

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 United States (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 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 13 additional 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 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.

Beginning as early as 2018, 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 because this analysis has been performed in other National Environmental Policy Act (NEPA) documents. The Navy prepares separate 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.

Throughout the NEPA process, the Navy sought to provide timely information for public transparency. Because the Draft EIS did not include a Preferred Alternative, the Navy took steps to announce the Preferred Alternative as soon as it was determined. On June 25, 2018, the Navy identified Alternative 2, Scenario A, as the Preferred Alternative ahead of the publication of the Final EIS. Alternative 2, Scenario A, provides the best training for Navy pilots and impacts the fewest number of residents living in the community. See Section 2.4 for more detail on the Preferred Alternative.

The next step in the NEPA process is a Record of Decision, which will occur no sooner than 30 days following the publication of the Final EIS. While NEPA and Council on Environmental Quality (CEQ) regulations required public comment on the Draft EIS, the regulations do not require a public comment period following the release of the Final EIS. The Navy considered all 4,335 public comments received on the Draft EIS and refined the Final EIS with updated information that improves the accuracy and thoroughness of the Final EIS analysis. Although the conclusions of the Draft EIS and Final EIS remain the same, the operational changes announced in September 2017 (i.e., the reduced number of pilots as defined by the latest information on the enhanced Electronic Attack mission and the implementation of Precision Landing Mode [PLM], also known as Maritime Augmented Guidance with Integrated Controls for Carrier Approach and Recovery Precision Enabling Technologies [MAGIC CARPET]) had an overall benefit of lessening the impacts across all alternatives and scenarios. The Final EIS provides clarifications and identifies changes that were made to the Draft EIS (see Section 1.13). The Navy response to public comment is provided in Appendix M.

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 45-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

- existing land use and public health and safety concerns

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 with required reserves.
- 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 2.3 describes alternatives that meet the purpose of and need for the Proposed Action and are analyzed in this EIS. Section 2.4 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 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
- with full implementation of PLM, also known as MAGIC CARPET, FCLP requirements are expected to be reduced, conservatively, by 20 percent

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 Growler FCLP aircraft operations at Ault Field and OLF Coupeville (under all scenarios for each alternative)
- each force structure alternative has different personnel numbers, 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.

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.

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.

Action Alternative 1

Alternative 1 would expand carrier capabilities by adding three additional aircraft and additional squadron personnel to each of the existing nine carrier squadrons and augmenting the FRS with eight additional aircraft and additional squadron personnel (a net increase of 35 aircraft). Alternative 1 would add an estimated 335 Navy personnel and 459 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 and additional squadron personnel to each of the nine existing carrier squadrons, and augmenting the FRS with eight additional aircraft and additional squadron personnel (a net increase of 36 aircraft). Alternative 2 would add an estimated 628 Navy personnel and 860 dependents to the region.

Action Alternative 3

Alternative 3 would expand expeditionary and carrier capabilities by adding three additional aircraft and additional squadron personnel to each of the three existing expeditionary squadrons, adding two additional aircraft and additional squadron personnel to each of the nine existing carrier squadrons, and augmenting the FRS with nine additional aircraft and additional squadron personnel (a net increase of 36 aircraft). Alternative 3 would add an estimated 341 Navy personnel and 467 dependents to the region.

Scenarios Analyzing FCLP Distribution

This EIS analyzes the distribution of annual Growler FCLPs between Ault Field and OLF Coupeville resulting from the three 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 aircrew train using these additional aircraft, which has differing impacts on the environment (i.e., the squadron type determines its FCLP requirement and the number of personnel stationed in the local area). 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. Likewise, the differences in force structure result in differing numbers of personnel and their families being stationed in the local community. This has different impacts on housing, social services, schools, and other socioeconomic factors between the alternatives.

In order to determine how the distribution of Growler FCLP operations may affect noise impacts at OLF Coupeville and Ault Field, this EIS evaluates the following five sub-alternatives, which are operational scenarios (analyzing varying distribution of Growler FCLP operations at Ault Field and OLF Coupeville) for each 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
- **Scenario D**
Thirty percent of all FCLPs conducted at Ault Field and 70 percent of all FCLPs conducted at OLF Coupeville
- **Scenario E**
Seventy percent of all FCLPs conducted at Ault Field and 30 percent of all FCLPs conducted at OLF Coupeville

The analysis includes the continuation and expansion of Growler operations at the NAS Whidbey Island complex, including FCLPs at Ault Field and OLF Coupeville. In addition, the analysis includes all flight operations of other aircraft at the NAS Whidbey Island complex. Total airfield operations are considered all aircraft operations that occur, and these include Touch-and-Goes, Depart and Re-enter, Ground Controlled Approaches, and FCLPs. Total airfield operations include all aircraft for Ault Field and OLF Coupeville (see Table 2.3-1). Total operations may differ between alternative and scenario due to varying training requirements and randomness inherent in modeling. In addition, the percentages depicted are used for general description of the scenarios. The proposed level of activity for each alternative and associated scenario is quantified in Table 2.3-1. The above five scenarios (A, B, C, D, and E), in combination with the alternatives described in Table 2.3-1 (Alternatives 1, 2, and 3), provide a total of 15 alternative scenarios that are fully evaluated in this EIS analysis. The Secretary of the Navy will be able to select a final alternative/scenario or combination from the range of 15 analyzed in this EIS.

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

<i>EIS Alternatives</i>	<i>Growler Force Structure Changes</i>	<i>Additional Growler Aircraft by Role</i>	<i>Total Growler Aircraft at Ault Field¹</i>	<i>Total Operations at NAS Whidbey Island Complex^{2, 3, 4, 5}</i>
No Action Alternative (No additional Growler Aircraft)	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	82	Total <ul style="list-style-type: none"> 84,700 Ault Field <ul style="list-style-type: none"> 78,200 OLF Coupeville <ul style="list-style-type: none"> 6,500
Alternative 1 (+35 additional Growler Aircraft)	<ul style="list-style-type: none"> 3 additional aircraft to each existing carrier squadron Additional training squadron aircraft 	<ul style="list-style-type: none"> 27 carrier squadron aircraft 8 training aircraft 	117	Total <ul style="list-style-type: none"> Scenario A: 112,600 Scenario B: 111,200 Scenario C: 109,800 Scenario D: 112,200 Scenario E: 110,100 Ault Field <ul style="list-style-type: none"> Scenario A: 87,300 Scenario B: 95,300 Scenario C: 103,200 Scenario D: 90,000 Scenario E: 100,400 OLF Coupeville <ul style="list-style-type: none"> Scenario A: 25,300 Scenario B: 15,900 Scenario C: 6,600 Scenario D: 22,200 Scenario E: 9,700
Alternative 2 (+36 additional Growler Aircraft)	<ul style="list-style-type: none"> 2 new expeditionary squadrons 2 additional aircraft to each existing carrier squadron Additional training squadron aircraft 	<ul style="list-style-type: none"> 10 expeditionary squadron aircraft 18 carrier squadron aircraft 8 training aircraft 	118	Total <ul style="list-style-type: none"> Scenario A: 112,100 Scenario B: 110,700 Scenario C: 109,500 Scenario D: 111,800 Scenario E: 110,000 Ault Field <ul style="list-style-type: none"> Scenario A: 88,000 Scenario B: 95,500 Scenario C: 103,200 Scenario D: 90,600 Scenario E: 100,700 OLF Coupeville <ul style="list-style-type: none"> Scenario A: 24,100 Scenario B: 15,200 Scenario C: 6,300 Scenario D: 21,200 Scenario E: 9,300

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

<i>EIS Alternatives</i>	<i>Growler Force Structure Changes</i>	<i>Additional Growler Aircraft by Role</i>	<i>Total Growler Aircraft at Ault Field¹</i>	<i>Total Operations at NAS Whidbey Island Complex^{2, 3, 4, 5}</i>
Alternative 3 (+36 additional Growler Aircraft)	<ul style="list-style-type: none"> 3 additional aircraft to each existing expeditionary squadron 2 additional aircraft to each existing carrier squadron Additional training squadron aircraft 	<ul style="list-style-type: none"> 9 expeditionary squadron aircraft 18 carrier squadron aircraft 9 training aircraft 	118	Total <ul style="list-style-type: none"> Scenario A: 111,800 Scenario B: 110,500 Scenario C: 109,200 Scenario D: 111,400 Scenario E: 109,600 Ault Field <ul style="list-style-type: none"> Scenario A: 87,700 Scenario B: 95,300 Scenario C: 102,900 Scenario D: 90,300 Scenario E: 100,300 OLF Coupeville <ul style="list-style-type: none"> Scenario A: 24,100 Scenario B: 15,200 Scenario C: 6,300 Scenario D: 21,100 Scenario E: 9,300

Notes:

- ¹ 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.
- ² Total airfield operations at NAS Whidbey Island complex are approximate for each scenario. Total airfield operations include FCLPs as well as all other operations. Detailed airfield operations tabulated by airfield and alternative/scenario are provided in Sections 3.1 and 4.1.
- ³ Total operations for each scenario combine the operations at Ault Field and OLF Coupeville for that specific scenario. Total operations may differ between alternative and scenario due to variability in training requirements and randomness inherent in modeling.
- ⁴ Since the publication of the Draft EIS, two new operational scenarios for each action alternative have been added to the analysis. In addition, several updates were applied to the noise analysis: incorporation of Precision Landing Mode, which reduced FCLP requirements by approximately 20 percent across all scenarios and led to a reduction in FCLP operations, and updating the number of pilots per squadron (reduction); see Section 1.13.
- ⁵ Total airfield operations are considered all aircraft operations that occur, and these include Touch-and-Goes, Depart and Re-enter, Ground Controlled Approaches, and FCLPs. Total airfield operations include all aircraft for Ault Field and OLF Coupeville.

Key:

- EIS = Environmental Impact Statement
- NAS = Naval Air Station
- OLF = outlying landing field

Scenarios are based on the distribution of Growler 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 but instead are used for general description of the scenarios; the distribution of FCLPs will be based on the level of activity presented in Table 2.3-2. 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 five operational scenarios at the expense of ideal training.

Several updates were applied to the noise analysis between release of the Draft EIS and the Final EIS, which include 1) updating the noise model using the latest version of NOISEMAP (Version 7.3); 2) applying refinements to certain flight profiles/aircraft operating assumptions; 3) incorporating the effects of PLM into the noise analysis; and 4) updating the number of pilots per squadron. These changes reduced the total number of operations and total number of FCLPs at the NAS Whidbey Island complex (see Section 1.13).

Table 2.3-2 Comparison of FCLPs by Alternative at the NAS Whidbey Island Complex¹

<i>Alternative²</i>	<i>Ault Field</i>	<i>OLF Coupeville</i>	<i>Total FCLPs</i>
<i>Alternative 1</i>			
Scenario A (20/80 FCLP Split)	6,100	24,900	31,000
Scenario B (50/50 FCLP Split)	15,500	15,500	31,000
Scenario C (80/20 FCLP Split)	24,900	6,200	31,100
Scenario D (30/70 FCLP Split)	9,200	21,800	31,000
Scenario E (70/30 FCLP Split)	21,700	9,300	31,000
<i>Alternative 2</i>			
Scenario A (20/80 FCLP Split)	5,900	23,700	29,600
Scenario B (50/50 FCLP Split)	14,800	14,800	29,600
Scenario C (80/20 FCLP Split)	23,700	5,900	29,600
Scenario D (30/70 FCLP Split)	8,900	20,800	29,700
Scenario E (70/30 FCLP Split)	20,800	8,900	29,700
<i>Alternative 3</i>			
Scenario A (20/80 FCLP Split)	5,900	23,700	29,600
Scenario B (50/50 FCLP Split)	14,800	14,800	29,600
Scenario C (80/20 FCLP Split)	23,700	5,900	29,600
Scenario D (30/70 FCLP Split)	8,900	20,700	29,600
Scenario E (70/30 FCLP Split)	20,700	8,900	29,600
<i>No Action Alternative</i>	11,300	6,100	17,400

Notes:

- ¹ This table includes FCLP operations only. Total airfield operations include FCLPs as well as all other operations. Detailed airfield operations tabulated by airfield and alternative/scenario are provided in Sections 3.1 and 4.1.
- ² 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 but instead are used for general description of the scenarios; the distribution of FCLPs will be based on the level of activity presented in the table above. Training requirements may require FCLPs that fall within a range of these operations.
- ³ FCLP operations may differ between alternative and scenario due to variability in training requirements and randomness inherent in modeling.

2.3.3 Description of Alternatives

2.3.3.1 Aircraft and Personnel Loading

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 alternatives would range from 335 to 628 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).

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

<i>Alternative</i>	<i>Growler Aircraft Loading</i>	<i>Total Growler Aircraft</i>	<i>Growler Personnel Loading</i>	<i>Total Growler Personnel</i>	<i>Dependents</i>
No Action Alternative	<ul style="list-style-type: none"> • 9 carrier squadrons (45 aircraft) • 3 expeditionary squadrons (15 aircraft) • 1 Reserve Squadron (5 aircraft) • 1 training squadron (17 aircraft) 	82	<ul style="list-style-type: none"> • 517 Officer • 3,587 Enlisted 	4,104	5,627
Alternative 1	<ul style="list-style-type: none"> • 9 carrier squadrons (72 aircraft) • 3 expeditionary squadrons (15 aircraft) • 1 Reserve Squadron (5 aircraft) • 1 training squadron (25 aircraft) 	117 (+35)	<ul style="list-style-type: none"> • 597 Officer • 3,842 Enlisted 	4,439 (+335)	6,086 (+459)
Alternative 2	<ul style="list-style-type: none"> • 9 carrier squadrons (63 aircraft) • 5 expeditionary squadrons (25 aircraft) • 1 Reserve Squadron (5 aircraft) • 1 training squadron (25 aircraft) 	118 (+36)	<ul style="list-style-type: none"> • 619 Officer • 4,113 Enlisted 	4,732 (+628)	6,487 (+860)
Alternative 3	<ul style="list-style-type: none"> • 9 carrier squadrons (63 aircraft) • 3 expeditionary squadrons (24 aircraft) • 1 Reserve Squadron (5 aircraft) • 1 training squadron (26 aircraft) 	118 (+36)	<ul style="list-style-type: none"> • 597 Officer • 3,848 Enlisted 	4,445 (+341)	6,094 (+467)

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. 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 29 percent to 33 percent (depending on the alternative and scenario selected) over the No Action Alternative.

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 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 parked aircraft and 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, maintenance, and emergency shelter for operational aircraft as well as general administration of squadron operations.
- **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 June 2018 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 to augment existing Growler support facilities. Throughout construction, all alternatives would require temporary hangar facilities to support squadron functions until permanent facilities are completed. Once construction is complete, all temporary facilities will be removed. All three alternatives would require repairs to an inactive taxiway 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 aircraft 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. Details include:

- Temporary hangar facilities, which would be placed over existing impervious surface, would be utilized throughout construction to support squadron functions until permanent facilities are completed. Once construction is complete, all temporary facilities will be removed.
- Repairs would be made to an inactive taxiway for aircraft parking in addition to expanded hangar space.
- A two-squadron hangar would be constructed on the flight line adjacent to Hangar 5.
- Hangar 12 would be expanded to accommodate additional training squadron aircraft and personnel.
- Operational storage Building 115 would be demolished.

Under any of the alternatives, planned land disturbance for construction activities under all alternatives would be 10.1 acres. Once constructed, facilities and parking would add up to 2.3 acres of new impervious surface at the installation. Prior to implementation of the Proposed Action, all appropriate permits and authorizations will be obtained.

L:\Buffalo\Whidbey_EIS\Maps\MXD\EIS\Figure 2.3-1 Construction under Alts 1, 2, and 3.mxd



0 0.1 Miles

SOURCE NAS Whidbey Island 2013c, 2017a; ESRI 2012; USDA 2017.

- Roadway
- ▭ Installation Area
- ▭ MILCON Projects

Figure 2.3-1
Ault Field
Planned Facility Activities under
Alternatives 1, 2, and 3
 Whidbey Island, Island County, WA

2.4 Preferred Alternative

The Navy did not identify a Preferred Alternative prior to publication of the Draft EIS in November 2016 because it was evaluating operational and environmental considerations necessary to make that determination. The Navy announced the Preferred Alternative on June 25, 2018, prior to release of the Final EIS, in order to provide timely information to the public once it had been identified.

Alternative 2, adding 36 Growler aircraft to the NAS Whidbey Island complex, has been identified as the Preferred Alternative. This alternative best meets operational demands by both establishing two new expeditionary squadrons and adding two aircraft to each squadron that operates off aircraft carriers. The number of total FCLPs is driven by the number of pilots and not by the number of aircraft. Each pilot must conduct a certain number of FCLPs prior to conducting landings on an aircraft carrier. Scenario A has been identified as the preferred scenario under Alternative 2 for FCLP distribution because it results in the least disruption of other operations at Ault Field, provides the best training for Navy pilots, and impacts the fewest number of residents living in the community. Under this scenario, 88,000 total operations would occur at Ault Field, with 24,100 at OLF Coupeville. Of these 24,100 operations at OLF Coupeville, 23,700 would be EA-18G Growler FCLPs. Since each airfield “operation” is defined as either a takeoff or landing, under this scenario, about 12,000 FCLP “passes” would occur annually at OLF Coupeville.

Both airfields will have an increase in total operations, the majority of which will be at Ault Field. Ault Field is a busy, multi-mission airfield, while OLF Coupeville is the preferred and ideal field for FCLP. OLF Coupeville has been continuously used for FCLP since the late 1960s, and its pattern best replicates the carrier landing pattern, thereby building and reinforcing the correct habit patterns and muscle memory for aviators. OLF Coupeville sits atop a 200-foot ridge surrounded by flat terrain, an isolated setting similar to that of an aircraft carrier operating on the open sea. The low level of man-made lighting around OLF Coupeville and the ability to completely darken the field also provide a setting that closely resembles at-sea conditions from the pilots’ perspective and provides the most realistic FCLP training in the Northwest Region

Unlike OLF Coupeville, Ault Field sits in a valley surrounded by higher terrain, limiting pattern options and providing a visual picture unlike conditions at sea. The City of Oak Harbor and Ault Field both have artificial lighting and visual cues not experienced by pilots at sea. Conducting FCLPs at Ault Field creates congestion that results in delays and degrades available training time in the ranges. FCLP at Ault Field often disrupts departures and arrivals of other aircraft not participating in FCLP; this disruption results in extended flight tracks and longer hours of operation, which in turn affect more residents living in the community. The interruption of other vital operations by FCLP operations at Ault Field has become increasingly problematic with the addition of three more Maritime Patrol and Reconnaissance squadrons to NAS Whidbey Island that operate the P-8A Poseidon, which is replacing the P-3C Orion.

The Preferred Alternative includes analysis of changes to Navy training that will reduce impacts to local communities. The reductions the Navy studied are based on two factors: 1) the number of pilots needing training, and 2) a reduced FCLP requirement due to PLM. Both factors decreased overall FCLP requirements from the 42,000 presented in the Draft EIS to 29,600 annually--a 30-percent reduction under the Preferred Alternative.

2.5 Alternatives Considered but Not Carried Forward for Further Analysis

The following alternatives were considered but not carried forward for detailed analysis in this EIS because they did not meet the purpose of and need for the project or were otherwise deemed unreasonable.

2.5.1 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--which were to add up to 13 and 22 additional Growler aircraft, respectively. Because these two alternatives presented during the fall of 2014 did not include all the aircraft appropriated by Congress, these two alternatives were removed from further analysis.

2.5.2 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 to meet operational readiness objectives and to help train the next generation of aircrews and maintenance personnel to support their community. The Secretary of Defense directed that the tactical Airborne Electronic Attack mission be the exclusive responsibility of the Navy, ensuring a consistent and highly specialized skill set necessary to support operations from land and from the sea. Therefore, 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 for squadron-level training, as highlighted below. 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 in order to leverage those resources to define, to assess, and to integrate the highly specialized tactical skill sets necessary to support the Airborne Electronic Attack mission. The elimination of alternatives that considered moving some or all of the Growler community to other locations remains consistent with historical Navy decisions. Any alternative that divides or splits the unique Electronic Attack community into multiple sites does not meet the purpose and need of the Proposed Action. This is because any alternative that divided or split this relatively small tactical community would reduce the efficiency and effectiveness of this highly specialized 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 co-locating operational squadrons with support functions, training ranges, and airfields, for squadron-level training.

2.5.2.1 Single Siting the Growler Community at Ault Field

2.5.2.1.1 Operational Synergy

Having a single hub for the Growler community promotes the most effective cooperation of command structure, squadrons, and schools to efficiently use personnel, aircraft, equipment, and facilities to achieve the Electronic Attack mission 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 the 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.
- **Community-wide efficiencies through daily interactions.** Efficiencies are realized through shared maintenance and logistics efforts, flight line service support, and sharing aircraft and support equipment when necessary. The concentration of Growler squadrons and schools facilitates efficient reassignment of resources between squadrons when necessary.
- **Effective knowledge transfer within the Growler community.** Success in the Growler community is assisted by the concentration in one place of Growler squadrons and schools and the effective transfer of knowledge through more effective communication, better understanding of training concepts, and more collaboration on innovative strategies. 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. New members to the Growler community learn from personnel already residing in the community. This insures basic and advanced skill sets are learned, refined and assessed in order to help train the next generation of aircrews and maintenance personnel using the best practices and maintaining the highest standards within the community.
- **Personnel efficiencies.** Once personnel complete their 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 avoids the costs associated with "permanent change of station" moves. The moving costs of personnel and their family members represent a significant 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 and their family members and facilitates operational deployment schedules by eliminating downtime associated with personnel relocation moves.

2.5.2.1.2 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 these MTRs to support Growler training, including 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 45 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 Systems 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 (FAA) 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.

2.5.2.1.3 Efficient Use of Existing Infrastructure

With the exception of one forward deployed carrier squadron to Japan, Ault Field is the single location for 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 flight simulators**
The Navy currently has six Growler flight simulators, and all of them are located at Ault Field.

Flight 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 construction 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.

2.5.2.2 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 some of the 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 unreasonable 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). 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:

2.5.2.2.1 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. Therefore, 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 FAA 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.

2.5.2.2.2 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. As demonstrated by the analysis conducted in the U.S. Navy F-35C West Coast Home Basing EIS in 2014, home basing aircraft at NAF El Centro would fundamentally change the nature of the facility and could cost over \$800 million, which is cost prohibitive. Such an undertaking would require the continued resolve of Congress to support special appropriations and authorizations to replace facilities and training ranges that already exist at NAS Whidbey Island complex and within the Pacific Northwest. 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 and uses of training ranges. 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.

2.5.2.2.3 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.

2.5.2.2.4 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.

2.5.2.2.5 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 (approximately 20 legacy EA-6B aircraft) would be subsumed by the imminent home basing of eight squadrons of U.S. Marine Corps F-35B Lightning II aircraft (128 aircraft) to replace 68 AV-88 Harrier aircraft at MCAS Cherry Point. 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, significant impacts to the surrounding environment.

In summation, other than Ault Field, no other Navy 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.

2.5.3 Conducting FCLP Elsewhere

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

2.5.3.1 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. In addition, many of these regional military airfields are multi-mission bases, and conducting FCLPs at these bases would present significant disruptions to their operations.

2.5.3.2 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 FAA 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. The Civilian Airfield Analysis sets the maximum desired

distance from Ault Field to the FCLP airfield at 50 nm in order to allow transit, a full set of FCLP landings, and return with acceptable fuel reserves without refueling. The study considered airfields out to 75 nm to ensure a suitable field outside of the Navy's desired distance was not missed in the analysis. The study presents a matrix listing all public-use civilian airfields within 75 nm of Ault Field and compares them against various criteria based on Navy policy, such as having a maximum field elevation of 1,000 ft above MSL and being within 17 nm of a runway with arresting gear in the event of emergencies. Other criteria developed for the screening include the number of current annual operations at the civilian airfield, runway length, and alterations to standard landing patterns. A full explanation is provided in Appendix G, Civilian Airfield Analysis.

2.5.3.3 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. Significantly increasing detachments also increases operational and training costs for squadron and unit training that is 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.⁷

2.5.3.4 Construct a New OLF

Constructing a new OLF is highly speculative and would require years, if not decades, to accomplish. Such an undertaking would require the continued resolve of Congress to support special appropriations and authorizations to purchase the land and easements necessary to construct the airfield. It is difficult to justify construction of a new OLF when OLF Coupeville fully satisfies the Navy's requirement and is already located in an area that meets OLF siting criteria, including low ambient lighting and low population density. Construction of a new OLF would be prohibitively expensive. Although exact cost estimates are not available, the Navy analyzed construction of an OLF on the east coast and estimated in 2012 the construction would cost in the range of \$300 million to \$500 million. 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 of mitigating environmental impacts because it would require, at a minimum, a change in land ownership and land use; loss of natural habitat or the loss of

⁷ 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.

production of forest lands and agricultural lands; ground disturbance and earthwork necessary to contour the land in preparation for construction; and the construction of runway pavements, runway lighting, utility runs, and stormwater conveyance features. Although moving FCLPs away from OLF Coupeville to a new OLF may reduce noise impacts and air quality to the community immediately surrounding OLF Coupeville, it would result in significantly more adverse impacts to the environment to support new construction of an OLF and airfield operations in another location. Moreover, any potential reduction of noise and air quality 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. This could result in only shifting noise and air quality impacts from one community 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 construction of 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 could 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 to support airfield operations and to limit incompatible development. This could also adversely affect the socioeconomic resources of the receiving locality that would lose a tax base once that land transfers to federal ownership. The amount of additional new construction could result in more adverse environmental impacts than the continued 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 those around OLF Coupeville, and, additionally, the land rises significantly to the east very quickly after the coastline. Locations to the north would not be feasible due to the presence of the San Juan Islands National Monument and the Canadian border.

2.5.3.5 Anchor an Aircraft Carrier off the Coast

Landing on an aircraft carrier, especially at night, is perhaps the most hazardous aviation task. FCLP is conducted by pilots during their initial Growler training syllabus and by more experienced pilots renewing their training to demonstrate proficiency and to qualify to perform carrier landings. FCLP is conducted at land-based 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 needs to be conducted at a land-based facility such that FCLP approaches can be performed and evaluated by Landing Signal Officers to ensure proficiency under both daytime and nighttime conditions before exposing aircrew to the dangers of at-sea operations. Using an anchored aircraft carrier would inappropriately replace the stepped progression of FCLP to gain proficiency under more controlled, land-based conditions. Furthermore, an anchored aircraft carrier would create a navigation hazard to commercial shipping and recreational boating and would still be subject to weather, tides, swells and other wave energy associated with various sea state conditions that could affect its availability to safely conduct FCLP. Finally, per Navy regulations to ensure the safety of the aircrew, pilots may not land on an aircraft carrier at sea without completing FCLP on land.

2.5.3.6 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. In addition, 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 hazardous 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.

2.6 Summary of Alternatives Considered

Table 2.6-1 provides an overview of the No Action Alternative, three action alternatives, and five scenarios under each action alternative considered in this EIS.

Table 2.6-1 Summary of Alternatives Considered in the Environmental Impact Statement for EA-18G Growler Airfield Operations at the Naval Air Station Whidbey Island Complex

Alternative	Aircraft Changes		Personnel Changes	Distribution of Flights
	New Squadrons/ Increase in Aircraft	Total Operations at NAS Whidbey Island Complex^{1, 2, 3}	Net Change in Number of Growler Personnel and Dependents	Percent of FCLP at Ault Field vs. OLF Coupeville
No Action Alternative (No new Growler Aircraft)	No new Growler aircraft. Existing aircraft: <ul style="list-style-type: none"> • 9 carrier squadrons (45 aircraft) • 3 Expeditionary squadrons (15 aircraft) • 1 Reserve Squadron (5 aircraft) • FRS (17 aircraft) 	Total <ul style="list-style-type: none"> • 84,700 Ault Field <ul style="list-style-type: none"> • 78,200 OLF Coupeville <ul style="list-style-type: none"> • 6,500 	No new personnel (existing personnel 4,104, existing dependents 5,627)	N/A
Alternative 1 (+35 Additional Growler Aircraft)	<ul style="list-style-type: none"> • 3 new aircraft to each existing carrier squadron • 8 new training aircraft for FRS 	Total <ul style="list-style-type: none"> • Scenario A: 112,600 • Scenario B: 111,200 • Scenario C: 109,800 • Scenario D: 112,200 • Scenario E: 110,100 Ault Field <ul style="list-style-type: none"> • Scenario A: 87,300 • Scenario B: 95,300 • Scenario C: 103,200 • Scenario D: 90,000 • Scenario E: 100,400 OLF Coupeville <ul style="list-style-type: none"> • Scenario A: 25,300 • Scenario B: 15,900 • Scenario C: 6,600 • Scenario D: 22,200 • Scenario E: 9,700 	+335 personnel +459 dependents	Scenario A: 20/80 Scenario B: 50/50 Scenario C: 80/20 Scenario D: 30/70 Scenario E: 70/30

Table 2.6-1 Summary of Alternatives Considered in the Environmental Impact Statement for EA-18G Growler Airfield Operations at the Naval Air Station Whidbey Island Complex

<i>Alternative</i>	<i>Aircraft Changes</i>		<i>Personnel Changes</i>	<i>Distribution of Flights</i>
	<i>New Squadrons/ Increase in Aircraft</i>	<i>Total Operations at NAS Whidbey Island Complex^{1, 2, 3}</i>	<i>Net Change in Number of Growler Personnel and Dependents</i>	<i>Percent of FCLP at Ault Field vs. OLF Coupeville</i>
Alternative 2 (+36 Additional Growler Aircraft)	<ul style="list-style-type: none"> • 2 new expeditionary squadrons (10 new aircraft) • 2 additional aircraft to each existing carrier squadron (18 new aircraft) • 8 new training aircraft for FRS 	Total <ul style="list-style-type: none"> • Scenario A: 112,100 • Scenario B: 110,700 • Scenario C: 109,500 • Scenario D: 111,800 • Scenario E: 110,000 Ault Field <ul style="list-style-type: none"> • Scenario A: 88,000 • Scenario B: 95,500 • Scenario C: 103,200 • Scenario D: 90,600 • Scenario E: 100,700 OLF Coupeville <ul style="list-style-type: none"> • Scenario A: 24,100 • Scenario B: 15,200 • Scenario C: 6,300 • Scenario D: 21,200 • Scenario E: 9,300 	+628 personnel +860 dependents	Scenario A: 20/80 Scenario B: 50/50 Scenario C: 80/20 Scenario D: 30/70 Scenario E: 70/30
Alternative 3 (+36 Additional Growler Aircraft)	<ul style="list-style-type: none"> • 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 	Total <ul style="list-style-type: none"> • Scenario A: 111,800 • Scenario B: 110,500 • Scenario C: 109,200 • Scenario D: 111,400 • Scenario E: 109,600 Ault Field <ul style="list-style-type: none"> • Scenario A: 87,700 • Scenario B: 95,300 • Scenario C: 102,900 • Scenario D: 90,300 • Scenario E: 100,300 OLF Coupeville <ul style="list-style-type: none"> • Scenario A: 24,100 • Scenario B: 15,200 • Scenario C: 6,300 • Scenario D: 21,100 • Scenario E: 9,300 	+341 personnel +467 dependents	Scenario A: 20/80 Scenario B: 50/50 Scenario C: 80/20 Scenario D: 30/70 Scenario E: 70/30

Table 2.6-1 Summary of Alternatives Considered in the Environmental Impact Statement for EA-18G Growler Airfield Operations at the Naval Air Station Whidbey Island Complex

Alternative	Aircraft Changes		Personnel Changes	Distribution of Flights
	New Squadrons/ Increase in Aircraft	Total Operations at NAS Whidbey Island Complex^{1, 2, 3}	Net Change in Number of Growler Personnel and Dependents	Percent of FCLP at Ault Field vs. OLF Coupeville

Notes:

- ¹ Since the publication of the Draft EIS, two new operational scenarios for each action alternative have been added to the analysis. In addition, several updates were applied to the noise analysis that included incorporation of Precision Landing Mode, which reduced FCLP requirements by approximately 20 percent across all scenarios and led to a reduction in FCLP operations, and updating the number of pilots per squadron (reduction); see Section 1.13.
- ² Total airfield operations are considered all aircraft operations that occur, and these include Touch-and-Goes, Depart and Re-enter, Ground Controlled Approaches, and FCLPs. Total airfield operations include all aircraft for Ault Field and OLF Coupeville.
- ³ Total operations may differ between alternative and scenario due to variability in training requirements and randomness inherent in modeling.

Key:

- FCLP = field carrier landing practice
- FRS = Fleet Replacement Squadron
- N/A = not applicable
- OLF = Outlying Landing Field

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