ensures nor provides for additional funding, and, therefore, there is no certainty that requested funding could be provided by Congress. Nonetheless, since there is a possibility that additional Growler aircraft could be purchased in the future, the Navy has elected to revise the scope for the EIS effort in order to be transparent with the public as to future possibilities. The revised scope for this EIS was announced in October 2014. Subsequently, Congress authorized the purchase of additional Growler aircraft in 2015 and 2016. Congress may elect to purchase more aircraft in the future; therefore, the Navy is maintaining the current Proposed Action as reflected in this document.

Beginning as early as 2017, the Navy proposes to:

- continue and expand existing Growler operations at the Naval Air Station (NAS) Whidbey Island complex, which includes field carrier landing practice (FCLP) by Growler aircraft that occurs at Ault Field and Outlying Landing Field (OLF) Coupeville
- increase electronic attack capabilities by adding 35 or 36 aircraft to support an expanded DoD mission for identifying, tracking, and targeting in a complex electronic warfare environment
- construct and renovate facilities at Ault Field to accommodate additional Growler aircraft
- station additional personnel and their family members at the NAS Whidbey Island complex and in the surrounding community

This EIS does not analyze impacts of Growler training occurring at existing range complexes, Military Operations Areas (MOAs), and testing ranges. The Navy prepares separate National Environmental Policy Act (NEPA) documents addressing home basing and training because each of these documents is focused on the specific action that occurs at these locations. These actions are separated from other actions by their purpose and need, independent utility, timing, and geographic location. Growler operations at the NAS Whidbey Island complex do not automatically trigger larger military training activities in the Pacific Northwest. Likewise, Navy military readiness activities proceed independently of whether this Proposed Action is implemented. Moreover, NEPA documents that address training typically analyze various training activities of many different types of aircraft and ships within an existing

military range, whereas this EIS focuses on the facilities and functions to support Growler operations at the NAS Whidbey Island complex.

2.2 Development of the Range of Action Alternatives

In developing the proposed range of alternatives that meet the purpose of and need for the Proposed Action, the Navy carefully reviewed important considerations for the Growler community and Navy aviation training in addition to considering public comments. This review included requirements for Growler squadron training in light of Title 10 responsibilities, existing training requirements and regulations, existing Navy infrastructure, and CNO guidance to support operating Naval forces. Considerations included:

- 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.
- location of suitable airfields that provide for the most realistic training environment
- distance aircraft would have to travel to accomplish training
- expense of duplicating capabilities that already exist at Ault Field
- operational readiness and synergy of the small Growler community
- access to training ranges, Special Use Airspace (SUA), and military training routes
- effective use of existing infrastructure
- management of aircraft inventories, simulators, maintenance equipment, and logistical support
- effective use of personnel to improve operational responsiveness and readiness

The Navy established requirements for FCLP airfields in order to ensure that FCLP realistically trains Naval aviators to land on an aircraft carrier and used these requirements to inform the development of alternatives. These requirements are crucial because landing on an aircraft carrier is perhaps the most difficult operation in military aviation. To be suitable for FCLP, the airfield should have the following attributes:

- Field elevation is at or below 1,000 feet above mean sea level, in order to duplicate the atmospheric conditions at sea.
- Runway width, length, and weight-bearing capacity are sufficient to safely support tactical jet aircraft.
- 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.
- Ambient lighting is low in order to duplicate the at-sea carrier environment at night as closely as possible.
- 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.
- The airfield is not beneath the lateral limits of Class B or C airspace.

- Airspace permits the replication of the aircraft carrier landing pattern.
- The airfield is available 24/7 to support the exclusive use of FCLPs without interruption, except in the case of emergency.
- 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.
- A MK-14 Improved Fresnel Lens Optical Landing System (IFLOLS), a Manually Operated Visual Landing Aid System, and supporting equipment are available. Because the Navy only has 27 IFLOLS worldwide and this equipment is no longer being manufactured, the Navy would have to move an existing system or contract for the manufacture of an additional IFLOLS if the FCLPs were to be conducted at an airfield that does not currently support them.
- A Landing Signal Officer work station is available with the necessary supporting equipment, including a weather terminal, ultra-high frequency and very high frequency radios, IFLOLS controls, an Aldis lamp for emergency communications, and an abeam position marker light visible to pilots in the FCLP landing pattern.

Furthermore, the Navy evaluated past home basing decisions, reconsidered alternatives previously eliminated from analysis, and considered options suggested by the public during two scoping periods. Section 2.4 describes alternatives that meet the purpose of and need for the Proposed Action and are analyzed in this EIS. Section 2.5 explains the reasons for eliminating some alternatives from further consideration in this EIS.

2.3 Alternatives Carried forward for Analysis

Under the Proposed Action, the Navy is evaluating potential environmental impacts of continuing and increasing airfield operations, establishing facilities and functions at Ault Field to support an expanded Growler mission, and associated personnel changes for the following alternatives. The EIS evaluates the No Action Alternative as well as three action alternatives for implementing the Proposed Action.

2.3.1 No Action Alternative

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.

Under the No Action Alternative, the Proposed Action would not occur; this means the Navy would not operate additional Growler aircraft and would not add additional personnel at Ault Field, and no construction associated with the Proposed Action would occur. The No Action Alternative would not meet the purpose of or need for the Proposed Action; however, the conditions associated with the No Action Alternative serve as reference points for describing and quantifying the potential impacts associated with the proposed alternatives. For this EIS, the Navy analyzes 2021 as the representative year for the No Action Alternative because it represents conditions when events at Ault Field for aircraft loading, facility and infrastructure assets, personnel levels, and number of aircraft unrelated to the Growler Proposed Action are expected to be fully implemented and complete. Therefore, with these other actions complete, the analysis isolates the impacts of this Proposed Action of adding additional Growler aircraft and personnel and associated construction. Conditions that are evaluated as implemented and fully complete prior to 2021 include the following:

- the P-3C Orion/EP-3 will be retired from the Navy in 2021
- six P-8A Poseidon squadrons will be home based at Ault Field by 2020
- projected volumes of transient and other aircraft utilizing Ault Field in 2021 based on current and historical volumes of these aircraft

2.3.2 Action Alternatives

The basic action alternatives assessed in this EIS consist of force structure and operational changes to support an expanded DoD capacity and include variations of the following factors:

- number of aircraft assigned per squadron
- number of expeditionary squadrons
- number of personnel
- distribution of aircraft operations at Ault Field and OLF Coupeville (Scenarios A, B, and C for each action alternative)

Furthermore, each force structure alternative has different facility construction needs and personnel numbers, each of which has additional impacts on the environment.

Fundamental to understanding the differences in force structure between the action alternatives is understanding the three types of Electronic Attack squadrons home based at the NAS Whidbey Island complex--carrier squadrons, expeditionary squadrons, and the training squadron--and the training requirements for each squadron type. The number of FCLPs that would be conducted in the complex is dictated by the type of squadron.

Carrier Squadrons

Carrier squadrons operate from an aircraft carrier when deployed. Aircrews must conduct FCLP on land prior to deployment in order to gain initial carrier landing qualification and in order to reestablish qualification. Qualifications are temporary because the skill is perishable, and, after a certain period, qualifications must be reestablished by aircrews conducting FCLP before being allowed to land on the ship. Currently, nine carrier squadrons are at Ault Field. Under each alternative analyzed in this EIS, including the No Action Alternative, nine carrier squadrons would continue to be home based at Ault Field. Alternative 1 would add three aircraft to each of the nine existing squadrons, while Alternatives 2 and 3 would add two aircraft. Depending on the alternative selected, each carrier squadron would consist of five to eight aircraft and nine to 16 aircrews.

Expeditionary Squadrons

These squadrons are deployed from Ault Field and operate from various land bases throughout the world. Because they are land based, they do not normally conduct FCLP. The expeditionary squadrons support Regional Combatant Commander requirements, U.S. Air Force expeditionary wings, U.S. Marine Corps expeditionary forces, and joint coalition forces. These squadrons do not train at OLF Coupeville. Currently, three expeditionary active squadrons and one expeditionary reserve squadron are at Ault Field. Under Alternative 1, there would be no change to the existing configuration of the three expeditionary squadrons. Alternative 2 would create five expeditionary squadrons, and Alternative 3 would increase the number of aircraft assigned to the three existing expeditionary squadrons. Depending on the alternative selected, an expeditionary squadron would consist of five to eight aircraft and 10 to 16 aircrews.

Training Squadron (also known as the Fleet Replacement Squadron, or FRS)

The training squadron provides post-graduate training for assigned personnel (aircrews and maintainers). Training is provided for both carrier and expeditionary aircrews. The only Growler training squadron is home based at Ault Field. All alternatives would add aircraft to the FRS.

Action Alternative 1

Alternative 1 would expand carrier capabilities by adding three additional aircraft to each of the existing nine carrier squadrons and augmenting the FRS with eight additional aircraft (a net increase of 35 aircraft). Alternative 1 would add an estimated 371 Navy personnel and 509 dependents to the region.

Action Alternative 2

Alternative 2 would expand expeditionary and carrier capabilities by establishing two new expeditionary squadrons, adding two additional aircraft to each of the nine existing carrier squadrons, and augmenting the FRS with eight additional aircraft (a net increase of 36 aircraft). Alternative 2 would add an estimated 664 Navy personnel and 910 dependents to the region.

Action Alternative 3

Alternative 3 would expand expeditionary and carrier capabilities by adding three additional aircraft to each of the three existing expeditionary squadrons, adding two additional aircraft to each of the nine existing carrier squadrons, and augmenting the FRS with nine additional aircraft (a net increase of 36 aircraft). Alternative 3 would add an estimated 377 Navy personnel and 894 dependents to the region.

This EIS analyzes the distribution of annual FCLPs between Ault Field and OLF Coupeville resulting from the three action alternatives. Annual FCLPs are calculated based on the number of FRS Growler pilots requiring initial Growler carrier landing training and the number of Fleet pilots requiring recurring carrier landing training, not by the number of Growler aircraft. Scheduling of FCLPs includes some uncertainty and variability because these operations are tied to global events, weather, and aircraft carrier operations, and therefore scheduling requires flexibility to conduct FCLPs between two airfields.

Although 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 (i.e., the squadron type determines its FCLP requirement). An alternative that has an increased number of carrier aircraft would result in increased FCLP requirements, which would result in increased noise impacts to the community because of the intense and focused nature of FCLPs when they occur. This is equally true for alternatives that increase the number of training aircraft, which also increases the demand for FCLPs. In contrast, alternatives that would increase expeditionary squadrons and not carrier squadrons would have a correspondingly lower noise impact on the environment because expeditionary aircraft do not normally require FCLP.

In order to determine how the distribution of operations might affect noise impacts at OLF Coupeville and Ault Field, this EIS evaluates the following three sub-alternatives, which are operational scenarios for each action alternative listed above:

Scenario A

Twenty percent of all FCLPs conducted at Ault Field and 80 percent of all FCLPs conducted at OLF Coupeville

Scenario B

Fifty percent of all FCLPs conducted at Ault Field and 50 percent of all FCLPs conducted at OLF Coupeville

Scenario C

Eighty percent of all FCLPs conducted at Ault Field and 20 percent of all FCLPs conducted at OLF Coupeville

The above three scenarios (A, B, and C), in combination with the alternatives described in Table 2.3-1 (Alternatives 1, 2, and 3), provide a total of nine operational conditions that are fully evaluated in this EIS analysis. The Secretary of the Navy will be able to select a final alternative/scenario combination from the range of nine analyzed in this EIS.

Scenarios are based on the distribution of FCLPs between Ault Field and OLF Coupeville (Table 2.3-2). The FCLP percentages for each scenario that are expressed in this analysis are intended to analyze levels of total aircraft operations. The percentages are not intended to provide a firm division of FCLPs between airfields. 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. However, because the Navy recognizes that noise impacts to the community are an unavoidable adverse effect of the Proposed Action, this EIS analyzes three operational scenarios at the expense of ideal training.

Table 2.3-1 Summary of EA-18G Growler Aircraft Changes by Alternative for the Environmental Impact Statement for EA-18G Growler Airfield Operations at the Naval Air Station Whidbey Island Complex

EIS Alternatives	Growler Force Structure Changes	Additional Growler Aircraft by Role	Total Growler Aircraft at Ault Field ¹	Total Operations at NAS Whidbey Island Complex ²
No Action Alternative (No additional Growler	• None	• None	82	88,600
Aircraft) Alternative 1 (+35 additional Growler Aircraft)	 3 additional aircraft to each existing carrier squadron Additional training squadron aircraft 	 27 carrier squadron aircraft 8 training aircraft 	117	Ault Field Scenario A: 94,400 Scenario B: 107,500 Scenario C: 120, 800 OLF Coupeville Scenario A: 35,500 Scenario B: 22,300 Scenario C: 9,200 Total Scenario A: 129,900 Scenario B: 129,800 Scenario C: 130,000
Alternative 2 (+36 additional Growler Aircraft)	 2 new expeditionary squadrons 2 additional aircraft to each existing carrier squadron Additional training squadron aircraft 	 10 expeditionary squadron aircraft 18 carrier squadron aircraft 8 training aircraft 	118	Ault Field
Alternative 3 (+36 additional Growler Aircraft)	 3 additional aircraft to each existing expeditionary squadron 2 additional aircraft to each existing carrier squadron Additional training squadron aircraft 	 9 expeditionary squadron aircraft 18 carrier squadron aircraft 9 training aircraft 	118	Ault Field

Table 2.3-1 Summary of EA-18G Growler Aircraft Changes by Alternative for the Environmental Impact Statement for EA-18G Growler Airfield Operations at the Naval Air Station Whidbey Island Complex

ı				Total Growler	Total Operations at NAS
		Growler Force	Additional Growler	Aircraft at	Whidbey
	EIS Alternatives	Structure Changes	Aircraft by Role	Ault Field ¹	Island Complex ²

Notes:

Key:

EIS = Environmental Impact Statement

NAS = Naval Air Station
OLF = outlying landing field

Table 2.3-2 Comparison of FCLPs by Alternative at the NAS Whidbey Island Complex

Alternative	Ault Field	OLF Coupeville	Total FCLPs
Alternative 1			
Scenario A (20/80 FCLP Split)	8,700	35,100	43,800
Scenario B (50/50 FCLP Split)	21,900	21,900	43,800
Scenario C (80/20 FCLP Split)	35,100	8,800	43,900
Alternative 2			
Scenario A (20/80 FCLP Split)	8,400	33,600	42,000
Scenario B (50/50 FCLP Split)	21,000	21,000	42,000
Scenario C (80/20 FCLP Split)	33,600	8,400	42,000
Alternative 3			
Scenario A (20/80 FCLP Split)	8,400	33,500	41,900
Scenario B (50/50 FCLP Split)	21,000	20,900	41,900
Scenario C (80/20 FCLP Split)	33,500	8,300	41,800
No Action Alternative	14,700	6,100	20,800

The FCLP percentages for each scenario that are expressed in this analysis are intended to analyze levels of operations at Ault Field and OLF Coupeville. The percentages are not intended to provide a firm division of FCLPs between airfields. Training requirements may require FCLPs that fall within a range of these percentages.

2.3.3 Description of Alternatives

2.3.3.1 Aircraft and Personnel Loading

The action alternatives would add an additional 35 or 36 aircraft to the existing Growler community at Ault Field as compared to No Action Alternative, for a total of 117 or 118 Growler aircraft. All action alternatives would result in an increase in personnel when compared to No Action Alternative at Ault Field. The increase in personnel across the three action alternatives would range from 371 to 664 to support the addition of 35 or 36 new aircraft assigned to Ault Field as a result of this Proposed Action (Table 2.3-3).

These are operational aircraft, and it is possible for additional Growler to be present at the NAS Whidbey Island complex (e.g., undergoing maintenance or in caretaker status). Airfield operations are determined by mission requirements and training needs for pilots and aircrews, not by the number of aircraft present.

Total airfield operations at NAS Whidbey Island complex are approximate. Detailed airfield operations broken out by airfield and alternative/scenario are provided in Sections 3.1 and 4.1.

Table 2.3-3 Aircraft, Personnel, and Dependents by Alternative for the Environmental Impact Statement for EA-18G Growler Airfield Operations at the Naval Air Station Whidbey Island Complex

Alternative	Growler Aircraft Loading	Total Growler Aircraft	Growler Personnel Loading	Total Growler Personnel	Dependents
No Action Alternative	 9 carrier squadrons (45 aircraft) 3 expeditionary squadrons (15 aircraft) 1 Reserve Squadron (5 aircraft) 1 training squadron (17 aircraft) 	82	517 Officer3,587 Enlisted	4,104	5, 627
Alternative 1	 9 carrier squadrons (72 aircraft) 3 expeditionary squadrons (15 aircraft) 1 Reserve Squadron (5 aircraft) 1 training squadron (25 aircraft) 	117 (+35)	633 Officer3,842 Enlisted	4,475 (+371)	6,136 (+509)
Alternative 2	 9 carrier squadrons (63 aircraft) 5 expeditionary squadrons (25 aircraft) 1 Reserve Squadron (5 aircraft) 1 training squadron (25 aircraft) 	118 (+36)	655 Officer4,113 Enlisted	4,768 (+664)	6,537 (+910)
Alternative 3	 9 carrier squadrons (63 aircraft) 3 expeditionary squadrons (24 aircraft) 1 Reserve Squadron (5 aircraft) 1 training squadron (26 aircraft) 	118 (+36)	633 Officer3,848 Enlisted	4,481 (+377)	6,144 (+894)

2.3.3.2 Aircraft Operations

The Navy used the Naval Aviation Simulation Model as the best available tool for modeling airfield flight operations to support the noise assessment and other operational planning (Tables 2.3-1 and 2.3-2).

The Naval Aviation Simulation Model is a computer-based simulation model that quantitatively assesses airfield and airspace capacity, analyzing a wide range of military aviation operational alternatives, under proposed alternatives. The Proposed Action would add an additional 35 or 36 Growler aircraft to the existing Electronic Attack community at Ault Field, for a total of 117 or 118 Growler aircraft. All action alternatives would result in an increase in total annual airfield operations over the No Action Alternative at the NAS Whidbey Island complex, with operations split between Ault Field and OLF Coupeville. Growler operations would be conducted in a manner similar to current Navy aircraft training missions conducted at the NAS Whidbey Island complex. Annual airfield operations would increase approximately

45 percent to 46 percent (depending on the alternative and scenario selected) over the No Action Alternative to support the addition of 35 or 36 new aircraft assigned to Ault Field.

2.3.3.3 Facility and Infrastructure Requirements

The Proposed Action would require certain facilities and infrastructure to support the necessary training, maintenance, and operational requirements. The Navy evaluated existing and planned facility resources at Ault Field to identify the types and sizes of additional and/or modified facilities and infrastructure needed to support the Proposed Action. The Navy developed conceptual plans for modifying existing assets (e.g., buildings) or constructing new facilities and infrastructure where needed to resolve deficiencies. New construction, renovation, and modification of facilities and infrastructure would be required for each action alternative. A general description of the facilities and infrastructure required for additional Growler aircraft and personnel, and to meet the needs of the Proposed Action, is provided below:

Airfield Pavement

Airfield pavement design is determined predominantly by the airfield traffic, maximum gross weight of the aircraft the airfield must support, and environmental conditions to which the pavement will be subjected.

• Aircraft Parking Apron

Aircraft parking aprons consist of paved areas in proximity to maintenance hangars; they provide parking space, tie-down locations, and areas to perform maintenance for aircraft. Each parking apron provides sufficient area to allow safe separation between individual aircraft and provide taxi lanes for aircraft movement.

Flight Training and Briefing Building

This building provides space for briefing rooms and classrooms, instructor pilot offices, ready rooms, flight planning rooms, flight simulators, and other support space.

• Maintenance Hangars

Maintenance hangars provide equipment and personnel with a weather-protected shelter for inspection, servicing, and maintenance of squadron aircraft as well as emergency shelter for operational aircraft.

Armament Storage

Armament storage provides space and utilities to perform maintenance on bomb racks, wing and centerline pylons, missile launchers, and adapters.

Mobile Maintenance Facility

A storage area that provides space to store Mobile Maintenance Facility tactical support vans along with their major and ancillary equipment prior to and after deployment.

Figure 2.3-1 shows the locations of all required facilities under each alternative. New Growler aircraft would be accommodated by existing Growler parking apron space. Enough space currently exists to park 103 Growler aircraft on the parking apron adjacent to Growler hangar spaces. The completion of ongoing military construction projects in August 2016 will increase the number of aircraft parking spots to 113. New construction under all alternatives to support new Growler aircraft and personnel would include additional armament storage, hangar facilities, Mobile Maintenance Facility storage area, and expanded personnel parking areas. All three action alternatives would require repairs to inactive

07 bile Maintenance Facility Storage (Alternatives 1, 2 & 3) Alternatives 1, 2 & 3) langar 12 Expansion for FRS **SOURCE**: NAS Whidbey Island 2013; Wyle 2015 ESRI 2012; Ecology and Environment 2015; NAIP 2015; Island County 2012. City Figure 2.3-1 Installation Area **Ault Field** Proposed Construction Planned Construction under Alternatives 1, 2, and 3 Whidbey Island, Island County, WA

Figure 2.3-1 Ault Field Planned Construction under Alternatives 1, 2, and 3

taxiways for aircraft parking in addition to expanded hangar space. All planned construction activities would occur on the north end of the flight line at Ault Field. New parking areas, maintenance facilities, and armament storage would be constructed along Enterprise Road at the north end of Charles Porter Road. No construction would be required at OLF Coupeville because it is capable of supporting increased operational requirements in its current state.

For hangar space under Alternative 2, a two-squadron hangar would be constructed on the flight line adjacent to Hangar 5. For all three action alternatives, Hangar 12 would be expanded to accommodate additional training squadron aircraft. Table 2.3-4 provides a summary of the planned land disturbance for construction activities under all alternatives and the total amount of new impervious surface that would be generated. Once constructed, facilities and parking would add up to approximately 2 acres of new impervious surface at the installation.

Table 2.3-4 Total Facility Construction and New Impervious Surface for Proposed Construction Activities under All Alternatives

Additional Growler Aircraft to Support	Alternative 1 35	Alternative 2 36	Alternative 3 36	No Action Alternative 0
Total Facility Construction (acres)	6.6	7.4	6.6	0
Total New Impervious Surface (acres)	2.1	2.1	2.1	0

2.4 Alternatives Considered but Not Carried Forward for Further Analysis

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.

2.4.1 Previously Scoped Alternatives

When the Navy initially proposed this action in the fall of 2013, it considered action alternatives based on the number of proposed Growlers that were expected in potential Congressional appropriations envisioned at that time (up to 13 additional Growler aircraft). The Navy then added alternatives in the fall of 2014 that included additional aircraft, for a total of up to 36 Growler aircraft. Since that time, Congress appropriated more Growlers than were envisioned in two of the alternatives considered during the fall of 2014. It would be unreasonable to continue considering alternatives that evaluate fewer aircraft than Congress has appropriated; therefore, these alternatives were removed from further analysis.

2.4.2 Moving Some or All of the Growler Community Aircraft Elsewhere

The Navy considered but eliminated re-locating Growler aircraft to alternative locations, which would essentially entail moving some or all of the Growler community to another location. The Navy's Electronic Attack community has been based at NAS Whidbey Island for over 45 years. As a result, Ault Field has developed into a "center of excellence" supporting every aspect of the Navy's Airborne Electronic Attack mission. The Secretary of Defense directed that the tactical Airborne Electronic Attack mission be the exclusive responsibility of the Navy. The DoD has directed the Navy to provide Electronic Attack capability, initially with the Prowler and now with the Growler, to all combatant commanders and services. The Navy is required to preserve and cultivate the expertise and knowledge base of the Growler community to support DoD requirements. This community is composed not only of active duty

and reserve aircrew and maintenance personnel but also a training squadron, civilian maintenance experts, training schools, and dedicated Growler facilities that only exist at NAS Whidbey Island. Continuing to maintain the Growler community at Ault Field maximizes the efficiency of its support facilities, simulation devices, training, and doctrine development and the utilization of on-site support personnel. The elimination of alternatives that considered moving some or all of the Growler community to other locations remains consistent with historical Navy decisions. Specifically, the Navy decided in 2005 and 2012, when analyzing the replacement of the EA-6B "Prowler" with the Growler, and again when analyzing maintaining the expeditionary Electronic Attack mission, that any alternative that divided or split the unique Electronic Attack community into multiple sites did not meet the purpose and need of the Proposed Action because it would reduce the efficiency and effectiveness of the community for the reasons noted below.

The decision for single-site home basing is reviewed annually under the CNO's strategic laydown and dispersal plan and is consistent with Navy aviation policy to maximize efficiency of operations by colocating operational squadrons with support functions, training ranges, and airfields. Single-siting the Growler community at Ault Field provides:

Operational synergy

Having a single hub for the Growler community promotes success and allows for:

- Co-located leadership. Ault Field is the home of the U.S. Pacific Fleet's Electronic Attack Wing,
 which oversees all of the Navy's Growler squadrons. Commander, Electronic Attack Wing Pacific,
 interacts daily with the Growler squadrons and FRS to ensure standardization in operations and
 maintenance of this small community, management of aircraft inventories and manpower
 resources, and technical leadership across the Growler community.
- Improved interactions on a daily basis. Success in the Growler community is assisted by the concentration in one place of Growler squadrons and schools. This allows personnel to interact on a daily basis to develop new tactics, standardize procedures, and cultivate community-wide knowledge to support this unique and highly specialized operational mission.
- **Community-wide efficiencies.** Efficiencies are realized through shared maintenance and logistics efforts, flight line service support, and sharing aircraft and personnel when necessary. Mutual support is important to ensure efficient reassignment of resources between squadrons when necessary--including personnel (aircrew and maintenance), parts, and aircraft.
- Enhanced training and squadron support. Growler personnel receive specialized training specific to their mission as part of the training squadron syllabus. Once personnel complete this training, they can be immediately transferred to carrier or expeditionary Growler squadrons without the need to relocate to another geographic area. Co-location of the training squadron with carrier and expeditionary squadrons eases the process of transferring personnel and aircraft, including the replacement of squadron personnel.
- Effective knowledge transfer within the Growler community. New aircraft support the same mission and require the same expertise that resides currently at Ault Field. New members to the Growler community will learn from personnel already residing in the community.
- Personnel efficiencies. Costs associated with "permanent change of station" moves account for
 a large portion of the Navy's annual budget. Specifically, the Navy's budget for such moves was
 \$937,745,000 in Fiscal Year 2016, out of a total of \$28,262,396,000 for all personnel costs (Navy,

2015a). Any reduction in moves not only saves money, but it reduces the impact on personnel by rendering as unnecessary disruptive moves, thus allowing service members to be more readily deployable. 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.

Proximity to training ranges and Special Use Airspace, and electromagnetic frequency availability

The northern Puget Sound region of the Pacific Northwest has uniquely unencumbered SUA and military training routes (MTRs) due primarily to the relatively low volume of commercial air traffic. This limited air traffic and clear airspace allows this SUA and MTRs to support Growler training, including the current and future training requirements. Numerous other SUAs and MTRs that support larger installations and aviation communities are at or near capacity due in part to highly congested airspace. Additionally, through more than 40 years of operating in the Pacific Northwest, the Navy's Electronic Attack community obtained unparalleled access to electromagnetic frequency bands critical to electronic attack training. Unique training areas near Ault Field support the Growler community and include:

- Naval Weapons System Training Facility (NWSTF) Boardman/Restricted Area 5701/Boardman MOA. This range provides more than approximately 47,000 acres of land and approximately 360 square nautical miles (nm²) of SUA. The property was formally transferred from the Air Force to the Navy in November 1960. NWSTF Boardman is the principal regional air-to-ground range, providing the only terrestrial impact area and restricted low-altitude training airspace for use by NAS Whidbey Island-based student and Fleet aircrews. NWSTF Boardman and its associated airspace also support occasional training requirements of other DoD units, and the SUA is used by DoD offices to conduct Unmanned Aircraft System testing and training.
- Northwest Training Range Complex, including overland and overwater SUA, seaspace, and mobile threat emitter simulators. This range complex covers more than approximately 122,000 nm² of ocean and 46,000 nm² of airspace, including:
 - Darrington Operating Area. This area is a stationary altitude reservation activated through the Federal Aviation Administration for Growler use for functional check flights and electronic counter-measure training.
 - Olympic, Okanagan, and Roosevelt MOAs, including associated Air Traffic Control Assigned Airspace, which represent the primary area for Growler training. These areas provide more than approximately 11,000 nm² of airspace.
 - Pacific Northwest Electronic Warfare Range. This area includes electronic emitters that transmit signals skyward to Growler aircraft for aircrews to detect, locate, and identify.

Efficient Use of Existing Infrastructure

Ault Field maintains all of the Navy's Growler manpower and infrastructure support, which cannot be duplicated without extensive construction, disruptive relocation of military personnel and family members, and the purchase of additional equipment to duplicate that which already exists at Ault Field, as described below:

Location of specialized Growler weapons systems
 The Growler has unique and specialized weapons systems, the ALQ-99 and ALQ-218. There is a limited inventory of the ALQ-99 and ALQ-218 pods. Therefore, pod assets must be shared, and

single siting ensures optimal reliability, maintenance, and availability of this unique weapon system. Ault Field currently maintains the specialized equipment necessary to maintain the ALQ-99 and ALQ-218 weapons systems.

• EA-18G-specific training schools

Ault Field is the home of the Center for Naval Aviation Tactical Technical Unit, which is the only center for Growler-unique aircraft maintenance training, and the Electronic Attack Weapons School, which provides comprehensive advanced training to Growler aircrews and extensive weapons-related training to Growler ordnance and maintenance personnel.

• Growler-specific aircrew simulators

The Navy currently has six Growler aircrew simulators, and all of them are located at Ault Field. Aircrew simulators are used on a daily basis by Growler squadrons and the FRS to satisfy a myriad of flight-training requirements. Modern military simulators are multi-million dollar sophisticated equipment with dedicated support facilities, and moving some or all of the Growler community would necessitate the purchase of additional simulators otherwise not needed.

Fleet Readiness Center Northwest

The Fleet Readiness Center Northwest provides intermediate and depot-level aircraft maintenance support for the Growler-specific aircraft components and other aircraft based at Ault Field. Single-siting the Growler enables efficient maintenance and logistics support of Growler-unique aircraft components.

Relocating Growlers 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. Furthermore, moving all Growler squadrons to another installation would only move the potential environmental impacts from one community to another community.

Others have suggested re-locating the additional aircraft to different installations. Growler aircraft are unique platforms and cannot be based away from the larger Growler community without a significant duplication of Growler-specific infrastructure that currently exists only at Ault Field, as detailed above. Split-siting Growler squadrons at different locations would require duplication of manpower, training, and logistics resources that currently exist at Ault Field and would thereby increase annual recurring costs (i.e., manpower and supply) and require major infrastructure investments (i.e., construction and procurement of equipment and Growler-specific pilot-training simulators). Additionally, split-siting introduces substantial inefficiencies in community management and training without any corresponding operational benefit. 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.

Comments have specifically suggested that additional aircraft be re-located to the following Navy installations:

• NAS Lemoore (Kings County and Fresno County, California)

NAS Lemoore is the Navy's west coast master strike-fighter base. By 2020, it will be home to more than 250 FA-18E/F Super Hornet and F-35C Lightning II strike-fighter aircraft and more

than 8,700 personnel. As such, NAS Lemoore is already operating above its designed physical capacity and would require extensive construction of hangars, training facilities, and housing to support additional aircraft, equipment, and personnel. The large concentration of resident strike-fighter aircraft place a heavy demand on NAS Lemoore's local airspace and training ranges, leaving little availability to accommodate additional squadrons. Unlike NAS Whidbey Island, NAS Lemoore does not have an OLF that can be used to disperse FCLPs. So, relocating Growler squadrons to NAS Lemoore would further tax an already limited capacity to prepare pilots for carrier operations. Because strike-fighter squadrons at NAS Lemoore do not employ electronic attack, the Navy does not have agreements with the Federal Communications Commission and Federal Aviation Administration activities necessary to support live electronic training as it does in the Pacific Northwest. Given the proximity of Lemoore's training ranges to dense air traffic corridors and population centers, obtaining access to critical frequency bands in the Southern California area is highly unlikely. Finally, NAS Lemoore is classified as a Clean Air Act nonattainment area, and adding additional aircraft, along with major new construction, would aggravate that condition and complicate the state's efforts to come into compliance with air quality standards.

• Naval Air Facility El Centro (Imperial County, California)

Naval Air Facility (NAF) El Centro is an austere training facility with a small permanent party presence of approximately 700 military and civilian personnel. It is not a home base for Fleet or training squadrons and, therefore, is not resourced to provide the necessary personnel, logistics and training support functions and facilities to support home basing of Growler squadrons and a large permanent party presence. It is a Fleet training complex resourced to provide temporary training detachment support with limited capability to provide transient support functions. Home basing aircraft at NAF El Centro would fundamentally change the nature of the facility and would prove cost prohibitive as demonstrated by the analysis conducted in the U.S. Navy F-35C West Coast Home Basing EIS in 2014. As a unique Fleet training complex, NAF El Centro is an indispensable asset for rotary-wing and undergraduate training squadrons as well as the Navy Flight Demonstration Squadron all of whom depend on El Centro's current capabilities and continued availability. Home basing Growler squadrons at NAF El Centro would consume airfield facilities and services, reducing availability of the El Centro training complex to its current users, and disrupting proven training practices. Finally, NAF El Centro is also classified as a Clean Air Act nonattainment area, and adding additional aircraft, along with major new construction, would aggravate that condition and complicate the state's efforts to come into compliance with air quality standards.

• Naval Air Weapons Station China Lake (Kern, San Bernardino, and Inyo Counties, California) Naval Air Weapons Station (NAWS) China Lake is 2,283 feet above sea level, which exceeds the Navy siting criterion of 1,000 feet or less elevation necessary to simulate carrier operations at sea. NAWS China Lake is a Research, Development, Test, and Evaluation (RDT&E) installation with resources to provide support to a small population of RDT&E personnel. It does not have the housing, training, and maintenance infrastructure to home base operational squadrons. In addition to the limited infrastructure at NAWS China Lake, the Electronic Attack mission would interfere with the installation's primary mission. Specifically, because of the time-criticality and expense of RDT&E operations, such operations would have scheduling priority over Fleet

Growler squadrons if based at NAWS China Lake, thus limiting availability of local training ranges to support Growler squadron training and readiness.

• NAS Oceana (Virginia Beach, Virginia)

NAS Oceana is the Navy's east coast strike-fighter master jet base, supporting more than 250 FA-18C Hornet and FA-18E/F Super Hornet aircraft. There is no excess physical capacity of hangars and aircraft parking ramps to accommodate additional aircraft. In addition, Navy Auxiliary Landing Field Fentress, the primary FCLP facility for Oceana-based squadrons, has a well-documented schedule capacity shortfall that would be exacerbated by additional squadrons. As is the case with NAS Lemoore, the strike-fighter squadrons at NAS Oceana do not employ electronic attack and therefore have not established agreements with local agencies to transmit on certain critical frequencies in the local training areas.

• Marine Corps Air Station Cherry Point (Craven County, North Carolina)

Marine Corps Air Station (MCAS) Cherry Point has been suggested as potential siting location due to the presence of the Marine Corps' Electronic Attack community. However, that community operates the EA-6B Prowler aircraft, which has very little commonality with the Growler and therefore would not offer synergies in maintenance or training. Even if co-location with the Marine Corps Electronic Attack community offered benefits, they would not be long-lived as the Marine Corps will retire the EA-6B and its electronic attack mission by the end of 2019. Any surplus infrastructure capacity that would have existed at MCAS Cherry Point due to the phase out of the Marine Corps' existing Electronic Attack community would be subsumed by the imminent home basing of U.S. Marine Corps F-35B Lightning II aircraft. Finally, MCAS Cherry Point does not have an OLF for fixed-wing aircraft, which would be critical for FCLP, and one is not located within a reasonable distance except for NALF Fentress, which is, as noted above, already taxed to meet current FCLP demands from NAS Oceana. Constructing a new OLF would result in new, significantly adverse impacts to the surrounding environment.

In summation, other than Ault Field, no other location in the contiguous U.S. has the facilities and functions to support the Electronic Attack mission or offers the operational benefits associated with single-siting the community.

2.4.3 Conducting FCLP Elsewhere

The Navy considered but eliminated the following options for conducting FCLP elsewhere:

· 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.

Regional civilian airfields

While private or municipal airfields are in the local area, civilian airfields are generally not reasonable choices for tactical jet aircraft FCLP for a variety of reasons. Civilian airfields do not have the equipment necessary to support FCLP, and the cost of adding these improvements would be excessive. All civilian air traffic would need to be suspended during FCLP because slower civilian aircraft mixing with tactical jet aircraft in the traffic pattern would pose an unacceptable safety risk. Exclusive use of an airfield for FCLPs could violate the Federal Aviation Administration Grant Assurance program requirement that civilian airfield users have equal right to the airfield. Nonetheless, in order to fully explore whether any civilian airfields could reasonably be considered as alternative FCLP locations for Ault Field-based Growler aircraft, civilian airfields up to 75 nm from Ault Field were identified and reviewed for suitability. This review determined that no civilian airfields appear suitable for FCLP (Appendix H, Civilian Airfield Analysis).

• Detachment training out of the region

Significantly increasing FCLP detachments is not a reasonable alternative. It is not sustainable operationally as a long-term solution because it takes aircraft away from the home base for other aircrew training opportunities, reduces aircraft service life due to extensive transit, increases time personnel spend away from their home base during critical months leading to a deployment, and requires not just aircrew and aircraft but also aircraft maintenance personnel, making them unavailable at Ault Field during the duration of the detachment. Detachment training increases operational and training costs not currently funded. The negative impact on operational readiness resulting from detachment training is the reason why an OLF is collocated with each Navy installation that has carrier-based aircraft, including NAS Oceana and Ault Field.⁴

Construct a new OLF

Constructing a new OLF is highly speculative and would require years, if not decades, to accomplish. There is no statutory authority (i.e., requiring an Act of Congress) to purchase the land and easements necessary to construct a multi-million-dollar airfield, and it is unclear how to justify funding when OLF Coupeville fully satisfies the Navy's requirements. Although the Navy recognizes that NEPA is intended to be, in part, a forcing function to help spur analysis of alternatives that may be outside the jurisdiction of the agency, or which may require additional Congressional appropriations, analyzing an alternative that would result in the construction of an entirely new OLF goes against the standards established by the CEQ's regulations regarding the purpose of analyzing alternatives. CEQ regulation Section 1502.1 notes that reasonable alternatives are those that would "avoid or minimize adverse impacts or enhance the quality of the human environment." Thus, the purpose of analyzing alternatives is not just to analyze different ways of implementing a proposed action; rather, the alternatives are intended to show different ways of mitigating environmental impact. Constructing a new OLF runs counter to this goal. 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

NAS Lemoore has carrier-based aircraft but does not have a collocated OLF because it has an offset parallel runway that allows for FCLPs to be conducted simultaneously while other airfield operations occur on the parallel runway.

location. Moreover, any potential reduction of noise impacts near OLF Coupeville could be offset by an increase in noise at a new OLF, depending on where it would be sited relative to the old OLF. In addition, it would migrate noise impacts to another community. Considering that the population densities in the rural areas of the Pacific Northwest near NAS Whidbey Island that would be suitable for an OLF are similar to those near OLF Coupeville, and more often higher population densities, there is likely to be no net environmental gain regarding noise impacts with any move from OLF Coupeville. Considering the nature of the geography in the Pacific Northwest, there is very limited land suitable for an OLF close enough to NAS Whidbey Island and not already heavily developed or with large resident communities. 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. It is also speculative because it is unclear whether a suitable location exists for a new OLF. No commenter has suggested what location would be suitable for an OLF that would provide for lessened environmental impacts to the community. In reviewing possible locations, the Navy notes that locations to the west of Ault Field are not readily available due to the proximity of the Olympic National Park and due to concerns with moving an OLF closer to this park and wilderness area; locations to the south and east have higher civilian population densities than around OLF Coupeville; and locations to the north would not be feasible due to the presence of the San Juan Islands National Monument and the Canadian border.

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.

• Exclusive use of simulators

There is simply no substitute for an aviator to conduct training in a real aircraft, in real airspace, for perfecting FCLP at an on-shore airfield before attempting to land on an aircraft carrier. The Navy has learned how to best prepare pilots for the very demanding task of landing on an aircraft carrier and believes it has achieved the right combination of simulated and live training. The Navy uses flight simulation extensively for training. While simulator training is extremely valuable, it cannot replace the feel and physiological conditions experienced through live FCLP and cannot be used exclusively to certify pilots for landing on an aircraft carrier. Just as one wouldn't expect a pilot to fly a commercial airliner solo after learning how to fly only on simulators, it would be too dangerous to allow Naval aviators to perform the most dangerous task in military aviation, landing on an aircraft carrier, after using simulators only for their training.

2.5 Summary of Alternatives Considered

Table 2.5-1 provides an overview of the No Action Alternative and the three action alternatives considered in this EIS.

Table 2.5-1 Summary of Alternatives Considered in the Environmental Impact Statement for EA-18G Growler Airfield Operations at the Naval Air Station Whidbey Island Complex

	Aircraft Changes	Personnel Chang	ges	Distribution (Percent of Field vs. OL Coupeville)	FCLP at Ault	
Alternative	New Squadrons/ Increase in Aircraft	Total Operations at NAS Whidbey Island Complex	Net Change in Number of Growler Personnel and Dependents	Scenario A	Scenario B	Scenario C
No Action Alternative (No new Growler Aircraft)	No new Growler aircraft. Existing aircraft: 9 carrier squadrons (45 aircraft) 3 Expeditionary squadrons (15 aircraft) 1 Reserve Squadron (5 aircraft) FRS (17 aircraft)	88,600	No new personnel (existing personnel 4,104, existing dependents 5,627)	N/A	N/A	N/A
Action Alternative 1 (+35 Additional Growler Aircraft)	3 new aircraft to each existing carrier squadron 8 new training aircraft for FRS	Ault Field	+371 personnel +509 dependents	20/80	50/50	80/20

Table 2.5-1 Summary of Alternatives Considered in the Environmental Impact Statement for EA-18G Growler Airfield Operations at the Naval Air Station Whidbey Island Complex

	Aircraft Changes		Personnel Chan	ges	Distribution (Percent of Field vs. OLI Coupeville)	FCLP at Ault
Alternative	New Squadrons/ Increase in Aircraft	Total Operations at NAS Whidbey Island Complex	Net Change in Number of Growler Personnel and Dependents	Scenario A	Scenario B	Scenario C
Action Alternative 2 (+36 Additional Growler Aircraft)	 2 new expeditionary squadrons (10 new aircraft) 2 additional aircraft to each existing carrier squadron (18 new aircraft) 8 new training aircraft for FRS 	Ault Field Scenario A: 95,100 Scenario B: 107,700 Scenario C: 120,300 OLF Coupeville Scenario A: 34,000 Scenario B: 21,400 Scenario C: 8,800 Total Scenario A: 129,100 Scenario B: 129,100 Scenario C: 129,100	+664 personnel +910 dependents	20/80	50/50	80/20

Table 2.5-1 Summary of Alternatives Considered in the Environmental Impact Statement for EA-18G Growler Airfield Operations at the Naval Air Station Whidbey Island Complex

	Aircraft Changes		Personnel Chan	ges	Distribution (Percent of Field vs. OLI Coupeville)	FCLP at Ault
Alternative	New Squadrons/ Increase in Aircraft	Total Operations at NAS Whidbey Island Complex	Net Change in Number of Growler Personnel and Dependents	Scenario A	Scenario B	Scenario C
Action Alternative 3 (+36 Additional Growler Aircraft)	 3 additional aircraft to each existing expeditionary squadrons (9 new aircraft) 2 additional aircraft to each existing carrier squadron (18 new aircraft) 9 new training aircraft for FRS 	Ault Field Scenario A: 94,900 Scenario B: 107,400 Scenario C: 120,000 OLF Coupeville Scenario A: 33,900 Scenario B: 21,300 Scenario C: 8,700 Total Scenario A: 128,800 Scenario B: 128,700 Scenario C: 128,700	+377 personnel +894 dependents	20/80	50/50	80/20

Key:

FCLP = field carrier landing practice FRS = Fleet Replacement Squadron

N/A = not applicable

OLF = Outlying Landing Field

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