

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

**ADOPTION OF FINAL ENVIRONMENTAL IMPACT STATEMENT AND  
RECORD OF DECISION FOR  
MILITARY READINESS ACTIVITIES AT NAVAL WEAPONS SYSTEMS  
TRAINING FACILITY BOARDMAN, OR**

**1.0 INTRODUCTION**

This document serves as the Federal Aviation Administration's (FAA) Adoption, and Record of Decision of the Final Environmental Impact Statement of the United States Navy's Fleet Forces Command (hereinafter referred to as the Navy), "*Military Readiness Activities at Naval Weapons Systems Training Facility, Boardman, Oregon* (hereinafter referred to as the FEIS). In December, the Navy prepared and released the 2015 FEIS regarding military readiness activities at the Naval Weapons Systems Training Facility Boardman, OR. On March 31, 2016, the Navy issued their ROD. The Navy prepared its FEIS and ROD in compliance with obligations under the National Environmental Policy Act and Navy-specific environmental regulations.

Pursuant to section 102(C) of the National Environmental Policy Act (NEPA) of 1969, and the Council on Environmental Quality (CEQ) regulations (40 CFR parts 1500-1508), the FAA announces its decision to adopt the United States Navy's FEIS for the purpose of establishing the Special Use Airspace.

**2.0 BACKGROUND**

As the lead agency, the United States Navy published the FEIS in accordance with the National Environmental Policy Act (NEPA). Additionally, in accordance with the Memorandum of Understanding (MOU) between the FAA and Department of Defense (DoD), "Concerning Environmental Review of Special Use Airspace (SUA) Actions", dated October 4, 2005, the FAA agreed to be a Cooperating Agency for this project. The National Guard Bureau (NGB) is also a Cooperating Agency. The Navy Commander, U.S Pacific Fleet signed a Memorandum of Agreement with the NGB and the Oregon National Guard (ORNG) to establish the lead and the cooperating agency relationship. The ORNG is the NGB's executing agent for the Memorandum of Agreement.

The purpose of the Proposed Action is to achieve and maintain military readiness by analyzing the military training activities by using the Naval Weapons Systems Training (NWSTF) Boardman property within the existing overlying Military Operations Area (MOA)<sup>1</sup> and the Restricted Airspace, which would include a new MOA to support the

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<sup>1</sup> A MOA is an airspace established outside Class A airspace (i.e., below 18,000 feet above mean sea level) to separate or segregate certain nonhazardous military activities from instrument flight rules ("IFR") air traffic and to identify for visual flight rule ("VFR") air traffic where these activities are conducted. 14 C.F.R. § 1.1. MOAs are a type of "non-rulemaking" Special Use Airspace ("SUA"). See FAA Order 7400.2K, paragraphs 21-1-3 (definition and types of SUA) and 21-1-4 (identifying rulemaking and non-rulemaking categories of SUA).

Boardman's low-level aviation training activities. This action is needed to provide critical increases in training activities and development of necessary ranges, range facilities, and range infrastructure selectively focused to achieve and maintain a state of military readiness commensurate with Navy and NGB national defense missions. 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 Naval Air Station (NAS) Whidbey Island-based student and fleet aircrew and ORNG units. In addition, the NWSTF Boardman and its associated airspace are also used for the following:

- Training (including Unmanned Aircraft System [UAS] training) by ORNG units located throughout the state of Oregon
- Support occasional training requirements of other DoD units and the SUA is used by DoD offices to conduct UAS testing and training

Accordingly, the strategic vision for NWSTF Boardman is to support naval and joint operational readiness by providing a realistic, live-training environment with the capability and capacity to support the Services' current, emerging, and future training requirements and UAS testing requirements.

NWSTF Boardman plays a vital role in the execution of the military readiness mandate. This training area is the Pacific Northwest's only venue for Basic phase/Unit-level air-to-ground bombing practice, Low Altitude Tactical Training (LATT), and Surface to Air Counter Tactics (SACT) for naval aviation squadrons. In addition, NWSTF Boardman supports ORNG and U.S. Air Force Reserve training requirements, and UAS testing and training conducted by the DoD and ORNG. Training at NWSTF Boardman is critical to the preparation of the Services for advanced level training and pre-deployment certification.

By letter dated January 10, 2012 (included in Appendix B of the Final EIS), the Navy requested participation from the FAA as a cooperating agency (see 40 C.F.R. § 1501.6) in the preparation of an EIS for the Military Readiness Activities at NWSTF Boardman. By letter dated January 30, 2012 (also included in Appendix B of the Final EIS), the FAA, having responsibility for approving special use airspace under 49 U.S.C. section 40103(b)(3)(A), accepted the cooperating agency status.

As the lead agency, the US Navy published a Draft Environmental Impact Statement ("DEIS") for the NWSTF Boardman expansion in accordance with NEPA. A Notice of Availability for the Draft EIS was published in the Federal Register on September 7, 2012 (77 FR 55213) and notices were placed in six local newspapers (*East Oregonian*, *Tri-City Herald*, *Oregonian*, *Hermiston Herald*, *North Morrow Times*, and *Heppner Gazette-Times*), which cover Boardman, Pendleton, Hermiston, and the general northeast Oregon region as well as the major metropolitan center of Portland, Oregon announcing the availability of the Draft EIS. As a cooperating agency, the FAA coordinated closely with the Navy and actively participated in the preparation of the Draft EIS, including reviewing drafts and providing extensive input.

The DEIS was available for general public and agency review, and was circulated for commenting between September 7 and November 6, 2012. An amended Notice of

Availability was published on November 9, 2012 (77 FR 67362) which extended the public comment period to December 6, 2012. A Notice of Public Meetings was published in the Federal Register on September 7, 2012 (77 FR 55195) and meetings were held, one on September 25, 2012 in Hermiston, OR, and the other on September 26, 2012 in Boardman, OR, to receive public comments on the DEIS. A total of 34 comments were received during the public comment period from September 7, 2012 through December 6, 2012, which included the 30-day comment period extension.

Once the DEIS public comment period closed, the Navy conducted a thorough and rigorous review of all the comments received on the DEIS. A detailed summary of the DEIS public participation is contained in Appendix G in the FEIS. Appendix G.3, DEIS Public Comments and Responses, contains copies of public and agency comments received during the DEIS review process and responses to those comments.

The potential environmental impacts of the alternatives are fully analyzed in the US Navy's FEIS. The EPA published its Notice of Availability of the FEIS in the Federal Register on December 18, 2015 (80 FR 79041). The FEIS public review and wait period ended on January 19, 2016.

The Navy signed the ROD on March 31, 2016 for Military Readiness Activities at NWSTF Boardman, Oregon. The ROD documents the Navy's decision to implement the preferred alternative identified in the FEIS as Alternative 2. The decision was based on relevant factors discussed in the EIS, including technical considerations, public review and Tribal and agency input. The Notice of Availability for the ROD was published in the Federal Register on April 8, 2016 (81 FR 20627).

During the planning process for these SUA actions, the FAA conducted an aeronautical analysis to determine any aeronautical impact that might occur as a result of the publication and charting of the MOA proposal. The proposal was circularized by the Western Service Center as FAA Aeronautical Study Number 14-ANM-4NR, and was issued on July 18, 2014 with the comment period expiring on August 31, 2014. One comment expressing support of the proposal was received during this process. The environmental review process by the FAA was also conducted in tandem with the airspace analysis to have a consistency in the proposal and environmental impacts over the proposed areas.

After the conclusion of the Aeronautical Study comment period, the FAA changed the coordinates of the airspace action. The Boardman MOA was revised to incorporate the proposed expansion that was circularized to the public consistent with the intent of the proposal stated in the circular and Aeronautical Study recommendation. The result is the change amends the existing Boardman MOA's description instead of creating a separate MOA for the expansion area. One coordinate in the Boardman Low MOA was changed to more accurately reflect the airspace action. The revised legal descriptions do not change the special use airspace request or the analysis done in the FEIS and the Aeronautical Study. The MOAs legal description revision will result in the Boardman MOA (amended) and the new Boardman Low MOA. The modification to the legal description did not change the area of analysis; therefore, the environmental and aeronautical analyses are still valid. Because this is not substantial change and does not reflect significant new

circumstance or information relevant to environmental concerns, a supplement to the final EIS is not required.

### **3.0 PROPOSED FEDERAL ACTION**

The Proposed Action involves construction and operation of new range facilities and changes in existing training and testing activities, the creation of a Boardman Low MOA (500 feet Above Ground Level [AGL] up to but not including 4,000 feet MSL) and expansion of the current Boardman MOA to the Northeast of the current Boardman MOA (4,000 MSL up to but not including 18,000 MSL). See Figure 2-5 of the FEIS. The Proposed Action would result in enhancements to range facilities and range operations as well as increases in training that are necessary to ensure NWSTF Boardman supports military training and readiness objectives.

The Navy has proposed to increase the types of training activities and the number of training events conducted at NWSTF Boardman, accommodate force structure changes, and provide enhancements to training facilities and operations at NWSTF Boardman. Low-altitude flight tracks would be oriented along a northeast axis to facilitate the use of these additional MOA, avoiding existing wind turbines on the far eastern end of R-5701C.

The proposed FAA action for this ROD is solely the amendment of the Boardman MOA (4,000 MSL up to but not including 18,000 MSL) and the establishment of the Boardman Low MOA in the northeast area of Boardman airspace (500 feet Above Ground Level [AGL] up to but not including 4,000 feet MSL).

The proposed FAA action: MOAs and proposed times of use are described below:

#### **Boardman Low MOA:**

Boundaries: Beginning at latitude 45° 50' 04"N, longitude 119° 37' 27"W;  
to latitude 45° 51' 57"N, longitude 119° 30' 28"W;  
to latitude 45° 52' 04"N, longitude 119° 22' 23"W;  
to latitude 45° 47' 26"N, longitude 119° 22' 28"W;  
to latitude 45° 46' 32"N, longitude 119° 31' 37"W;  
to latitude 45° 46' 12"N, longitude 119° 35' 02"W;  
to latitude 45° 47' 54"N, longitude 119° 37' 33"W;  
to the point of beginning and excluding that airspace within the Restricted Areas R-5701 and R-5706 when active.

Altitudes: 500 feet AGL up to but not including 4,000 feet Mean Sea Level (MSL)

Times of Use: 0730-2359 Monday – Friday and other times by Notice to Airmen (NOTAM) 6 hours in advance

Controlling Agency: FAA, Seattle Air Route Traffic Control Center (ARTCC)

Using Agency: Navy, Commanding Officer (CO), Naval Air Station (NAS) Whidbey Island, Oak Harbor, WA

**Boardman MOA (Amended):**

Beginning at lat. 45°52'59"N, long. 119°31'04"W;  
to latitude 45° 51' 47"N, longitude 119° 31' 04"W;  
to latitude 45° 51' 57"N, longitude 119° 30' 28"W;  
to latitude 45° 52' 04"N, longitude 119° 22' 23"W;  
to latitude 45° 46' 59"N, longitude 119° 22' 29"W;  
to latitude 45° 45' 09"N, longitude 119° 22' 34"W;  
to latitude 45° 43' 29"N, longitude 119° 23' 54"W;  
to latitude 45° 42' 14"N, longitude 119° 25' 04"W;  
to latitude 45° 39' 59"N, longitude 119° 27' 14"W;  
to latitude 45° 36' 09"N, longitude 119° 45' 44"W;  
to latitude 45° 38' 59"N, longitude 120° 09' 04"W;  
to latitude 45° 45' 29"N, longitude 120° 09' 04"W;  
proceed along the south shore of the Columbia River  
to latitude 45° 50' 49"N, longitude 119° 48' 44"W;  
to latitude 45° 50' 49"N, longitude 119° 45' 04"W;  
to latitude 45° 50' 19"N, longitude 119° 45' 04"W;  
to latitude 45° 50' 19"N, longitude 119° 42' 34"W;  
to latitude 45° 50' 42"N, longitude 119° 42' 33"W;  
thence along the south shore of the Columbia River  
to latitude 45° 51' 09"N, longitude 119° 40' 04"W;  
to the point of beginning, excluding that airspace within a 5 NM radius of a point located  
at latitude 45° 43' 35"N, longitude 119° 41' 07"W; and  
excluding that airspace within R-5701 and R-5706 when active.

Altitudes: 4,000 feet MSL up to but not including FL180<sup>2</sup>

Times of Use: 0730-2359 Monday – Friday and other times by NOTAM 6 hours in advance.

Controlling Agency: FAA, Seattle ARTCC

Using Agency: Navy, CO, NAS Whidbey Island, Oak Harbor, WA

**Miscellaneous:**

There will be no restrictions imposed on nonparticipating Visual Flight Rules (VFR) aircraft. Pilots flying VFR will exercise vigilance while transiting the MOA. They are strongly encouraged to contact the nearest flight service station and request the latest notice to airmen information, or contact Seattle ARTCC to determine the status of the MOAs.

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<sup>2</sup> Flight Level (FL) means a level of constant atmospheric pressure related to a reference datum of 29.92 inches of mercury. Each FL is stated in three digits that represents hundreds of feet. For example, flight level (FL) 180 represents a barometric altimeter indication of 18,000 feet.

[http://www.flightsimulation.com/data/FARS/part\\_1-1.html](http://www.flightsimulation.com/data/FARS/part_1-1.html)

#### **4.0 .PURPOSE AND NEED**

The purpose of the FAA's Proposed Action is to establish additional airspace to provide the Navy with the necessary airspace resources to realistically train DoD units to achieve and maintain military readiness. The purpose of the Navy's Proposed Action is to achieve and maintain military readiness by using a weapons training facility within acceptable travel distance for ORNG and Navy personnel that has appropriate air-to-ground ranges, terrestrial impact areas, and SUA to support and conduct current, emerging, and future training and research, development, testing, and evaluation activities, while enhancing training resources through investments on the range.

#### **5.0 ALTERNATIVES**

The FEIS analyzed the potential environmental effects of three alternatives: Alternative 1, Alternative 2, and the No-Action Alternative. For each Alternative except the No Action Alternative, the proposed airspace changes are the same.

##### **5.1 Alternative 1**

This alternative would support an increase in the types of training activities and the number of training events conducted at NWSTF Boardman, accommodate force structure changes, and provide enhancements to training facilities and operations at NWSTF Boardman. The range enhancements analyzed under Alternative 1 to meet Navy and ORNG training requirements would include the construction and operation of a Multipurpose Machine Gun Range, a Digital Multipurpose Training Range (DMPTR), an eastern Convoy Live Fire Range, a Demolition Training Range, a Range Operations Control Center and Unmanned Aircraft Systems (UAS) Training and a Maintenance Facility (housed in a single building) with small airstrip, as well as the designation of a drop zone. An additional MOA to join the existing restricted airspace would be created and would be called the Boardman Low MOA. Also, an extension would be made to the existing Boardman MOA in the northeast area of Boardman airspace (Boardman MOA, Proposed Extension). This new training airspace and airspace expansion would be 46 square nautical miles and join the current Boardman R-5701A, R-5701B and R-5701C and the existing Boardman MOA. Low-altitude flight tracks would be oriented to facilitate the use of this additional MOA, avoiding existing and planned wind turbines in the vicinity of NWSTF Boardman.

##### **5.2 Alternative 2- (Preferred Alternative)**

This alternative would include all training and range enhancement elements of Alternative 1, with the exception of construction and operation of the DMPTR. Due to the changing fiscal priorities impacting the DoD and the services, as well as changing priorities necessary to meet mission requirements, the NGB and ORNG are evaluating Alternative 2 without the proposed DMPTR. Under Alternative 2, the DMPTR would not be constructed or operated. In addition, under Alternative 2, three mortar pads would be established, a second (western) Convoy Live Fire Range and a Range Operations Control Center (separate from the UAS Training and Maintenance Facility) would also be constructed.

### **5.3 No Action Alternative**

Under the No Action Alternative, the Navy will continue training activities of the same types and at the same levels of training intensity and frequency as currently conducted at NWSTF Boardman, without a change in the nature or scope of military activities.

### **5.4 Alternatives Considered but Eliminated from Detailed Analysis – Constructing Range Enhancements and Conducting Training at Locations Other than NWSTF Boardman.**

The ORNG completed a Range Development Plan in April 2000 and a Land Use Requirements Study in 2003 to analyze if alternative range locations were available. NWSTF Boardman was identified as the only practical location in these studies, but the ORNG also accepted an offer of assistance from the Nature Conservancy to search for potential alternatives to NWSTF Boardman for the proposed training ranges. The evaluation identified 18 sites, of which six were considered potentially viable upon initial identification, but they had several significant limitations as alternatives for possible development.

The Navy also conducted an analysis of the alternative locations for current and required future training. The Navy determined that use of any of the six areas would not be a practical alternative to establishing the new MOA proposed under Alternative 2 due to lack of land, lack of capacity, inadequate space, or terrain issues. Specifically, the Navy determined that NWSTF Boardman is overlain by the only FAA-designated Restricted Area in Oregon. With respect to the alternative locations, a Restricted Area would need to be established which requires a rulemaking and acquisition process that is longer than the MOA establishment process and would not meet the ORNG and Navy's existing training needs schedule. The Navy also determined that NWSTF Boardman and associated special use airspace is the only practical alternative for required future training activities.

In summary, the Navy and ORNG used objective criteria to evaluate an exhaustive list of alternative range locations. None of the alternative range locations are feasible or meet the purpose of and need for the Proposed Action. Therefore, alternative range locations are not considered reasonable alternatives and are not carried forward for further analysis.

## **6.0 ENVIRONMENTAL IMPACTS**

The FAA has completed an independent review and evaluation of the Navy's FEIS in accordance with the CEQ regulations (see 40 C.F.R. § 1506.3(c)), FAA Order 1050.1F, and FAA Order JO 7400.2K, "*Procedures for Handling Airspace Matters*," Appendix 8. The *1050.1F Desk Reference* identifies the specific environmental impact categories the FAA considers in conducting environmental reviews under NEPA. In many cases, these categories overlap with the impact categories reflected in the Navy's FEIS.

The following summarizes analyses in the Final EIS and presents the results of the FAA's independent review and evaluation regarding the potential environmental impacts of the FAA's Proposed Action in each of the impact categories prescribed by FAA Order 1050.1F.

## **6.1 AIR QUALITY**

### **6.1.1 National Ambient Air Quality Standards (NAAQS) and Attainment Areas**

The Eastern Oregon Intrastate Air Quality Control Region 191 generally has good air quality, as indicated by the lack of nonattainment areas in the region. Morrow County and NWSTF Boardman are not located in a nonattainment or maintenance area. Currently, only three areas in Oregon are designated as nonattainment areas, all for particulate matter: Klamath Falls, Oakridge, and Eugene/Springfield. The closest maintenance area to NWSTF Boardman is La Grande, approximately 100 miles east/southeast of NWSTF Boardman (Oregon Department of Environmental Quality 2011a).

### **6.1.2 Environmental Consequences**

#### Training and Testing Activities

##### *Criteria Pollutants*

All criteria and precursor pollutant emissions would increase under the Proposed Action compared to the No Action Alternative. The increases would be attributable to the increased fixed-wing aircraft use from 847 sorties to 1,627 sorties per year, and the increased ground vehicle use associated with training activities on the new ranges. Helicopter sorties are proposed to increase from 72 to 93. The largest increase is predicted for NO<sub>x</sub>, which is an O<sub>3</sub> precursor and would increase by 236 tons per year. Given the attainment status of Air Quality Control Region 191 and the small increase in emissions relative to the Air Quality Control Region 191's baseline, there would be no significant impact on air quality as a result of the implementation of the Proposed Action. See Table 3.2-4 in FEIS.

##### *Hazardous Air Pollutants*

Hazardous air pollutant emissions would continue to be intermittent and distributed over the entire NWSTF Boardman Study Area. Their concentrations would be further reduced by atmospheric mixing and other dispersion processes. After initial mixing, it is possible that hazardous pollutants would be measurable, but they would be in very low concentrations and would not affect the air quality in the Eastern Oregon Intrastate Air Quality Control Region 191. The effects of hazardous air pollutant emissions from training and testing activities under the Proposed Action would be long-term and localized. There would be no significant impact on air quality.

### **6.1.3 Summary**

Although the Navy's Proposed Action includes ground disturbing training activities, the ground disturbing activities will all take place within the NWSTF Boundary and are not part of the new and extended MOA.

## **6.2 BIOLOGICAL RESOURCES (FISH, WILDLIFE, AND PLANTS)**

### **6.2.1 Affected Environment**

The Study Area for wildlife includes all lands within the NWSTF Boardman boundary, as well as areas that lie beneath the existing and proposed NWSTF Boardman special use

airspace (see Figure 1-2 of the FEIS). The new MOA and amendment of the existing MOA will only result in indirect noise effects to wildlife.

### *Fish*

There are no fish habitats within the study area.

### *Wildlife*

Twenty-two species of mammals, 81 species of birds, 6 species of reptiles, and 1 amphibian species are known to occur at NWSTF Boardman. Most of the 22 species of mammals in the study area are expected to occur on other undeveloped lands beneath the SUA, with species distribution and abundance being influenced by habitat. In general, areas with relatively intact native plant communities provide the highest quality habitat and areas in active crop production provide lower quality habitat. High quality habitat exists on undeveloped lands immediately west of NWSTF Boardman and on some of the lands beneath the proposed Boardman Low MOA.

One of the mammals, the Washington ground squirrel, is a candidate species (77 Federal Register [FR] 72449, December 5, 2014) for Endangered Species Act (ESA) listing. Candidate species are plants and animals for which the USFWS has sufficient information to propose them as endangered or threatened under ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities. Candidate species receive no statutory protection under ESA.

### *Vegetation/Plants*

NWSTF Boardman contains unique and remnant vegetation communities important to the region's natural heritage. Proposed activities that could directly affect vegetation are limited to the land area of NWSTF Boardman, which is not within the proposed new and expanded MOAs. Vegetation in areas adjacent to NWSTF Boardman could be indirectly affected by invasive plants and wind-transported soils. Current requirements and practices applicable to vegetation at NWSTF Boardman include:

- Vegetation is managed under the *NWSTF Boardman INRMP*. Actions focus on minimizing disturbance, controlling invasive plants and weeds, and restoring of native habitats.
- All training and facility operation actions at NWSTF Boardman are reviewed by the Naval Air Station Whidbey Island/NWSTF Boardman Natural Resources Manager for potential invasive plant and noxious weed issues.

## 6.2.2 Environmental Consequences

### *Wildlife*

The Washington Ground Squirrel and other specifically identified species addressed in the FEIS inhabit undeveloped lands beneath the proposed Boardman Low MOA. Alternative 2 would result in increased impacts to wildlife compared to the baseline. The proposed SUA could result in changes to habitat, aircraft noise, and aircraft strikes that could impact wildlife. However, the establishment of the proposed airspace will not have significant impacts on biological resources.

### Changes to Habitat

Potential impacts on wildlife habitat as a result of the proposed action are low within the proposed MOA areas. Changes to habitat have occurred within the study area over the past 18 years. Native plants, which provide wildlife habitat at NWSTF Boardman, have been affected by past wildfires in 1998, 2002, 2007, 2008, 2009, 2011, 2013, and 2015. Wildfires have led to invasive species such as cheatgrass outcompeting the native plants as the landscape recovers from wildfires, which reduces suitable habitat for wildlife.

Although most of the wildfires were caused by lightning strikes, the 2011 fire was caused by training activities. There is a small possibility of overflight training-caused wildfire within the proposed MOA due to the use of chaff and flares during overflight training activities. The likelihood of a wildfire caused by chaff and flares is low since NAS Whidbey officials are likely to suspend the use of pyrotechnics during very high and extreme fire danger days.<sup>3</sup> The most likely causes of fires from training activities are expected to occur on the DMPTR, the multipurpose machine gun range, and the eastern convoy live fire range.

### Aircraft Noise

The number of fixed-wing aircraft sorties would increase from 847 to 1,668 per year and helicopter sorties would increase from 72 to 93 per year under Alternative 2. In addition, the fixed-wing aircraft flight tracks for LATT would change to avoid existing airspace obstructions in Restricted Area 5701 (i.e., wind turbines) and use the new Boardman Low MOA (see FEIS Figure 3.4-11). Wildlife would be exposed to aircraft noise more frequently based on the number of sorties, and lands beneath the proposed Boardman Low MOA would be exposed to noise from low-altitude overflights.

Maximum aircraft noise levels would decrease under Alternative 2 compared to the No Action Alternative based on retirement of the EA-6B aircraft. As shown in Figure 3.6-8, the 130 dB  $L_{max}$  contour would not exist under Alternative 2 because  $L_{max}$  of the EA-6B is up to 9 dB greater than its replacement aircraft, the EA-18G. The 120 dB  $L_{max}$  contour for Alternative 2 would extend a few hundred feet beyond R-5701 and would be caused by the EA-18G LATT between 200 and 500 ft. above ground level. Although Alternative 2 includes LATT in portions of the proposed Boardman Low MOA, only a small portion along the edge of the proposed Boardman Low MOA is within the NA120 contour of 0–1 daily events (Figure 3.6-9) because of the higher minimum altitude of 500 ft. (152.4 m). In addition, in the Boardman Amendment and Boardman Low MOAs Day-Night Level is predominantly in the 60 to 64.9 decibel (dB) range, with the same small portion the 65 to 69.9 dB range (Figure 3.4-14). The change in noise between the baseline condition and Alternative 2 for this small portion is -3 to -1.5 dB. This noise reduction is due to the change in aircraft from the EA-6B to the EA-18G, even though the total number of sorties almost doubles under Alternative 2.

### Aircraft Strikes

Potential impacts to birds from aircraft strikes are possible. Low-altitude, fixed-wing aircraft overflights likely present the greatest risk of bird-aircraft strikes in NWSTF

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<sup>3</sup> FEIS Appendix H, Integrated Wildland Fire Management Plan, page 16, Section 3.7

Boardman airspace. High-speed flight in a low-altitude environment places aircraft in airspace that may contain birds in flight. Further, birds may flush in response to approaching aircraft noise. Helicopter training also presents bird-aircraft strike hazards, as all flights occur below 3,000 feet above ground level.

The proposed increases in aircraft and UAS sorties under Alternative 2 increases the chances of bird-aircraft strikes occurring relative to the No Action Alternative. Bird strikes may occur during any phase of flight, but are most likely during the take-off, initial climb, approach, and landing phases because of the greater numbers of birds in flight at lower levels.

Per Figure 3.4-13, only LATT flights will utilize the Boardman Low MOA. The lower level LATT flights could lead to increased bird strikes since the northern edge of the Boardman Low MOA is approximately 1.5 nautical miles from the Umatilla National Wildlife refuge, and the eastern edge of the of the Boardman Low MOA is just over eight nautical miles from the Cold Springs National Wildlife Refuge. However, though the lower limit of the proposed MOA is 500 ft. AGL, the risk of aircraft strikes in the Boardman Low and Amended MOAs is reduced since the typical flight path of aircraft that would operate in the northeast MOA is climbing from low-altitude training over NWSSTF Boardman to higher elevations (while within the northeast MOA) in order to turn back towards the center of NWSSTF Boardman, and bird strikes are more common at lower levels.

Two other factors in concluding the risk level would remain relatively low because NWSSTF Boardman does not have a fixed-wing aircraft runway, and no specific bird-aircraft strike hazard concentrated risk areas have been identified by the Navy.

The potential for incidental bird mortality from aircraft strikes exists in the NWSSTF Boardman airspace. If they occur, bird-aircraft strikes would be infrequent and a small number of individuals would be affected. No population level effects would be expected based on the small number of individuals potentially affected. Aircraft strikes that might occur under Alternative 2 would have minor localized effects on birds and are not expected to affect mammals, amphibians, or reptiles. Aircraft strikes would have no effect on the Washington ground squirrel under Alternative 2.

#### *Vegetation/Plants*

Although the Navy's Proposed Action includes ground disturbing training activities, the ground disturbing activities will all take place within the NWSSTF Boundary and are not part of the new and amended MOA.

### **6.2.3 Summary**

Potential impacts on wildlife habitat are low within the proposed MOA areas. Wildlife would be exposed to aircraft noise more frequently based on the number of sorties, but the overall noise day night levels (DNL) will go down due to the change in aircraft flying sorties. The potential for incidental bird mortality from aircraft strikes exists in the NWSSTF Boardman airspace, but the risk of aircraft strikes are low. According to the Conference Opinion dated December 2, 2013 (Appendix B, Regulatory Correspondence of the FEIS), noise associated with aircraft overflights, helicopters, and unmanned aerial

systems are likely to have some effects on the Washington ground squirrel. The effects are expected to be limited to short-term physiological and behavioral responses, and no long term effects on the fitness of the individuals would be expected. Furthermore, aircraft strikes would have no effect on the Washington ground squirrel. Although the Navy's Proposed Action includes mitigation for impacts to the Washington ground squirrel related to ground disturbing training activities, the ground disturbing activities will all take place within the NWSTF Boundary and are not part of the new and extended MOA. Establishment of the proposed airspace will not have significant impacts on biological resources.

### **6.3 CLIMATE**

The table below presents greenhouse gas emissions estimates for the No Action Alternative, Alternative 1, and Alternative 2. All values are less than 1 teragram carbon dioxide equivalent (CO<sub>2</sub> Eq.). To place the estimated values in context, 2011 U.S. greenhouse gas emissions totaled 6,702.3 teragrams CO<sub>2</sub> Eq. Greenhouse gas emissions would increase as result of increased fixed-wing aircraft overflights, vehicle and equipment use on the new ranges, and the associated increases in fuel consumption in the Study Area.

**Estimated Greenhouse Gas Emissions for Training and Testing Activities at Naval Weapons Systems Training Facility Boardman**

Alternative	Annual Greenhouse Gas Emissions (teragrams CO <sub>2</sub> Eq.)
No Action Alternative	0.012
Alternative 1	0.038
Alternative 2 (Proposed Action)	0.038

The Proposed Action would not be expected to appreciably contribute to national GHG emissions, and therefore would not have a significant cumulative effect on climate.

### **6.4 COASTAL RESOURCES:**

The Navy determined that the Proposed Action would have no impact on coastal resources since the region of influence is geographically separated from coastal areas. Therefore, this impact category is not applicable.

### **6.5 DEPARTMENT OF TRANSPORTATION ACT: SECTION 4(f)**

Designation of airspace for military flight operations is exempt from section 4(f). The National Defense Authorization Act for Fiscal Year 1998 (Public Law 105-85) provided that "[n]o military flight operations (including a military training flight), or designation of airspace for such an operation, may be treated as a transportation program or project for purposes of section 303(c) of title 49, United States Code.

The proposed Action does not require the use of publically owned land of a public park, recreation area, or wildlife or waterfowl refuge or national, state, or local significance. The Proposed Action does not require the use of land from an historic site of national, state, or local significance.

## **6.6 FARMLANDS**

Some of the soils on NWSTF Boardman are classified as prime farmland or farmland of statewide significance based on soils data from the Natural Resources Conservation Service.

Training activities on the new ranges would result in additional ground disturbance compared to the No Action Alternative. Although prime and unique farmlands exist within the region of influence of the Navy's Proposed Action that includes ground disturbing construction and training activities, the ground disturbing activities will all take place within the NWSTF Boundary and are not part of the new and extended MOA.

There would be no significant impacts on soils from training activities for the Proposed Action because no farmland would be irreversibly converted to non-agricultural uses.

## **6.7 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION**

The Navy's Proposed Action includes ground disturbing training activities from air-to-ground bombing and air-to-ground gunnery exercises. The ground disturbing activities from these trainings will all take place within the NWSTF Boundary and are not part of the new and extended MOA, therefore neither general hazardous materials and waste nor contaminated sites are applicable to the Proposed FAA Action. In addition, routine refueling and/or maintenance would not occur in the areas underlying the proposed FAA Action's footprints.

## **6.8 HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES**

### **6.8.1 Affected Environment**

The direct APE for ground-disturbing activities, as defined in accordance with 36 C.F.R. §800.16(d), consists of about 1,927 ac. at NWSTF Boardman (Figure 3.10-1 of the FEIS). This direct APE includes archaeological resources, historic trails, architectural resources, and American Indian traditional cultural properties that could be impacted by ground disturbances that would occur under the Proposed Action. The direct APE is not located under the proposed new and extended MOAs.

The indirect APE for activities that could generate noise, vibration, and visual intrusions consists of areas that lie beneath Restricted Areas 5701A-E and the proposed Boardman Low MOA (Figure 3.10-2 of the FEIS). These areas represent special use airspace where low-altitude (less than 3,000 feet AGL) aircraft overflights may occur under the No Action Alternative (except the proposed Boardman Low MOA), and the Proposed Action.

The indirect APE for noise and visual intrusions includes historic trails, architectural resources, and American Indian traditional cultural properties in which historic setting may be critical to their eligibility for the NRHP (e.g., the Well Spring Segment of the Oregon Trail). For this undertaking, vibration intrusions apply to historic architectural resources, which could be affected by vibration from aircraft overflights.

## **6.8.2 Environmental Consequences**

### *Historic Trails*

Potential noise and visual intrusions to the historic setting of the Oregon Trail under the Proposed Action include increases in military readiness activities and construction of proposed range enhancements. These potential intrusions have been minimized by siting the proposed range enhancements to the north, away from the Oregon Trail. None of the buildings, other range enhancements, or ground-based training activities on the new ranges would be visible from the Oregon Trail interpretive area at the Emigrant Cemetery and Well Springs along the southern boundary of NWSTF Boardman. Members of the public visiting the Oregon Trail interpretive area might occasionally see and hear aircraft overflights, and might hear weapons firing on the new ranges. Visual and noise intrusions would be transient in nature, brief in duration, and would not permanently affect the overall setting, feeling, and association of the Well Spring Segment of the Oregon Trail or the Lower Well Spring Diversion of the Well Spring Segment under the Proposed Action.

Although two segments of wagon roads are located within the indirect APE beneath the proposed Boardman Low MOA, no public access is permitted (i.e., absence of human noise receptors). Noise and visual intrusions from increased aircraft overflights would be transient in nature and brief in duration.

### *Architectural Resources*

The World War II era headquarters building (Building 1) and the firehouse (Building 2) at Umatilla Chemical Depot are within the indirect APE. Noise and visual intrusions from use of the new ranges would not affect these buildings as these activities would occur on NWSTF Boardman located more than 12 mi. (19.3 km) west. Noise and visual intrusions from aircraft overflights would be transient in nature and brief in duration, and would not permanently affect the setting.

### *American Indian Traditional Cultural Properties*

Traditional cultural properties have been identified by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) within the NWSTF Boardman property boundary within the indirect APE. The Navy, in consultation with the CTUIR, determined that noise and visual intrusions associated with aircraft overflights and noise associated with weapons firing on the proposed ranges would have a potential adverse effect on traditional cultural properties under the Proposed Action. These potential adverse effects have been mitigated through the Memorandum of Agreement.

## **6.8.3 Summary**

On December 18, 2012, the Oregon State Historic Officer concurred that the project will have no effect on any known cultural resources (Appendix C, Tribal and Cultural Correspondence). This letter covered the Historic Trails and Architectural Resources discussed above.

To address the potential adverse effects on traditional cultural properties and establish protocols for protection and management of these resources in accordance with Section 106 of the National Historic Preservation Act; the Navy, Oregon State Historic Preservation Officer, CTUIR, and Advisory Council on Historic Preservation (ACHP) prepared a Memorandum of Agreement (2015) (Appendix C of the FEIS). The Memorandum of Agreement was signed by all parties in November and December of 2015, and it includes the stipulations to minimize and mitigate the visual impacts from the Proposed Action on the Traditional Cultural properties.

The Proposed Action would not result in significant impacts on cultural resources. Specifically the proposed action would not result in significant impacts on traditional cultural resources based on the Memorandum of Agreement (FEIS Appendix C) stipulations to minimize and mitigate the potential adverse effects to resolve potential adverse effects on the traditional cultural properties.

## **6.9 LAND USE:**

### **6.9.1 Affected Environment**

The airspace over NWSTF Boardman is comprised of two different types of SUA: Restricted Areas (R-5701 [A-E] and R-5706) that overlay portions of the NWSTF Boardman land areas and a MOA (Boardman MOA, OR) that overlies most of the Restricted Areas. Designated by the FAA, Restricted Areas are SUA within which the flight of non-participating aircraft, while not wholly prohibited, is subject to restrictions. Activities taking place in the airspace must be confined due to their nature and the need to adhere to limitations imposed on aircraft activities for which the SUA is designated (FAA JO 7400.8). Non-participating military and civilian aircraft are not allowed into the Restricted Areas without the controlling authority's approval.

The NWSTF Boardman is on federally-owned exclusive jurisdiction land, which is excluded from local and state jurisdictions with regard to land use controls. However, airspace associated with NWSTF Boardman does extend over non-federally owned lands in Morrow, Umatilla, and Gilliam counties.

In Morrow County, private farmland located west of NWSTF Boardman, Threemile Canyon Farms, agreed to designate 22,600 ac. (9,146 ha), as a Farm Conservation Area for management by the Nature Conservancy, as habitat for the Washington ground squirrel, birds, and plants. An additional 10,000 ac. (4,046.8 ha) of dry land may be developed as a wind power site (Windpower 2011). The Farm's remaining lands accommodate the Portland General Electric Company's coal-fired electric plant (which is aiming to be coal free by 2020), Boeing's aviation testing facility, and beef feedlots. On the far western boundary of Morrow County within the NWSTF Boardman restricted area, there are several proposed sites for wind turbine construction (Figure 3.7-3 of the FEIS). To the east of NWSTF Boardman there is mainly agricultural land, including a tree farm. There are some existing wind turbines to the far eastern border of the restricted area and there are several sites proposed for wind turbine construction closer to the eastern border of NWSTF Boardman (Figure 3.7-3 of the FEIS).

Umatilla County is located to the east of Morrow County. Extending east from the Morrow County line, the land use in Umatilla County includes small farms (Figure 3.7-2 of the FEIS). The only activities proposed to occur within Umatilla County are aircraft overflights within the eastern portion of the restricted airspace and the MOA over the northwestern portion of the county. These activities are proposed to occur over lands zoned currently as Federal Land (the Umatilla Chemical Depot [UCD]) and as Exclusive Farm Use.

Gilliam County is located to the west of Morrow County. Extending west from the Morrow County line, the land use in Gilliam County includes small farms and wind turbine operations (see Figure 3.7-3 of the FEIS). The only activities proposed to occur within Gilliam County are the western portion of the existing restricted airspace areas.

Large tracts of agricultural property are found to the north, east, and south of the installation. Since there are large tracts of agricultural or preserve lands surrounding the installation, there have historically been minimal non-Navy interests to interact with any Navy operations occurring at the installation. Land use surrounding NWSTF Boardman has generally been compatible with the military use of the facility and the airspace overhead. Evolving use of agriculture lands to support wind development has caused incompatible land use to occur, making it difficult to safely conduct military flight training activities within the restricted airspace.

### **6.9.2 Environmental Consequences**

Under the Proposed Action, air training activities would continue to traverse public and private lands in existing NWSTF Boardman airspace. The number of fixed-wing and rotary-wing (non-UAS) sorties would increase from 919 to 1,761 (per Table 2-4 of the FEIS) under the Proposed Action. The frequency of overflights would generally increase by up to 190 percent over existing conditions. While the total number of sorties would increase, typical flight paths for LATT would also change their orientation as a result of the addition of SUA (Boardman Low MOA and Boardman MOA [Proposed Extension]) (see Figure 3.7-4 of the FEIS) in order to address recent windmill construction to the southeast of NWSTF Boardman airspace. Individuals underneath the flight paths of these activities would be exposed to aircraft noise. Flights over public and private lands would continue to be of short duration (with flights lasting 5–10 seconds at any point along the aircraft's flight path). Air operations would continue to be conducted in accordance with regulations for the use of aircraft targets, Restricted Areas, and MOAs/Air Traffic Control Assigned Airspace scheduled by NASWI (NASWHIDBEY INSTRUCTION 3770.1). The placement of the northeast MOA is not anticipated to impact redevelopment of the Umatilla Chemical Depot<sup>4</sup>. On November 14, 2008, the Department of the Army issued a

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<sup>4</sup> Portions of the Land Use Chapter of the Boardman FEIS mischaracterizes the effect of FAA regulation 14 C.F.R. § 91.119 and impliedly the FAA's authority over local land use development in relation to the redevelopment of the Umatilla Chemical Depot. The responsibility for determining the acceptable and permissible land uses rests with local authorities. The FAA has jurisdiction over the National Airspace System. If the proposed action negatively impacted minimum safe altitudes the FAA would respond within its jurisdictional authority and in accordance with applicable laws and regulations.

surplus determination indicating that a total of 19,729 acres of property would be available for redevelopment. The approved redevelopment plan calls for the following land uses: Agriculture, Wildlife Refuge, Military Training, Highway Commercial Industrial, Interstate Corridor, Industrial Restricted and Industrial Unrestricted. Additional lands underneath the new northeast MOA would experience aircraft overflights though these events are not expected to influence ownership or management of the lands below the newly established MOA. Though the lower limit of the proposed airspace is 500 ft. (152.4 m) AGL, the typical flight path of aircraft that would operate in the northeast MOA is climbing from low-altitude training over NWSTF Boardman to higher elevations (while within the northeast MOA) in order to turn back towards the center of NWSTF Boardman. At these higher elevations, no changes to current or historical land uses are expected.

As listed in Section 3.4 (Noise) of the FEIS, portions of lands to the west of NWSTF Boardman (conservation lands and agricultural lands) and east (agricultural lands) have a community Day Night Levels (DNL) between 60 and 70 decibels, A-weighted (dBA) as a result of military training activities. Community sound levels up to 65 dBA are compatible with land uses such as residences, transient lodging, and medical facilities. Other land uses are compatible with expected noise exposure. The compatibility of existing and planned land uses is usually associated with the extent of the aircraft noise impacts. Actions to accommodate aircraft changes or the number of aircraft operations, or new routes are examples of activities that can alter aviation-related noise impacts and affect land uses subjected to those impacts. In this context, as the noise analysis described in the noise analysis section (Section 3.4 of the FEIS) concludes that there is no significant impact, a similar conclusion may be drawn with respect to compatible land use.

### **6.9.3 Summary**

The FAA has not established a significance threshold for land use. The determination that significant impacts exist is normally dependent on the significance in other impact categories. Under FAA Order 1050.1F, Appendix B-1.5, if the noise analysis for a proposed action concludes that there is no significant impact, a similar conclusion may be drawn with respect to land use. A significant impact would occur if analysis shows that the proposed action would cause noise sensitive areas to experience an increase in the DNL of 1.5 dB or more at or above DNL 65 dB exposure when compared to the no action alternative for the same timeframe. Noise levels below 65 dB DNL are compatible with all land uses listed in the FAA's land use compatibility guidelines<sup>5</sup>.

The noise modeling results show the noise levels below the 65 dB DNL threshold for all but a small southern portion of the proposed Boardman Amendment and Boardman Low MOAs, and this small area in the 65 to 69.9 DNL contour will experience a noise reduction under the proposed action. The majority of proposed MOA Amendment will experience a noise increase, but it is below 65 DNL and the land use is primarily agricultural, which is not considered noise sensitive. The noise-sensitive locations in the study area are outside of the MOA Amendment area.

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<sup>5</sup> 14 Code of Federal Regulations, Part 150, Appendix A, Part B, Table 1

## **6.10 NATURAL RESOURCES AND ENERGY SUPPLY**

Military training involves consumption of nonrenewable resources, such as jet fuel, and materials for the manufacture of training materials such as chaff<sup>6</sup> and flares<sup>7</sup>. Training operations would increase the consumption of nonrenewable resources and commitment of resources for munitions, chaff, and flares for the proposed action. Per Table 2-4 of the FEIS, the annual number of training events (for fixed wing aircraft) will increase from 847 to 1668 for the Proposed Action.

The FAA has not established a significance threshold for Natural Resources and Energy Supply, however a factor to consider in determining whether the action would have a significant impact is whether the action would have the potential to cause demand to exceed available or future supplies of these resources. FAA Order 1050.1F, Exhibit 4-1. While the energy use of Proposed Action would increase due to the additional military readiness training sorties, the amount and rate of consumption of resources would not significantly change, and would not result in significant environmental impacts, or the unnecessary, inefficient, or wasteful use of resources. The proposal for the new and extended MOAs are intended to ensure that the travel time to and from a training site will not exceed 25 percent of the total training hours for a Multiple Unit Training Assembly, and NWSTF Boardman is the closest training site available for Naval Air Station Whidbey.

### **6.10.1 Summary**

The proposed action would not have the potential to cause demand to exceed the available or future supplies of these resources and therefore there would not be a significant impact to natural resources or energy supply. DoD policies and directives for operations at every level mandate minimization of the use of energy resources wherever possible without compromising safety of training activities.

## **6.11 NOISE AND NOISE COMPATIBLE LAND USE**

The significance threshold for noise is whether the proposed action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB increase, when compared to the no action alternative for the same timeframe. FAA Order 1050.1F Exhibit 4-1. The noise analysis for a proposed action concludes that when there is no significant impact, a similar conclusion may be drawn with respect to compatible land use. FAA Order 1050.1F, Appendix B-1.5. Noise levels below DNL 65 dB are compatible with all land uses listed in the FAA's land use

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<sup>6</sup> Chaff is a self-protection device that permits an aircraft threatened by enemy radar-directed munitions to distract and/or avoid the threat. Although the chaff may be ejected from the aircraft using a small pyrotechnic charge, the chaff itself is not explosive. Depending on the chaff used, plastic or nylon pieces, a felt piece, or 2- by 3-inch square of parchment paper can fall to the ground with each released chaff bundle.

<sup>7</sup> Flares are used in pilot training to develop the near instinctive reactions to a threat that are critical to combat survival. Flares ignite upon ejection from the aircraft and burn completely within approximately 3.5 to 5 seconds, or approximately 400 to 500 feet from its release point.

compatibility guidelines under 14 CFR Part 150. The FAA recognizes, however, that there are settings where the DNL 65 dB standard may not apply. Special consideration needs to be given to noise sensitive areas within Section 4(f) properties (including, but not limited to, noise sensitive areas within national parks; national wildlife and waterfowl refuges; and historic sites, including traditional cultural properties) where the land use compatibility guidelines in 14 CFR part 150 are not relevant to the value, significance, and enjoyment of the area in question.

### **6.11.1 Affected Environment**

The nearest noise-sensitive land uses are in the city of Boardman (residential zones), and are approximately 0.6 mi. north of the northern border of NWSTF Boardman (approximately 5 mi. north of the main target area [see Figure 2-1 of the FEIS] where the majority of noise generating activities occur). The land use along the eastern boundary of NWSTF Boardman is agricultural. Land uses along the western boundary of NWSTF Boardman are conservation areas, agricultural areas, an aviation test facility, and a power plant. The 2010 U.S. Census information for census blocks 9701, 9702, 9601, and 9505, which underlie NWSTF Boardman airspace (Boardman Restricted Area Airspace and MOA); indicate there are approximately 3,344 residences under the NWSTF Boardman Airspace (Table 3.4-5 of the FEIS). It is important to note that the census blocks do not completely align with NWSTF Boardman airspace, and many of the sub-blocks of the census blocks only partially underlie the airspace due to their configuration. Most of the residences are concentrated in residential zones within and surrounding the cities of Boardman, Ione, Arlington, Umatilla, and Hermiston. As indicated in Figure 3.4-4 of the FEIS, there are three schools and one library that underlie the NWSTF Boardman SUA (all within the City of Boardman): Sam Boardman Elementary School, Windy River Elementary School, Riverside Junior/Senior High School; and the Boardman City Library. The land use zones on both the eastern and western sides of NWSTF Boardman are not considered noise-sensitive, as they are classified as agricultural use.

### **6.11.2 Environmental Consequences**

Under the proposed action there is no 1.5 dB increase into or within the 65 DNL contour, therefore there are no significant impacts to noise. The Proposed Action would include an increase in existing training activities, new training activities, and range enhancements to meet Navy and ORNG training requirements. Some ongoing training activities would increase as a result of force structure changes associated with the introduction of new aircraft or other equipment. The Boardman Low MOA will reduce the floor altitude to 500 feet AGL. The Boardman MOA Amendment would be created with a floor altitude of 4,000 feet MSL.

The total number of aircraft sorties (fixed-wing, helicopter, and UAS) would increase from 1,815 under the No Action Alternative to 3,470 (Table 2-4 of the FEIS). The total flight time would also increase under the Proposed Action from 5,255 hours to 9,781 hours. The majority of all aircraft sorties are conducted by EA-18G Growler and ScanEagle. While the total number of sorties would increase, typical flight paths for LATT would change their orientation as a result of the addition of the northeast MOA (Boardman Low MOA and Boardman MOA [Proposed Expansion]) (see Figure 3.4-13 of the FEIS).

The Proposed Action introduces the use of the F-35C Joint Strike Fighter during Air and Strike Warfare Training Activities. As presented in Table 3.4-10 of the FEIS, at a distance of 1,000 ft. and at military power (the maximum power of the engine without using afterburners), the received sound exposure level (SEL) was reported as 115 dBA. At 5,000 ft., the reported received SEL was 98 dBA and at 10,000 ft., the received SEL was reported as 90 dB. Therefore, individuals underneath the flight paths of these activities would be exposed to aircraft noise as the aircraft passed overhead, however, the length of the exposure is anticipated to be short as the amount of time the noise source is over a sensitive receptor is extremely brief.

Noise modeling was performed for all aircraft activities utilized under the Proposed Action at NWSTF Boardman. Under the proposed action, the Boardman Amendment and Boardman Low MOAs, DNL is predominantly in the 60 to 64.9 dB range, with a small portion in the 65 to 69.9dB range (Figure 3.4-14). The reduction in noise between the baseline condition and Alternative 2 for the small portion of the MOA above 65 DNL is -3 to -1.5 dB. This noise reduction is due to the change in aircraft from the EA-6B to the EA-18G, even though the total number of sorties almost doubles under Alternative 2.

The land use in the 60 to 64.9 dB contour area is predominately agricultural and is not considered noise-sensitive. The Umatilla Chemical Depot (UCD) is also within the proposed MOA amendment area, and it is slated for redevelopment. The approved Redevelopment Plan for the UCD calls for the following land uses: Agriculture (655 ac.), Wildlife Refuge (5,613 ac.), Military Training (7,421 ac.), Highway Commercial Industrial (1,077 ac.), Interstate Corridor (91 ac.), Industrial Restricted (942 ac.), and Industrial Unrestricted (1,115 ac.) (Figure 3.7-5).

### **6.11.3 Summary**

Under FAA Order 1050.1F, Exhibit 4-1, the threshold for significance for noise is whether the proposed action would increase noise by DNL 1.5dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase when compared to the no action alternative. There is no 1.5 dB increase into or within the 65 DNL contour, therefore there are no significant impacts to noise. The noise modeling results show the noise levels are below the 65 dB DNL threshold for all but a small southern portion of the proposed Boardman Amendment and Boardman Low MOAs, and this small area in the 65 to 69.9 DNL contour will experience a noise reduction under the proposed action. The majority of proposed MOA Amendment will experience a noise increase, but it is below 65 DNL and the land use is primarily agricultural, which is not considered noise sensitive. The noise-sensitive locations in the study area are outside of the MOA Amendment area.

## **6.12 SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS**

### **6.12.1 Socioeconomic Impacts**

NWSTF Boardman is located in a rural urban area approximately 2.5 miles south of the City of Boardman. Land use in the surrounding areas consists of agricultural lands, undeveloped areas, wind development projects, a tree farm to the east, a recreational trail to the south, and conservation areas to the west. Increases in personnel at NWSTF Boardman and military readiness activities may have a beneficial effect on the local economy due to an increase in spending by military personnel employed at NWSTF Boardman. The establishment and use of additional MOAs to the northeast of the existing airspace would occur (Figure 2-5 of the FEIS); however, economic activity, such as local employment, farming or ranching operations, would not change. There would be no economic impact from construction activities related to farming and ranching operations or other activities on neighboring lands and areas under military airspace because construction of the additional facilities would occur within NWSTF Boardman range boundaries. While local activities would need to schedule for use of airspace, there would be no significant impact or change in economic activity under the Proposed Action.

### **6.12.2 Environmental Justice**

Air emissions do occur from the Proposed Action, but they do not pose human health or environmental risks to surrounding communities as the status of the air quality in the Eastern Oregon Intrastate Air Quality Control Region 191 would not be affected.

Water resources at NWSTF Boardman are very limited and no year-round surface waters are present. Within the proposed new MOA and the extension of the existing MOA, the Proposed Action would not result in any ground-disturbing activities that could affect water resources.

The Navy has specific and documented public health and safety procedures in place to ensure that non-participants, including children, are not endangered by Navy actions, including fencing, and signage.

Impacts on traditional cultural resources can be an environmental justice concern under EO 12898. Cultural resources are discussed in detail in the FEIS. No significant unavoidable impacts on traditional cultural resources are anticipated to result from the changes that would occur as a result of the Proposed Action. To address the potential adverse effects on traditional cultural properties and establish protocols for protection and management of these resources in accordance with Section 106 of the National Historic Preservation Act, the Navy, Oregon State Historic Preservation Officer, CTUIR, and ACHP prepared a Memorandum of Agreement (2015) (Appendix C of the FEIS). The Memorandum of Agreement was signed by all parties in November and December of 2015, and it includes the stipulations to minimize and mitigate the visual impacts from the Proposed Action on the Traditional Cultural properties.

The addition of the proposed MOAs and increase in Low-Altitude Tactical Training within the proposed MOAs would generate levels of sudden-onset pass-by aircraft sound, but few individuals would be close enough to the aircraft to hear such sounds, as these

activities would occur over agricultural and non-residential areas. Based on the distribution and magnitude of noise impacts under the Proposed Action, communities located under the proposed MOAs would be slightly affected by training noise. Visual inspection of aerial maps of the areas within regions where the DNL is in excess of 65 dBA reveals that the majority of the area is utilized for agricultural purposes. The noise modeling results show the noise levels are below the 65 dB DNL threshold for all but a small southern portion of the proposed Boardman Amendment and Boardman Low MOAs, and this small area is in the 65 to 69.9 DNL contour will experience a noise reduction under the proposed action. The majority of proposed MOA Amendment will experience a noise increase, but it is below 65 DNL and the land use is primarily agricultural, which is not considered noise sensitive. The noise-sensitive locations in the study area are outside of the MOA Amendment area.

Implementation the Proposed Action would not result in disproportionately high and adverse human health or environmental effects on minority and low-income populations.

### **6.12.3 Children's Environmental Health, Safety Risks:**

Impacts from air quality, water resources, noise, traditional cultural properties and public health and safety were analyzed to identify and assess environmental health risks and safety risks that may disproportionately affect children and to ensure that any activities address disproportionate risks to children that result from environmental health risks or safety risks as required in EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks* and FAA Order 1050.1F, Exhibit 4-1. An assessment of the proposed actions identified no disproportionately high and adverse environmental or health effects on children. While there will be more flights near three schools and children will be slightly affected by training noise, the DNL is less than 65, so the noise associated with the Proposed Action is not considered a significant change.

### **6.12.4 Summary**

Based on the FAA's independent review and evaluation, the FAA concludes that the Proposed Action would not result in a significant change in the air quality and noise conditions for the area underlying the MOAs; therefore there will be no disproportionate impacts on minority, low-income, and youth populations.

## **6.13 VISUAL EFFECTS**

### **6.13.1 Light Emissions**

The FAA has not established a significance threshold for Light Emissions, however two factors to consider in determining whether the action would have a significant impact is whether the action would create annoyance or interfere with normal activities from light emissions, and whether the proposed action would affect the visual character of the area due to the light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources. An evaluation of visual effects considers the extent to which any lighting associated with an action will create an annoyance among people in the vicinity or interfere with their normal activities. Aesthetic impacts deal more broadly with the extent that the development contrasts with the existing environment and whether the contrast is objectionable.

Light emissions from nighttime training exercises were considered. The Proposed Action will increase the number of annual sorties from 919 to 1,668 (Table 2-4 of the FEIS). Most of the proposed sorties will take place during the day, but there will be limited annual nighttime sorties. Nighttime airspace operations include:

- Approximately two to three parachute drops, with about one to two above 3,000 feet Mean Sea Level (MSL)
- 19 helicopter sorties, with about six above 3,000 feet MSL; and
- about 13 EA-18G Growler sorties, with four to five above 3,000 feet MSL

The use of tracer ammunition (tracer rounds), flares, and other incendiary devices may be used for training if the wildfire risk is acceptable.

- Tracer rounds are bullets that are built with a small pyrotechnic charge in their base. Ignited by the burning powder, the pyrotechnic composition burns very brightly, making the projectile visible to the naked eye. This enables the shooter to follow the bullet trajectory in order to make aiming corrections.
- Flares ignite upon ejection from the aircraft and burn completely within 3.5 to 5 seconds. Flares deployed from aircraft would pose, at most, a minimal visual intrusion as they burn out quickly. If multiple flares are deployed at night, they may appear as a blinking light as successive flares are deployed and burn out.

Due to the limited number of nighttime operations, light emissions will be negligible and are geographically separated from areas adjacent to public use of lands, thus minimizing the possibility of annoyance from light emissions.

### **6.13.2 Visual Resources/Visual Character**

The FAA has not established a significance threshold for Visual Resources/Visual Character; however three factor two factors to consider in determining whether the action would have a significant impact is whether the action would have the potential to:

- Affect the nature of the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected visual resources
- Contrast with the visual resources and/or visual character in the study area; and
- Block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations

#### **6.13.2.1 Chaff**

The annual number of training events using chaff will increase from 193 under the No Action Alternative to 500 under the Proposed Action. Chaff may be ejected from the aircraft using a small pyrotechnic charge; however, the chaff itself is not explosive. Depending on the chaff used, plastic or nylon pieces, a felt piece, or a 2- by 3-inch piece of parchment paper can fall to the ground with each released chaff bundle. The release of chaff could have a visual effect from residual materials, which remain on the ground or land on structures. Chaff does not accumulate to any great degree and quickly become indistinguishable from soil to due to mechanical breakdown from wind or rain. Visual intrusions would be transient in nature, brief in duration, and would not permanently affect the overall setting, feeling, and association of any cultural resources or the area in general.

### **6.13.2.2 Incendiary Devices**

The number of annual training events for Air-to-Ground Gunnery Exercise will increase from 20 to 70 for the Proposed Action. The annual training events for Air-to-Ground Bombing will not change between the No Action and the Proposed Action.

The use of tracer rounds and other incendiary devices would be limited to periods when the risk of wildfire is at acceptable levels. Tracer rounds would be restricted during the fire season from May to October and use would require appropriate approval from NAS Whidbey Island.

To determine if the wildfire risk is at an acceptable level for the use of aerial flares, smoke-grenades, and tracer rounds outside of the fire season, an internal Fire Danger Rating and Wildland Fire Risk Management Matrix would be utilized. This protocol utilizes weather data (temperature, relative humidity and precipitation), fire danger rating (low through extreme), military activity, firefighting assets available on site and other special considerations to identify the appropriate use of aerial flares and smoke-grenades.

Use of aerial flares and smoke-grenades would be addressed on a case-by-case basis based on the risk assessment, application of ammunition, and timing during the fire season. Pyrotechnic devices, such as smoke grenades, are to be used in metal containments during high fire risk periods.

Visual intrusions would be transient in nature, brief in duration, especially during the fire season, and would not permanently affect the overall setting, feeling, and association of any cultural resources or the area in general.

### **6.13.2.3 Visual Impacts to Traditional Cultural Properties**

The Navy, in consultation with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), determined that visual intrusions associated with aircraft overflights associated with weapons firing on the proposed ranges would have a potential adverse effect on traditional cultural properties under the Proposed Action. The Navy, Oregon State Historic Preservation Officer, CTUIR, and ACHP prepared a Memorandum of Agreement (2015) (Appendix C of the FEIS) to resolve potential adverse effects on traditional cultural properties and establish protocols for protection and management of these resources in accordance with Section 106 of the National Historic Preservation Act. The Memorandum of Agreement was signed by all parties in November and December of 2015, and it includes the stipulations to minimize and mitigate the visual impacts from the Proposed Action on the Traditional Cultural properties.

The Proposed Action would not result in significant impacts on cultural resources based on the Memorandum of Agreement (Appendix C of the FEIS) stipulations to minimize and mitigate the potential adverse effects to resolve potential adverse effects on the traditional cultural properties.

### **6.13.2 Summary**

Based on the FAA's independent review and evaluation, the FAA concludes that the proposed actions will not have significant impacts in the category of light emissions and visual impacts.

## **6.14 WATER RESOURCES**

Surface water resources at Naval Weapons Systems Training Facility (NWSTF) Boardman are very limited and no year-round surface waters are present. Within the proposed new MOA and the extension of the existing MOA, the Proposed Action would not result in any ground-disturbing activities.

### **6.14.1 Wetlands**

Wetlands do not exist at NWSTF Boardman and hydric soils are not present.

### **6.14.2 Floodplains**

The Proposed Action does not include any actions that would encroach on a floodplain; therefore, this impact category is not applicable.

### **6.14.3 Surface Waters**

There are no year-round surface waters in the study area. The creation of a new MOA and the extension of the existing MOA in the Proposed Action do not result in any actions that would use/consume or impact surface water; therefore, this impact category is not applicable.

### **6.14.4 Groundwater**

The creation of a new MOA and the extension of the existing MOA in the Proposed Action do not result in any actions that would use/consume or impact groundwater; therefore, this impact category is not applicable.

**6.14.5 Wild and Scenic Rivers:** The Columbia River is not designated as Wild and Scenic; therefore, this impact category is not applicable.

### **6.14.6 Summary**

Based on the FAA's independent review and evaluation, the FAA concludes that the Proposed Action would have no impact on water quality or water resources.

## **6.15 CUMULATIVE**

The Navy's FEIS discusses potential cumulative impacts of the proposed actions in Section 4.0. The analysis in the FEIS examines whether the incremental impacts of the Proposed Action, when added to the effects of other past, present, and reasonably foreseeable actions, would result in potentially significant impacts not identified when the proposed airspace actions are considered separately.

Past, present, and reasonably foreseeable actions are identified in Table 4-1 of the FEIS. Actions retained for analysis include actions by Portland General Electric, Idaho Power, Umatilla Electric Cooperative, Iberdrola Renewables, redevelopment of the Umatilla

Chemical Depot Base, other NWSTF Boardman base improvements, and multiple existing and proposed wind turbine installations.

#### *Air Quality*

Long-term increases in NO<sub>x</sub>, SO<sub>x</sub>, and suspended particulate matter associated with the Proposed Action and the Carty Generating Station would be offset by long-term decreases achieved by emissions controls at the PGE Boardman Plant and completion of chemical demilitarization operations at Umatilla Chemical Depot (UCD). Likewise, the increases associated with the Proposed Action and the Carty Generating Station would negate some of the air quality benefits achieved by the Boardman Plant emissions controls. The Proposed Action and the Carty Generating Station would increase CO and VOC emissions. Future stationary source emissions could also result from industrial reuse of UCD, but sufficient information is not available to predict future air pollutant emissions. Future industrial sources at UCD would be subject to Clean Air Act and Oregon Department of Environmental Quality permitting requirements, which would help to control the incremental contribution of these potential sources. An overall decrease in air pollutant emissions is expected when the Alternatives are considered in combination with past, present, and reasonably foreseeable future actions (Table 4-3 of the FEIS). Therefore, significant cumulative impacts on air quality are not expected.

#### *Biological Resources*

The biological resource impacts from NWSTF Boardman affecting the MOA areas are not likely to have significant impacts on biological resources with the mitigation measures identified in the FEIS and ROD. Noise and ground disturbing impacts are the two resources that could affect wildlife and vegetation in the study area. With the Proposed Action, the noise over the MOAs will primarily be less than 65 DNL, and the small area in the 65 to 69.9 contour will experience a noise reduction. In addition, changes to the airspace are not likely to affect vegetation since there are no ground disturbing activities within the MOA areas.

Ongoing and future natural resources management activities on NWSTF Boardman would provide long-term benefits for shrub-steppe and grassland communities through invasive plant control and restoration. Proposed MPs and mitigation measures under the Proposed Action would include restoring native plant communities in the southern portion of NWSTF Boardman, and modifying the fire break system. Other actions in the region such as continued management of the Boardman Conservation Area, Lindsay Prairie Preserve, and Horn Butte Area of Critical Environmental Concern, and possible establishment of a wildlife refuge at UCD would also protect shrub-steppe and grassland communities.

Future actions outside the boundaries of NWSTF Boardman, including the Carty Lateral Project, wind energy projects, the two transmission line projects, and reuse development at UCD are expected to impact shrub-steppe and grassland communities in the vicinity of NWSTF Boardman and in the region.

The Carty Lateral Project is expected to impact about 147 ac. of natural vegetation and approximately 2,578 ac. of non-agricultural vegetation types, primarily grassland and shrub-steppe vegetation, would be lost in the Columbia Plateau Ecoregion to existing and proposed wind energy development through 2015. Estimating the area of shrub-steppe and

grassland communities that would be impacted by the remaining actions is not possible based on available information. However, given the length of the proposed transmission lines and the width of the required easements (250 ft.), the area of shrub-steppe and grasslands impacted is expected to be substantially larger than the Carty Lateral Project (147 ac.), which requires only a 50 ft. (15.2 m) easement. Sufficient information is not available to make conclusions regarding the significance of impacts associated with other actions. However, it is expected that other future actions would affect a relatively small percent of shrub-steppe and grassland communities in the Columbia Plateau Ecoregion (approximately 1.5 million ac. [607,028 ha] [Kagan et al. 2000]). Impacts of the Proposed Action on vegetation would be additive to the impacts of other actions that would adversely affect shrub-steppe and grassland communities in the region; however, the contribution would be small when considered relative to other actions such as wind energy development, electrical transmission lines, and historical habitat conversion to agricultural lands.

Estimating the area of wildlife habitat that would be impacted by other actions is not possible based on available information. However, given the length of the proposed transmission lines and the width of the required easements (250 ft.), the area impacted by the proposed transmission lines is expected to be substantially larger than the Carty Lateral Project (147 ac.), which requires only a 50 ft. easement. Sufficient information is not available to make conclusions regarding the significance of impacts associated with other actions. However, it is expected that other future actions would affect a relatively small percent of shrub-steppe and grassland communities in the Columbia Plateau Ecoregion (approximately 1.5 million ac. [Kagan et al. 2000]). Impacts of the Proposed Action on wildlife habitat would be additive to the impacts of other actions that would adversely affect shrub-steppe and grassland communities in the region.

#### *Hazardous Materials, Solid Waste, and Pollution Prevention*

The analysis in Section 3.1 (Soils) indicates that the No Action and the Proposed Action would result in long-term, minor, and localized impacts to soils and the potential for generating hazardous materials. Therefore, detailed analysis of cumulative impacts on soils is not warranted.

#### *Historic, Architectural, Archaeological and Cultural Resources*

The analysis in Section 3.10 (Cultural Resources) indicates that the Proposed Action would have no effect and no adverse effects on archaeological resources, historic trails, or architectural resources. Traditional cultural properties have been identified by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) within the NWSTF Boardman property boundary within the indirect area of potential effect. The Navy, in consultation with the CTUIR, determined that noise and visual intrusions associated with aircraft overflights and noise associated with weapons firing on the proposed ranges would have a potential adverse effect on traditional cultural properties under the Proposed Action. The Navy, Oregon State Historic Preservation Office, CTUIR, and Advisory Council on Historic Preservation prepared a Memorandum of Agreement (FEIS Appendix C) to resolve potential adverse effects on traditional cultural properties and establish protocols for protection and management of these resources in accordance with Section 106 of the National Historic Preservation Act. Proponents of future federal actions (e.g., federal projects, federally funded projects, or projects that require a federal permit,

license, or approval) that could affect cultural resources would be required to consult with Oregon State Historic Preservation Office (SHPO) and other stakeholders. This consultation process would help to ensure that impacts on cultural resources are avoided, minimized, and resolved through mitigation, when necessary. Therefore, cumulative impacts on cultural resources are not considered significant.

#### *Land Use*

As discussed in Section 3.7 of the FEIS (Land Use), lands underneath the northeast MOA would experience aircraft overflights under the No Action Alternative, Alternative 1, and Alternative 2. The typical flight path of aircraft in the northeast MOA (Boardman Low MOA and Boardman MOA [Proposed Extension]) is climbing from low-altitude training over NWSTF Boardman to higher elevations (while within the northeast MOA) where they would turn back towards the center of NWSTF Boardman and reduce their altitude. Thus, at these higher elevations, it is not expected that there would be any changes to historical land uses or recreational activities in these areas.

Under the Proposed Action, there would be a moderate decrease in available airspace time for non-participating aircraft as well as a decrease in the available airspace time for non-participating aircraft in the northeast MOA. The proposed MOA would overlie the former national security area that is above the Umatilla Chemical Depot. As the proposed MOA is not a restricted area, local aviators have the ability to transit the airspace when not active; this decrease in availability is expected to be less than significant impacts. The majority of regional projects only have temporary land use impacts during the construction phase. Additionally, the activities proposed typically are compatible with existing land uses and zoning in the region. The incremental contribution to impacts on regional land use or recreational use of the area would be temporary and would not be considered to be significant.

#### *Natural Resources and Energy Supply*

Most resource commitments are neither irreversible nor irretrievable. Most impacts are expected to be short-term and temporary. Implementation of the proposed actions and future actions would require the use of nonrenewable resources such as fuels used by aircraft and ground-based vehicles. Total fuel consumption would increase and this nonrenewable resource would be irreversibly lost. Resources that would be permanently lost and continually consumed include water, electricity, natural gas and fossil fuels.

#### *Noise and Noise compatible Land Use*

The incremental contribution of the Proposed Action to cumulative impacts would be low for the following reasons:

- Noise impacts from training activities under Alternative 2 are minor to negligible on lands outside of the Target Areas, and are further reduced by the training schedule.
- Aircraft training and demolition activities on NWSTF Boardman occur primarily during the day, whereas individuals are most sensitive to noise at night.
- The areas surrounding NWSTF Boardman are primarily agricultural and thus, very few members of the public are exposed to noise from training activities on NWSTF Boardman.

Future development, consisting of the specific projects listed in Section 3.4 (Noise), along with regional growth of urban areas and regional increases in wind development, would incrementally increase average noise levels during construction as well as during operation (e.g., wind turbines). Construction related to new development would result in short-term increases in daytime noise levels in the vicinity of those projects. In rural portions of Morrow, Gilliam, and Umatilla Counties, vehicle noise from increased traffic on local roads and regional highways would be the largest sources of increased noise. Daytime noise levels would likely increase more than nighttime noise levels. Substantial increases in sources of intrusive noise are not expected.

While noise from wind turbines will increase the sound environment in their immediate vicinity, an expert panel review on wind turbine noise and health effects (American Wind Energy Association and Canadian Wind Energy Association 2009) determined that (1) noise from wind turbines does not pose a risk of hearing loss or any other adverse health effect in humans; (2) sub-audible, low frequency noise and infrasound from wind turbines do not present a risk to human health; (3) some people may be annoyed at the presence of noise from wind turbines but annoyance is not a pathological entity; and (4) a major cause of concern about wind turbine noise is its fluctuating nature. Some may find this noise annoying, a reaction that depends primarily on personal characteristics as opposed to the intensity of the noise level.

Overall, cumulative increases in long-term average sound levels in rural portions of Morrow, Gilliam, and Umatilla Counties from planned and proposed projects would not be significant. Additionally, the increase in training activities associated with the Proposed Action would not increase long-term community noise levels above 65 A-weighted decibels beyond the boundaries of NWSTF Boardman, except for a small portion of agricultural land immediately west of Boardman (0.94 square miles). Therefore, further analysis of cumulative impacts on the noise environment is not warranted.

#### *Socioeconomics, Environmental Justice*

The analysis presented in Section 3.8 (Socioeconomics and Environmental Justice) indicates that increases in personnel at NWSTF Boardman and training activities would have a beneficial effect on the local economy due to an increase in spending by military personnel employed or training at NWSTF Boardman. Based on the analysis presented in Section 3.8 (Socioeconomics and Environmental Justice) and the reasons summarized below, the contribution of Alternatives 1 and 2 to cumulative impacts would be low for the following reasons:

- Economic activity, such as local employment and materials purchasing associated with the proposed construction of new facilities under Alternatives 1 and 2, would provide short-term economic benefits to the local economy that would last for the duration of the construction; however, beneficial impacts from construction would be negligible on a regional scale.
- Other economic activity, such as the presence of non-local construction crews, would also provide short-term economic benefits to the local economy for the duration of the construction activities; however, beneficial impacts from this activity would be negligible on a regional scale.

- The presence of Guard and Navy training units would represent a minimal positive net economic impact on a regional scale since personnel associated with training activities will mainly remain within NWSSTF Boardman.

Future development, consisting of the specific projects listed in Section 4.3 of the FEIS (Other Actions Analyzed in the Cumulative Impacts Analysis), along with regional growth of urban areas and regional increases in wind development, would increase economic benefits, especially if the projects utilize local resources. Construction related to new development would result in short term increases in the utilization of local workforce. Overall, cumulative increases in long-term economic benefits in Morrow, Gilliam, and Umatilla Counties from planned and proposed projects would not be significant. Therefore, further analysis of cumulative impacts on socioeconomics is not warranted.

#### *Visual Effects*

Projected increase in operational emissions would produce very low ambient pollutant impacts in the area. The nominal increase in ambient pollutant levels attributable to proposed emissions within this area, in combination with emissions from other future sources and projects in the region, would produce less-than-significant impacts on air quality values and visibility within the area.

Reuse development of the UCD, the proposed Carty Lateral Project transmission line installation, and the existing and proposed future wind turbine installations will introduce new structures into the view-scape.

#### *Water Resources*

The analysis presented in Section 3.3 of the FEIS (Water Quality) indicates that the No Action Alternative and the Proposed Action would have negligible impacts on water resources. The foreseeable future actions are also unlikely to impact water resources. Therefore, detailed analysis of cumulative impacts on water resources is not warranted.

#### *Summary*

The FAA has determined that the FEIS and its supporting documentation, as incorporated, adequately assess and disclose the environmental impacts of the proposed action.

Based on the FAA's independent review and evaluation, the FAA concludes that with the mitigation measures described in the Final EIS and the NHPA Section 106 Memorandum of Agreement, the Proposed Action, when considered with other past, present, and reasonably foreseeable future actions, is not likely to result in significant cumulative impacts.

## **7.0 INCORPORATED BY REFERENCE**

The FAA has also reviewed the following information:

- Final Environmental Impact Statement for Military Readiness Activities At Naval Weapons Systems Training Facility Boardman, OR, December 2015

## **8.0 DECISIONS AND ORDERS**

### **8.1 Adoption**

In accordance with FAA Order 1050.1F, paragraph 8-2, the FAA has conducted an independent review and evaluation of the Navy's Final EIS for the proposed military training readiness activities at NSTF Boardman and prepared this Record of Decision. Based on its independent review, the FAA has determined that the FEIS and its supporting documentation, as incorporated by reference, adequately assess and disclose the environmental impacts of the FAA's Proposed Action and that the adoption of the Final EIS by the FAA is authorized under 40 C.F.R. § 1506.3.

In addition, the FAA has determined that there have not been substantial changes to the Proposed Action that are relevant to environmental concerns, and that there are no significant new circumstances or information relevant to environmental concerns and bearing on the Proposed Action or its impacts. Therefore, the FAA has concluded that a supplement to the Final EIS is not required.

Accordingly, the FAA adopts the Final EIS and takes full responsibility for the scope and content that addresses the Proposed Action.

The FAA will notify EPA of this adoption decision in accordance with FAA Order 1050.1F, paragraph 8-2f.

## 8.2 Decision and Approval

After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in Section 101(a) of the NEPA, as amended, and other applicable environmental requirements. Public participation in the airspace circularization process for the Special Use Airspace proposal was conducted in accordance with FAA Order JO 7400.2, and the comments received concerning potential impacts on aviation were considered and adequately addressed.

The undersigned has carefully considered the FAA's statutory mandate under 49 U.S.C. 40103 to ensure the safe and efficient use of the national airspace system as well as the other aeronautical goals and objectives discussed in the FEIS. The undersigned concurs that Alternative 2 provides the best airspace combination for meeting the needs stipulated in the FEIS, and that all practicable means to avoid or minimize environmental harm from that alternative have been adopted.

Accordingly, under the authority delegated to the undersigned by the Administrator of the Federal Aviation Administration, the undersigned approves and authorizes all necessary agency action to establish the new and expand the existing MOA for the Military Readiness Activities at NWSTRF Boardman, Oregon, as described in the Proposed Action.

This decision signifies that applicable Federal environmental requirements relating to the Proposed Action have been met. The decision enables the FAA to complete its Non-Rulemaking actions to establish and expand the NWSTRF Boardman MOAs, as described in the Proposed Action.

## 8.3 Order and Right of Appeal

The Adoption/ROD for the expansion of NWSTRF Boardman constitutes a final order of the FAA Administrator and is subject to exclusive judicial review under 49 U.S.C. §46110 by the U.S. Circuit Court of Appeals for the District of Columbia or the U.S. Circuit Court of Appeals for the circuit in which the person contesting the decision resides or has its principal place of business. Any party having substantial interest in this order may apply for review of the decision by filing a petition for review in the appropriate U.S. Court of Appeals no later than 60 days after the date of this notice in accordance with the provisions of 49 U.S.C. §46110. Any party seeking to stay implementation of the action as stated in the ROD must file an application with the FAA prior to seeking judicial relief as provided in Rule 18(a) of the Federal Rules of Appellate Procedure.

Approved: \_\_\_\_\_



Date: \_\_\_\_\_

8/29/2016

Leslie Swann, Manager  
Airspace, Regulations & ATC Procedures Group  
Mission Support Service  
Air Traffic Organization  
Federal Aviation Administration