APPENDIX C

DRAFT EIS COMMENTS AND RESPONSES

Appendix C
Draft EIS Comments and Responses

Introduction

The Oregon Air National Guard (ANG), in coordination with the Oregon Military Department (OMD), conducted five scoping meetings in the towns of Tillamook, Astoria, Condon, Burns, and Prineville, Oregon from 17 through 21 June 2013. During this process scoping comments were received which helped shape the content of the analysis in the Draft Environmental Impact Statement (EIS). The publication of the Draft EIS was announced with a Notice of Availability (NOA), which appeared in the *Federal Register* on 24 July 2015, as well as public notices in *The Oregonian*, which appeared on 26 July and 10 August 2015. The Oregon ANG and OMD also provided press releases to other regional media outlets announcing the availability of the Draft EIS. Public and agency representatives were encouraged to provide written and oral comments during the public hearings (held in the same towns are the 2013 scoping meetings from 11 through 18 August 2015), or mail written comments on or before the comment period closing date of September 8, 2015. This appendix contains written comments on the Draft EIS received from federal, state, and local agencies, the general public, and Native Americans during the 60-day public comment period. Oral comments were also received during the public hearings; however, these comments were informal in nature and overlapped with written comments provided on the Draft EIS. All public comments (i.e., subject matter) have been fully addressed as required by Council on Environmental Quality (CEQ) regulations.

A broad variety of written comments on the Draft EIS were received, including 13 comments regarding Biological Resources, 12 comments regarding Land Use, and 14 comments regarding Airspace Management, as well as a number of comments addressing other resources areas. While all comments submitted were fully considered, only substantive comments were carried forward and responded to in this appendix. Substantive comments were addressed in a collective fashion in order to harmonize interpretation of the inputs and address the inputs in a reasonably efficient manner. Non-substantive comments – which were not responded to directly – are generally considered those comments that express a conclusion, an opinion, or a vote for or against the proposal itself, or some aspect of it; that only state a position for or against a particular alternative; or that otherwise state a personal

preference or opinion. Public and agency comments received were taken into consideration by the Air Force in its decision-making process. The following summarizes the Comment and Response Process.

Comment Receipt: Comments on the Draft EIS included written correspondence via U.S. Mail (letters), faxes, or emails, and oral testimony received during the public comment period. All written comments received during that period are included in the *Comments Received* section of Appendix B and a copy of the public hearing transcripts is also provided.

Comment Review: In accordance with 40 Code of Federal Regulations (CFR) 1503.4, comments were assessed and considered as follows:

- Each letter or e-mail was assigned a unique identification number. All submitted comments were then carefully reviewed.
- Within each comment letter or e-mail, substantive comments were identified and marked with brackets. Three criteria were used for determining substantive comments:
    1. The Proposed Action, conditions/location of an alternative, or other components of the Proposed Action was questioned.
    2. The methodology of the EIS (analysis and/or results) was questioned.
    3. The use, adequacy, or accuracy of data was questioned.
- All comments submitted were reviewed. In some cases, comments addressing similar issues were assigned the same response, or referred to responses provided to other comments.

Individually bracketed comments were assigned a number and assigned an appropriate response. These responses are organized by the primary resource area they address and consecutively by number. The responses to comments appear in the *Comment Responses* section of Appendix C.

Locating Comments: A directory begins on Page C-4 to locate commenters' names. As noted on the public displays, sign-in cards, comment forms, and copies of the Draft EIS and Executive Summary, providing their name in the EIS process meant that the commenter understood that their name and comment would be made a part of the public record for this EIS. An identification number was assigned to each comment letter and is labeled on the letter. All comments are organized according to these comment numbers in the *Comments Received* section.

The directory provides an alphabetical listing by last name of those who commented as well as a comment identification number. This is the number that was assigned to each comment letter.

Locating Responses to Comments: Individual responses to comments immediately follow the relevant comment letter. All substantive comments within each comment letter and oral comments from public hearings were assigned a comment response code, which are printed next to the brackets in the right margin of the page. Every bracketed comment has a corresponding response, intended to be read along with the comment it addresses.

The responses refer to both the Draft EIS and Final EIS documents, as appropriate. For example, if the commenter suggests a deficiency in the Draft EIS document, the response may refer to the Draft EIS for clarification. If the Final EIS includes amended information, including mitigations, the reader will be directed to that section of the Final EIS.

Public and agency involvement is an important part of the NEPA process, and all comments, whether bracketed or not, have been taken into consideration by the Air Force in its decision-making process.

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Directory for Individual Comments

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
620 SW Main Street, Suite 201
Portland, Oregon 97205-3026

IN REPLY REFER TO:
9043.1
ER15/0419

September 8, 2015

Kevin Marek, NGB/A7AM
Shepperd Hall
3501 Fetchet Avenue
Joint Base Andrews, MD 20762-5157

Dear Mr. Marek:

The U.S. Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for the Proposed Establishment and Modification of Oregon Military Training Airspace. The U.S. Fish and Wildlife Service (Service), one of the Department's component bureaus, provided comments during the scoping for the DEIS. While much of the information provided in the scoping for this document was incorporated into the DEIS, we still have concerns over the impact of low-level flights in the Juniper Low Military Operations Area (MOA) and, particularly, the proposed Juniper East Low MOA. We offer the following comments for use in developing the FEIS for this project.

Greater Sage-Grouse and Wildfire Threat

Greater sage-grouse (*Centrocercus urophasianus*) (sage-grouse) depend on a variety of shrub-steppe habitats throughout their life cycle and are considered obligate users of several species of sagebrush (e.g., *Artemisia tridentata* ssp. *wyomingensis* [Wyoming big sagebrush], *A. t.* ssp. *vaseyana* [mountain big sagebrush], and *A. t.* spp. *tridentata* [basin big sagebrush]). The primary threat to sage-grouse throughout the Proposed Action area is habitat fragmentation resulting from wildfire and the invasive annual grass conversion that often occurs after wildfire in low elevation sagebrush habitats.

DOI (Milchak) -1

Much of the area covered by the Proposed Action is occupied sage-grouse habitat and is in varying condition, but there are large areas that contain high levels of cheatgrass (*Bromus tectorum*) either in the understory of the sagebrush communities or in cheatgrass monocultures. Cheatgrass is an invasive annual grass that is found throughout much of our western rangelands; it outcompetes beneficial understory plant species and can dramatically alter fire ecology. The dominant species of sagebrush found in the action area must regenerate from seed if it is killed by fire. Cheatgrass is often able to take advantage of site resources earlier than sagebrush and other desirable perennial plant species, and thus it can dominate a site after a wildfire occurs. Sites dominated by annual grasses are unsuitable for sage-grouse. In addition, the continuous

fine fuel load tends to burn much more frequently, making it nearly impossible for sagebrush and other perennials to become reestablished.

In 2012, three large wildfires consumed nearly 10 percent of core sage-grouse habitat in Oregon. The fires burned through a variety of habitats in a wide range of conditions, but one of the primary drivers for these large fires was an increase in fine fuels (i.e., cheatgrass or other invasive annual grasses found throughout the sagebrush steppe). Similar large-scale losses occurred in Oregon in 2014 and along the Oregon/Idaho border in 2015. The DEIS dismisses information linking flare use to fires; however, the national fire occurrence database does not differentiate fires caused by flares (see page 3-110).

DOI (Milchak) -1 (cont.)

In the DEIS, the Oregon Air National Guard (Oregon ANG) states that "*Oregon ANG would restrict the use of flares in affected or proposed airspaces when the NFDRS rating rises to the level of extreme.*" The Department recognizes that the overall risk of wildfire from flare use is very low; however, due to the change in on-the-ground fuel conditions (especially increased concentrations of fine fuels), the remote location, the overall distance from fire-fighting resources, and the length of time a fire may burn prior to being reported, the potential does exist to lose sage-grouse habitat to accidental flare fires. For the FEIS, the Department recommends that the Oregon Air National Guard (ANG) analyze and address whether the wildfire risk associated with flare use would be reduced if the Oregon ANG restricted the use of flares within the proposed airspace when the NFDRS rating rises to the level of *High*, rather than *Extreme.*

Greater Sage-Grouse and Noise Threat

Male sage-grouse depend on acoustical signals to attract females to leks. If noise interferes with mating displays, and thereby female attendance, then males will not be drawn to leks, and the leks will eventually become inactive.

> The proposed action states: *Additionally, only 35 percent of those hours would be flown below 1,000 feet AGL. Consequently, maximum noise events resulting from direct aircraft overflights would be infrequent and of short duration. Additionally, in order to avoid impacts to the greater sage-grouse leks (i.e., aggregations of breeding males); the Oregon ANG would avoid greater sage-grouse core areas to the maximum extent practicable during the breeding season (i.e., 1 March to 31 May; Harrell 2008). Further, in the event that the Oregon ANG were to activate airspace over these core areas during the breeding season, flight altitudes would be restricted to 1,000 feet AGL or above over core areas within the Juniper Low MOAs, reducing the potential maximum exposure. Consequently, the Proposed Action may affect, but is not likely to adversely affect the greater sage-grouse.*

DOI (Milchak) -2

For the FEIS, the Department recommends that the Oregon ANG analyze the benefits associated with adding low density habitats, as identified by the Oregon Department of Fish and Wildlife in their *Greater Sage-Grouse Conservation Assessment and Strategy for Oregon* (Hagen 2011, beginning on page 80), to the 1,000 feet AGL restriction during breeding season to further avoid disturbance to lekking birds. As of 2014, there are approximately 51 occupied or occupied pending sage-grouse leks within the Juniper Low MOA. Of those, approximately 21 lie outside

of mapped core sage-grouse habitats. By adding mapped low density habitats, the area Oregon ANG operations would avoid all but two of these leks.

DOI (Milchak) -2 (cont.)

Golden Eagles and Noise/Disturbance Threat

Because management buffers have not been established for golden eagles (*Aquila chrysaetos*), the Service is applying the bald eagle (*Haliaeetus leucocephalus*) management guidelines. While there is little published empirical data on the impact of potentially-disturbing activities to golden eagles, the evidence suggests that golden eagles are more sensitive to disturbance than bald eagles. Although the Oregon ANG used the 1,000-foot bald eagle guidance buffer in the DEIS analysis, the Department is concerned that the Proposed Action is likely to result in disturbance to an unknown number of nesting golden eagles, especially during the early courtship and nesting season. Local golden eagle populations may indeed habituate to low-level overflights across the area in the long term, but, intense and sudden loud noise such as an F-15 flying over nesting cliffs at 500 feet will likely cause a reaction from some nesting golden eagles. Therefore, the Department recommends the Oregon ANG seek a programmatic eagle take permit from the Service for disturbance to golden eagles unless additional avoidance and minimization measures are adopted that make the risk of nest disturbance unlikely from the proposed activity. If Oregon ANG applies for a permit, then appropriate avoidance, minimization, and monitoring procedures would be a part of permit development.

As noted on pages 4-69 and 6-5 in the DEIS, the Oregon ANG has proposed three mitigation measures. Under the current regulations for the Bald and Golden Eagle Protection Act (Eagle Act), the Service has a threshold of "zero" for golden eagle take, including disturbance. Take occurring under an eagle permit would need to be mitigated in kind (i.e., loss of a bird would require conservation of a bird), and various mechanisms are available to achieve this mitigation. Therefore, the Department views the proposed mitigation in the DEIS as avoidance and minimization measures for take as opposed to compensatory mitigation that would meet the standards for permit issuance under the Eagle Act. While the intent of these measures is appropriate to minimize impacts, the future availability of annual monitoring data is uncertain, which means the measures might be unachievable. The Oregon Eagle Foundation, partially supported by the Service, recently completed five years of statewide golden eagle nest monitoring. Ongoing monitoring is not funded or planned. Much of the area in the proposed Juniper East Low MOA has been identified as a potential intensive monitoring area due to its long-term history of monitoring (primarily through Malheur National Wildlife Refuge personnel); however, there are no current commitments to continue such monitoring. Due to the uncertainty of providing annual nest status information, it will be very difficult to plan avoidance of specific nests. Therefore, avoidance could only be attained, and only in part, by assuming *all* nests are active and following the first measure to "establish buffer areas from surface to 1,000 feet AGL with a radius of 0.25 miles from mapped bald and golden eagle nests, and refrain from flying within these buffers from 1 January to 15 August." Upon application of these measures, the Service may be able to recommend that a permit is unnecessary.

DOI (Milchak) -3

Additional Comments

- The proper scientific name for western snowy plover is *Charadrius nivosus nivosus*. This should be corrected in the FEIS. DOI (Milchak) -4

- Table 3.3-2, on page 3-50, fails to include the Oregon Coast National Wildlife Refuge Complex. This should be corrected in the FEIS. DOI (Milchak) -5

- The DEIS states that impacts to wildlife will be short term and most animals will eventually acclimate to low-altitude flight activities (pages 4-66 through 4-69). The Department does not agree with this assertion. Wildlife varies tremendously in its tolerance for, and ability to acclimate to, anthropogenic disturbance such as an F-15 maneuvering at 250 knots and 500 feet AGL. While we recognize that the increased airspace will disperse disturbance across a greater area as the actual number of sorties or flight hours will remain the same, we recommend further avoidance of important habitats at critical times of the year, particularly during the lekking and nesting season for sage-grouse, any time the established fire danger is *High*, and during the nesting season for golden eagles, as noted above. DOI (Milchak) -6

- The DEIS states that the Juniper and Hart Mountain MOA Complex airspace has been expanded in the past to similar lateral dimensions, on a temporary basis, to support Sentry Eagle. The DEIS states that these temporary expansions are coordinated with the Federal Aviation Administration. Further expansion of the airspace, even temporarily, could have significant impacts to wildlife, particularly for migratory birds and waterfowl, especially further eastward expansion of Juniper and Hart Mountain MOA Complex towards Malheur Lake. DOI (Milchak) -7

We appreciate the opportunity to review and comment on the DEIS. If you have any questions on our comments please contact Mr. Jeff Everett, U.S. Fish and Wildlife Service, at (503) 231-6952. If you have any other questions or concerns, please feel free to contact me at (503) 326-2489.

Sincerely,

Allison O'Brien

Allison O'Brien
Regional Environmental Officer

Literature Cited

Hagen, C. 2011. Greater sage-grouse conservation assessment and strategy for Oregon: a plan to maintain and enhance populations and habitat. Oregon Department of Fish and Wildlife. Bend, Oregon. 207 pp.

FEDERAL GOVERNMENT AGENCIES

DOI (Milchak)-1: See Comment Response ODFW-1. A review of the fire history data in existing flare use areas is documented in Technical Report on Chaff and Flares, Technical Report No. 6, Flare Fire Risk Assessment (U.S. Air Force [USAF] 1995). The flare training areas examined covered a range of environments, both co-logically and in terms of management and regulations. In most areas, the percentage of fires caused by flares was unknown but usually considered to be low to nonexistent. Fires caused by training operations occur in both dry and temperate or humid environments and can occur during times of relatively low fire hazard conditions if ignition sources are present. In response to this comment, the Air National Guard (ANG) has reviewed publicly available data, including observed wildfire danger data maintained by the Wildland Fire Assessment System (2015), maintained by the U.S. Forest Service (USFS) Rock Mountain Research Station. Further, the ANG has prepared Appendix I, *Wildfire Hazard Analysis* to further assess the need for and utility of additional restrictions on flare use. This analysis found that the potential for wildfire associated with flare use would be negligible under the implementation of the Proposed Action. Additional restrictions on flare use based on wildfire danger rating would not further reduce less than significant impacts associated with wildfire risk and would limit the ability of the Oregon ANG to perform realistic training operations, such that the Proposed Action would not meet its intended purpose and need described in Section 1.5, *Purpose and Need for the Proposed Action*. Therefore, the special procedures associated with the National Fire Danger Rating System previously listed in the Draft EIS have been removed from Section 4.7., Section 4.8., and Section 6 of the Final EIS. However, in order to minimize wildfire risks while also accomplishing mission objectives, the Oregon ANG will continue to prohibit flare use below 5,000 feet above ground level (AGL) per Air Force Instruction (AFI) 11-2F-15V3 KF CH8.

DOI (Milchak)-2: See Comment Response Oregon Natural Desert Association (ONDA)-5. As described in *Greater Sage-Grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and Enhance Populations and Habitat* (Oregon Department of Fish and Wildlife [ODFW] 2011) and summarized in Section 3.4 and Section 4.4, *Biological Resources*, "Core Areas" are high priority locations for protection from habitat loss and fragmentation, while "Low Density Areas" are areas for which such losses may be of less consequence. Low Density Areas beneath the proposed Juniper East Low Military Operations Area (MOA) expansion area would include less than 20 square miles. The majority of the Low Density Habitat identified in *Greater Sage-Grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and Enhance Populations and Habitat* (ODFW 2011) is located under the existing Juniper Low MOA. Implementation of the Proposed Action would further reduce annual flight operations

over these areas from approximately 243 hours to 204 hours[1]. Consequently, the Proposed Action would not have significant impacts on the greater sage-grouse (See Table 4.2-1 in Section 4.2, *Noise* and Appendix E, *Noise*).

DOI (Milchak)-3: To address U.S. Fish and Wildlife (USFWS) concerns, special procedures were developed to avoid disturbances of bald and golden eagles. These procedures, which are described in Section 4.4, *Biological Resources* and Section 6, *Special Procedures*, include the establishment of seasonal buffer areas from the ground surface to 1,000 feet AGL within a radius of 0.25 miles from mapped bald and golden eagle nests. Flight operations would not occur within these buffer areas from January 1 to August 15. The Oregon ANG would assume that all mapped nests depicted in Figure 3.4-2 of the Final Environmental Impact Statement (EIS) are active and would follow all special procedures to avoid these nests. The Oregon ANG will coordinate annually with the USFWS to update the nesting buffer areas and to revise avoidance areas for bald and golden eagles beneath the Juniper Low MOA.

Consultation with the USFWS has completed. USFWS concurrence letter is located in Appendix B, *Public Involvement and Agency Coordination*. However, given the implementation of the special procedures described in Section 4.4, *Biological Resources* Section 6, *Special Procedures* and clarified here, the National Guard Bureau (NGB) does not anticipate seeking a programmatic eagle take permit.

DOI (Milchak)-4: ***The Final EIS has been clarified as a result of this comment.*** The correct scientific name for western snowy plover was confirmed and revised globally throughout Final EIS, including within Section 3.4 and Section 4.4, *Biological Resources.*

DOI (Milchak)-5: ***The Final EIS has been clarified as a result of this comment.*** The Oregon Coast National Wildlife Refuge (NWR) Complex consists of six NWRs along the Oregon Coast, including Three Arch Rocks, Oregon Islands, Cape Meares, Bandon Marsh, Nestucca Bay, and Siletz Bay. Appendix G, *Land Use and Land Management* specifically describes Oregon Island, Cape Meares, Nestucca Bay, and Siletz Bay NWRs in detail. These areas are also shown in Figure 3.3-1 within Section 3.3, *Land Use and Visual Resources*. The Final EIS does not describe Bandon Marsh as it is not located beneath the footprint of the proposed Eel MOA Complex. The Oregon Coast National Wildlife Refuge Complex, including Three Arch Rocks was identified specifically by name in the Final EIS (refer to Table 3.3-1 in the Final EIS and Appendix G, *Land Use and Land Management*).

[1] Total number of flight hours in Juniper Low and the proposed Juniper East Low MOA is not additive. Each MOA is assessed separately for impact. The hours provided in the comment responses and in Table 2-3 of the Final EIS, reflect the projected actual numbers within the proposed airspace.

DOI (Milchak)-6: Refer to Comment Responses DOI (Milchak)-1, DOI (Milchak)-2, and DOI (Milchak)-3.

DOI (Milchak)-7: The proposed airspace would not be expanded beyond the footprint described in Section 2, *Description of Proposed Action and Alternatives.*

United States Department of the Interior

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IN REPLY REFER TO:
9043.1
ER15/0419

September 11, 2015

Kevin Marek, NGB/A7AM
Shepperd Hall
3501 Fetchet Avenue
Joint Base Andrews, MD 20762-5157

Dear Mr. Marek:

On September 8, 2015, the U.S. Department of the Interior (Department) submitted comments on the Draft Environmental Impact Statement (DEIS) for the Proposed Establishment and Modification of Oregon Military Training Airspace. After additional review of the DEIS, we are providing supplemental comments, because the Proposed Action area might have impacts on several parks managed by the National Park Service (NPS), one of the Department's component bureaus.

National Park System units within in the vicinity of the Proposed Action area include Lewis and Clark National Historical Park, John Day Fossil Beds National Monument, Oregon Caves National Monument, and Crater Lake National Park. The proposal specifically includes additions to existing airspace and new airspace located over John Day Fossil Beds National Monument, as well as Lewis and Clark National Historic Trail, Oregon National Historic Trail, and California National Historic Trail. The Department is concerned with the potential of the proposed actions to adversely affect soundscapes and visitor experience. We offer the following supplemental comments for use in developing the FEIS for this project.

Lewis and Clark National Historic Trail

The Proposed Eel Military Operations Area (MOA) and Eel High Air Traffic Control Assigned Airspace (ATCAA), Eel A and Eel B, are located along the Lewis and Clark National Historic Trail (L&C Trail). Congress established the L&C Trail in an amendment to the National Trails System Act in 1978 [16 U.S.C. § 1244(a)(6)]. The NPS administers the L&C Trail and is charged under this act with the identification and protection of the historic route, remnants, and artifacts of the Lewis and Clark Expedition for public use and enjoyment.

DOI (O'Brien) -1

The L&C Trail extends from Wood River, Illinois to the mouth of the Columbia River in Oregon, following the outbound and inbound routes of the Lewis and Clark Expedition. In the project area, the Corps of Discovery (Corps) explored both the north and south shores of the

Columbia River estuary, around Young's Bay, up the present Lewis and Clark River, and along the Pacific Coast. The Corps built a fortification and quarters named Fort Clatsop with the aid of local tribes to spend the winter of 1805-1806. Fort Clatsop is memorialized at present day Lewis and Clark National Historical Park (LEWI).

On page 3-44, in Figure 3.3-2, the legend lists "Historic and Senic [sic] Trail" under "Sensitive Land Uses and Visual Resources." However, the L&C Trail is not identified on the map. This omission should be corrected in the FEIS. If GIS data is needed, please contact Rachel Daniels at rachel_daniels@nps.gov or (402) 661-1934.

DOI (O'Brien) -1 (cont.)

On page 3-45, in Table 3.3-1, National Historic Trails are not listed in the Sensitive Land Use and Visual Resource Areas beneath the Proposed Eel MOA/ATCAA table. This omission should be corrected and the L&C Trail should be listed in this table in the FEIS.

According to the DEIS, the noise generated by aircraft flights appears to be the primary impact that will affect resources and visitor experiences at L&C Trail and LEWI. Table 4.2-1 estimates that noise level thresholds in Eel A and Eel B may reach 65 dB SEL during single events at a rate of 0.4 per day. Although this impact is less than significant, it is important to acknowledge and mitigate, if possible.

Soundscapes and Visitor Experience

The NPS manages, protects, and restores the acoustic and photic resources in all units of the National Park System. The NPS mission to conserve park resources and values unimpaired is a different standard than significance as defined by the Federal Aviation Administration (FAA) and other agencies. In recognition of the agencies' differences in mission and acknowledgement that special consideration needs to be given to the evaluation of noise impacts on noise sensitive areas, it is imperative to provide relevant new information in the FEIS for park managers to be able characterize the noise impacts from the proposed action and alternatives. Only then can NPS make determinations about potential or actual external impacts to park resources, values, and visitor experience.

DOI (O'Brien) -2

The noise analysis in the DEIS does not fully characterize the effects of the proposed action on visitors to units of the National Park System. Given the size and configuration of the proposed MOAs, as well as the sound levels generated by the aircraft using the MOAs, it is likely that most of the annual operations would be audible within national park units in Oregon.

American National Standards Institute (ANSI) S12.9, "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 4: Noise Assessment and Prediction of Long-term Community Response," details a methodology for evaluating community response to noise. The method described in this standard is based on the Schultz curve for community response and provides the estimated percentage of a population that would be highly annoyed as a function of adjusted day-night sound level.

In quiet rural settings where there is a greater expectation for, and value placed on, peace and quiet, the method described in ANSI 12.9 / Part 4 adjusts the sound level input up by 10 dB. In

many units of the national park system there is a greater expectation of quieter conditions, which would therefore merit application of the 10 dB increase. John Day Fossil Beds National Monument is a particularly quiet park unit located within the area of potential effect. It is far from urban, industrial or transportation sound sources and is a place where visitors have secluded opportunities to experience natural sounds in an unimpaired condition. The sounds of civilization are generally confined to developed areas and specific hours of the day. Any addition to the ambient sounds levels from military overflights could unacceptably impact visitor experience, wildlife behaviors and the overall acoustic environment of the park.

DOI (O'Brien) -2 (cont.)

The noise analysis in the FEIS should incorporate the methodology provided in ANSI 12.9 / Part 4, including application of a 10 dB increase to estimated sound levels, in order to evaluate the environmental consequences of the proposed action specifically on park visitors, and to better support the conclusions reached in the DEIS.

Oregon and California National Historic Trails (NHT)

Although the Oregon National Historic Trail and the California National Historic Trail may be adversely affected by the proposed undertaking, the DEIS does not address the potential effects on cultural resources associated with these NHT resources, and fails to recognize that the Oregon NHT is within the area of potential effect. This omission should be corrected in the FEIS.

The Oregon NHT runs roughly east-west through the greater northern half of the project area, but is crossed specifically by the Redhawk A MOA/ATCAA, Redhawk B MOA/ATCAA, and the Redhawk C MOA/ATCAA. The Oregon NHT and the cultural resources associated with it are afforded consideration under the National Historic Preservation Act (NHPA), and given additional protection under the National Trails System Act (NTSA). The FEIS should provide further analysis to consider these resources in order to adequately consider the potential project effects on the Oregon National Historic Trail.

DOI (O'Brien) -3

The California NHT runs roughly east-west through the southern portion of the project area, but is crossed specifically by the Hart E MOA and the Hart F MOA. The California NHT and the cultural resources associated with it are afforded consideration under the National Historic Preservation Act (NHPA), and given additional protection under the National Trails System Act (NTSA). The FEIS should provide further information about the potential project effects on the California National Historic Trail.

NHTs are cultural landscapes comprised of physical remnants, viewsheds, and soundscapes. The analysis and discussion of potential project effects on NHTs should clearly address each of these three attributes.

Also, for future reference, the proposed Redhawk MOA/ATCAA (A, B, and C) project areas are also in the vicinity of the routes that are under consideration for possible addition to the existing NHTs.

Additional Comments

- On page 3-79, line 29, in the phrase "significant persons in or past", "or" should be changed to "the" or "our". DOI (O'Brien) -4

- On page 3-79, lines 4-8, the text reads, "Cultural resources represent and document activities, accomplishments, and traditions of previous civilizations and link current and former inhabitants of an area."

  The text is problematic because, in reality, defined cultural resources are not limited to representations of "previous civilizations." In the FEIS, the definition of cultural resources should be defined more correctly as "physical evidence or place of past human activity: site, object, landscape, structure; or a site, structure, landscape, object or natural feature of significance to a group of people traditionally associated with it." DOI (O'Brien) -5

We appreciate the opportunity to review and comment on the DEIS. If you have any questions regarding our comments, please contact one of the following NPS representatives:

- Dan Wiley, Chief of Resources Stewardship, Lewis and Clark National Historic Trail at (402) 661-1830 or www.nps.gov/LECL

- Brent Lignell, Environmental Protection Specialist, Natural Sounds & Night Skies Division, Overflights Program at (970) 225-3580 or www.nps.gov/nsnsd

- Lee Kreutzer, Cultural Resources Specialist/Archeologist, National Trails Program at (801) 741-1012x118 or www.nps.gov/ntir/

If you have any other questions or concerns, please feel free to contact me at (503) 326-2489.

Sincerely,

Allison O'Brien

Allison O'Brien
Regional Environmental Officer

DOI (O'Brien)-1: ***The Final EIS has been clarified as a result of this comment.*** This was an inadvertent omission. However, this clarification does not affect the underlying environmental analysis. The Lewis and Clark Historic Trail System has been added to the land use figures (i.e., Figure 3.3-2, 3.3-4, and 3.3-6) and is specifically referred to by name in Section 3.3.2.1 and 4.3.2.1 in the Final EIS as well as in Appendix G, *Land Use and Land Management*. Nevertheless, the impacts described for the footprint of the proposed Eel MOA Complex – beneath which the Lewis and Clark Historic Trail System is located – would remain as described in the Final EIS. As discussed in Comment Response ONDA-9, noise impacts are described in Table 4.2-1 within Section 4.2, Noise of the Final EIS. In terms of onset rate-adjusted monthly day-night average, A-weighted sound level (L_{dnmr}), the accepted metric for land use compatibility guidelines beneath Special Use Airspace (SUA), noise experienced beneath the proposed Eel MOAs would be 35.0. These noise levels are far less than the Federal Aviation Administration's (FAA's) 65 day night average sound level (DNL) threshold. Further, noise levels would remain under 55 DNL, which is the U.S. Environmental Protection Agency's (USEPA's) recommended noise threshold for residential areas, farms, and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use (USEPA 1974; refer to Section 4.2, *Noise*).

Other important concerns regarding aircraft operations within SUA include the number, intensity, and duration of individual noise events that contribute to the L_{dnmr}. As described in Section 4.2, *Noise* the number of events above 65 decibel (dB) Sound Exposure Level (SEL) would be less than 0.5 per day in all of the proposed MOAs. In summary, average noise levels would remain far below 55 DNL and events above 65 dB SEL would be very infrequent. Therefore, noise-related impacts to the Lewis and Clark Historic Trail System would be less than significant.

DOI (O'Brien)-2: Individual units within the National Park Service (NPS) system are listed and discussed in Appendix G, *Land Use and Land Management*. As described in Section 4.2, *Noise* of the Final EIS and Table 4.2-1, noise levels experienced beneath the proposed Eel MOAs and Redhawk MOAs would be 35.0 L_{dnmr}. Further, noise levels experienced beneath the newly established Juniper/Hart MOAs would be less than 40 $L_{dnmr,}$ and noise levels beneath the existing Juniper/Hart MOAs would be slightly reduced relative to existing conditions. (L_{dnmr} is the accepted metric for land use compatibility guidelines beneath SUA and represents the average for an entire month, utilizing the busiest month for modeling purposes.) Under the Proposed Action, none of the areas beneath the affected or proposed airspaces would experience noise levels greater than or equal to the FAA's 65 DNL threshold. Further, noise levels would remain under 55 DNL, which is the USEPA's recommended noise threshold for residential areas, farms, and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use (USEPA 1974; refer to Section 4.2, *Noise*). Even when adding 10 dB to estimated sound levels, per ANSI 12.9 / Part 4, the noise levels would remain below the FAA's 65 DNL threshold and

the 55 DNL threshold recommended by the USEPA for residential areas, farms, and other outdoor areas where quiet is a basis for use.

Other important concerns regarding aircraft operations within SUA include the number, intensity, and duration of individual noise events that contribute to the L_{dnmr}. Consequently, L_{dnmr} is generally supplemented with metrics describing instances of unpredictable, discrete short-term noise events that produce long-term average L_{dnmr}. Neither the FAA nor the USAF requires evaluation of SEL, but the Oregon ANG has elected to evaluate SEL for this analysis in an attempt to more fully and transparently address public concerns. As described in Section 4.2, *Noise* the number of events above 65 dB SEL would be less than 0.5 per day in all of the proposed MOAs. In summary, average noise levels would remain far below 55 DNL and events above 65 dB SEL would be very infrequent.

DOI (O'Brien)-3: ***The Final EIS has been clarified as a result of this comment.*** The Oregon National Historic Trail and the California National Historic Trail have been added to the land use figures (i.e., Figure 3.3-2, 3.3-4, and 3.3-6) and are specifically referenced by name in the Final EIS (refer to Section 3.3.2.1 and 4.3.2.1 of the Final EIS as well as Appendix G, *Land Use and Land Management*). It appears that segments of the National Historic Trails and/or Proposed Routes identified in the Trails Feasibility Study pass beneath portions of the proposed Redhawk and Juniper/Hart MOA Complex (NPS 2015). However, as described in Section 4.5, *Cultural Resources* the Proposed Action would not result in any ground disturbing activities that could directly disturb archaeological or other cultural resources, such as the Oregon and California National Historic Trails. Indirect impacts to these resources could include potential noise- or visual resources-related impacts. These issues are addressed in Comment Responses ONDA-3 and ONDA-12. The Redhawk MOA Complex and the Hart E and Hart F MOAs would be established with a floor of 11,000 feet above mean sea level (MSL). Noise levels experienced under the Redhawk MOA would be 35.0 L_{dnmr} and noise levels beneath the Hart E and Hart F MOAs would be 36.9 L_{dnmr} and 35.0 L_{dnmr}, respectively. Under the Proposed Action, none of the areas beneath the affected or proposed airspaces would experience noise levels greater than or equal to the FAA's 65 DNL threshold. Further, noise levels would remain under 55 DNL, which is the USEPA's recommended noise threshold for residential areas, farms, and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use (USEPA 1974; refer to Section 4.2, *Noise*).

With regard to potential visual resources impacts, the addition of increased or newly introduced overflights and the occurrence of periodic aircraft-generated noise and aircraft contrails above scenic and otherwise sensitive land use settings may be perceived as annoying or intrusive. However, any notable increase in aircraft activity and associated contrails would, by their nature, be transitory and short-term visual intrusions that would not block or obstruct views of any visual resource from any vantage point. Ultimately, the airspace expansion would result in a larger volume of

designated SUA available for aircraft maneuvering, resulting in a broader geographic distribution of training sorties and a reduced probability of visual and noise effects experienced at any individual location below the airspace. Additionally, the activation time of currently established airspace areas is expected to decrease under the Proposed Action, as more training could be accomplished in a larger airspace, shortening the required time of use (refer to Comment Response ONDA-3).

Consequently, potential impacts to the Oregon National Historic Trail and the California National Historic Trail would be less than significant. Additional consultation with the Oregon, Washington, and Nevada SHPOs would not be required as the Area of Potential Effect (APE) for the initial consultation efforts included all of the land area and associated historic resources within that area.

DOI (O'Brien)-4: ***The Final EIS has been clarified as a result of this comment.*** This typographical error was corrected in Section 3.5.1.1 of the Final EIS.

DOI (O'Brien)-5: ***The Final EIS was clarified as a result of this comment.*** This definition was revised as suggested in Section 3.5.1.1 of the Final EIS.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
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OFFICE OF
ECOSYSTEMS, TRIBAL AND
PUBLIC AFFAIRS

September 8, 2015

Mr. Kevin Marek
NGB/A7AM, Shepperd Hall
3501 Fetchet Avenue
Joint Base Andrews, Maryland 20762-5157

Dear Mr. Marek:

The U.S. Environmental Protection Agency has reviewed the Oregon Air National Guard Draft Environmental Impact Statement for Proposed Establishment and Modification of Oregon Military Training Airspace. We are submitting comments in accordance with our responsibilities under the National Environmental Policy Act and Section 309 of the Clean Air Act. Thank you for inviting our participation in this NEPA process.

The Air National Guard proposes to modify, expand, and establish new military training airspace over coastal, north central, and eastern Oregon, and the Pacific Ocean, as well as small portions of northwestern Nevada and southwestern Washington. The purpose of these actions is to provide adequately sized and appropriately configured airspace within close proximity to Oregon ANG flying units to support advanced 21st century air-to-air tactical fighter technologies and training mission requirements. Proposed airspace actions include:

- Reconfiguration, vertical and horizontal expansion, and conversion of the W-570 Warning Area and Bass/Bass South Air Traffic Control Assigned Airspaces (ATCAAs) to the W-570 Warning Area over the Pacific Ocean;
- Vertical and horizontal expansion of the Eel Military Operations Area (MOA) Complex over portions of Clatsop, Tillamook, Yamhill, and Lincoln counties in coastal Oregon and over Pacific County in Washington;
- Vertical modification and horizontal expansion of the Juniper/Juniper Low/Hart MOA Complex in eastern Oregon over portions of Harney County in Oregon and Humboldt and Washoe counties in northwestern Nevada; and
- Establishment of the Redhawk MOA Complex, a new 6,500 square mile MOA/ATCAA above portions of seven counties in central Oregon including Sherman, Gilliam, Morrow, Grant, Wheeler, Jefferson, and Wasco counties (11,000 ft MSL to 51,000 MSL/FL 510).

Based on the information provided, we are rating the Draft EIS as EC-2, Environmental Concerns, Insufficient Information. An explanation of the EPA rating system is enclosed. Our environmental concerns and recommendations for additional information include the following:

- The proposed action would expand military training activities over most of the remaining wild and scenic lands and waters of Oregon and Northwestern Nevada. In light of broad interest and concern regarding this and other recent proposed military training and testing expansions, we believe the public would benefit from engagement in a more comprehensive, programmatic dialogue regarding

the nature and extent of military training and testing expansions throughout the Pacific Northwest, other Western states and Alaska.

- The proposed Juniper East Low expansion area (500 ft AGL to 11,000 MSL) would be over the Malheur National Wildlife Refuge, which would result in potentially serious noise impacts and high bird strike risk in one of the most important habitat areas for migratory birds and other wildlife in the Northern Great Basin.[1]
- The proposed action would increase disturbance and risk of fire from use of flares in prime habitat for greater sage grouse, of which hundreds of thousands of acres have been lost to fire in recent years.
- Use of chaff would occur throughout proposed expansion areas, resulting in dispersion of a non-biodegradable pollutant within the aquatic and terrestrial environments of all affected areas, including wilderness, wildlife refuges, wild and scenic rivers, parklands, areas of critical environmental concern, and open marine waters.
- We believe that the cumulative effects assessment does not sufficiently analyze and convey how the permanent establishment and expansion of the proposed military training airspaces would cumulatively affect specific communities in areas already affected by commercial, general, and military aircraft and other noise. In addition, it does not convey the cumulative effects of the proposed action together with multiple other stressors upon specific wildlife species and populations, such as greater sage grouse or other at risk species.
- The extent to which marine mammals, birds, and other marine life would potentially be affected by the proposed action within the W-570A warning area (ocean surface to 50,000 ft MSL) and the proposed lowering of W-570B and W-570D areas (1,000 ft MSL to 50,000 ft ML) is not addressed.
- The EIS needs to provide information regarding the feasibility of implementing the new special procedures and airspace restrictions that would need to be tracked and observed by military pilots, air traffic controllers, and commercial and general aviation pilots, including discussion of accuracy and margin of error.

Our enclosed detailed comments provide further discussion of these issues.

We appreciate the opportunity to provide comments and invite you to contact us with any questions you may have. I can be reached at (206) 553-1601 or via electronic mail at reichgott.christine@epa.gov, or you may contact Elaine Somers at (206) 553-2966 or via electronic mail at somers.elaine@epa.gov.

Sincerely,

Christine B. Reichgott

Christine B. Reichgott, Manager
Environmental Review and Sediment Management Unit

Enclosures

[1] http://www.fws.gov/refuge/Malheur/about.html. The Malheur NWR constitutes a small percentage of the Northern Great Basin's total acreage but is a very important source of wildlife habitat relative to other portions of the Northern Great Basin. The refuge represents a crucial stop along the Pacific Flyway and offers resting, breeding, and nesting habitat for hundreds of migratory birds and other wildlife. Many of the species migrating through or breeding there are priority species in national bird conservation plans.

U.S. Environmental Protection Agency
Detailed comments on the
Oregon Air National Guard Proposed Establishment and Modification
of Oregon Military Training Airspace Draft EIS

Context and scope of the analysis

The proposed expansion of Oregon Air National Guard military training airspace is one of many recent and current proposed air, land, and sea military training and testing expansions in the Pacific Northwest and Alaska. The Pacific Northwest expansions involve Pacific coastal areas of Washington, Oregon, (and California), inland national forests, shrub steppe habitat, wilderness and other wildlands, national parkland, and wildlife refuges.[2] These areas encompass highly sensitive, biologically diverse, critically important habitats for native terrestrial, aquatic, and marine species. The training and testing expansions also affect communities that, together with these high value public lands and recreation areas, are integral to the quality of life in the Pacific Northwest. USEPA-1

The Draft EIS states that the need to provide realistic training and testing of advanced technological warfare systems has given rise to these expansions, which is a change from past training operations that were mainly on-base and in nearby designated air space. The effects of these military training and testing expansions are being analyzed in various separate NEPA documents, some of which are semi-programmatic in nature, but none of which provide a complete picture of proposed actions on a regional scale. Recent public comment period extensions for various NEPA analyses[3] indicate that these expansion activities are of interest to many. To improve communication and disclosure, it would be beneficial to give an overview of the broader context and extent of these changes and to conduct outreach that ensures meaningful participation for the affected public.

Recommendation: We recommend that this and other NEPA documents discuss the programmatic origin, rationale, geographic extent and general effects of these expansions, explain how the specific proposed action and NEPA analysis fit within the broader program, and discuss any reasonably foreseeable or potential future actions and their anticipated effects.

Juniper/Hart MOA Complex; Juniper East Low expansion area

Our greatest concerns involve the proposed Juniper East Low MOA expansion (500 ft AGL to 11,000 MSL). This MOA would be over the Malheur National Wildlife Refuge, which would result in potentially serious noise impacts and high bird strike risk in one of the most important habitat areas for USEPA-2

[2] Expansion activities include but are not limited to: US Navy NW Training and Testing (SEIS/OEIS); Oregon ANG Training Airspace Establishment and Modification; Expansion of EA-18G Growler Airfield Operations and fleet at NAS Whidbey Island; PNW Electronic Warfare Range, Olympic Peninsula; Northwest Aviation Operations Off-base Helicopter Training Areas for JBLM, WA; Land-Water Interface Surface Pier Extension at Naval Base Kitsap Bangor; Explosives Handling Wharf; Naval Weapons Training Facility Boardman; Coast Guard Transit Protection System Pier and Support Facilities; Overwater US Army/Navy and National Guard helicopter exercises in the Strait of Juan de Fuca and along the Pacific Coast; US Army Noise Assessment for Test Launches of the Reduced Range Practice Rocket at JBLM, WA. In Alaska: Gulf of Alaska Navy Training Activities.

[3] Examples include: PNW Electronic Warfare Range EA; Establishment of Helicopter Training Areas EA Scoping; EA-18G Growler Expansion EIS.

migratory birds and other wildlife in the Northern Great Basin.[4] We note that the recorded bird-strike occurrences are substantially higher for the 173 Fighter Wing (Klamath Falls) than for the 142 Fighter Wing (Portland): 61 vs. 28 incidents.[5] It is likely that the higher incidence of bird-strike is due to (1) the 173 FW predominant use of the Juniper Low MOA, (2) use of the Juniper Low MOA at 500 AGL, and (2) the proximity to Malheur NWR and its importance in the Pacific Flyway. With the proposed Juniper East Low MOA expansion, it would be reasonable to expect that the bird-strike incidence would substantially increase. This is because the proposed Juniper East Low MOA would directly affect the Malheur NWR airspace between 500 AGL and 11,000 MSL. Bird migrations occur within the full range of these elevations.[6]

USEPA-2 (cont.)

The noise impacts from low overflights would also be the most intense of any proposed expansion area at Lmax 116 dB, which constitutes a substantial impact in an area that is managed as a refuge for birds and other wildlife. The DEIS discusses physical effects of noise on livestock, but not on birds or other wildlife, particularly with respect to potential hearing loss, and disturbance during feeding, resting, nesting and rearing of young potentially leading to predation and other lethal and sub-lethal effects from single and repeated events. These impacts would be new to the Refuge, and would occur somewhat randomly in time and place but consistently and indefinitely into the future.[7]

USEPA-3

Use of chaff. In addition to bird strikes and loud noise events, the use of chaff and flares are of concern within the Juniper/Hart MOA complex, particularly within the proposed Juniper East Low expansion area. Chaff,[8] which consists of small, extremely fine fibers of aluminum-coated glass that disperse widely when ejected from aircraft, is most confined or concentrated in distribution when ejected from a low-altitude release in calm conditions.[9] Low altitude flights currently occur in W-570 and in Juniper Low MOA. They would be expanded to Juniper East Low under the proposed action.[10] The USAF study (1997) referenced in the DEIS states that "adverse effects to sensitive aquatic organisms may be possible in certain small confined water bodies. Freshwater aquatic environments are potentially more sensitive to chemicals released from chaff than terrestrial environments because (1) dissolution of materials occurs faster in water than on land; (2) chemicals are more mobile and more available to organisms; and (3) the thresholds of toxicity tend to be lower for sensitive aquatic species." The Malheur NWR includes Malheur, Hart, and Mud Lakes, used by waterfowl, shorebirds, passerines, raptors, and other wildlife, which would be subject to chaff deposition, dissolution, and decomposition.

USEPA-4

[4] http://www.fws.gov/refuge/Malheur/about.html. The Malheur NWR constitutes a small percentage of the Northern Great Basin's total acreage but is a very important source of wildlife habitat relative to other portions of the Northern Great Basin. The refuge represents a crucial stop along the Pacific Flyway and offers resting, breeding, and nesting habitat for hundreds of migratory birds and other wildlife. Many of the species migrating through or breeding there are priority species in national bird conservation plans.

[5] Draft EIS, p. 3-109

[6] Draft EIS, p. 3-106

[7] Draft EIS, p. 5-3

[8] The principal components of chaff are aluminum, silica glass fibers (silica dioxide, aluminum oxide, calcium+magnesium oxide, boron oxide, sodium+potassium oxide, iron oxide), stearic and palmitic acids. It also contains numerous trace metals and elements (USAF 1997).

[9] Draft EIS, p. 3-114

[10] However, chaff and flares would be used in all MOAs and proposed expansion areas.

The most recent study on the environmental effects of chaff[11] focuses on the toxicological effects, but states "there is no data on the re-suspension of chaff fibers and little is known about the breakdown of chaff under relevant conditions." It lists seven questions that still need to be addressed regarding deposition, resuspension, emissions, concentrations, and inhalation risks of chaff. These questions are particularly relevant to the Juniper/Hart MOA Complex and its proposed expansion areas, which are arid, open, and windy. USEPA-4 (cont.)

While the risks are not fully studied, based on lessons learned from the legacies of lead, selenium, metals, and other pollutants affecting wildlife refuges, and the known inhalation hazards of friable asbestos, fiberglass insulation, and similar substances, broadcast dispersal of chaff in pristine wilderness areas, such as Malheur NWR, appears risky and probably unwise. We recommend avoiding the use of chaff for training activities and replacing it with a biodegradable substitute.

Use of flares. Even though Oregon ANG has set a conservative floor of 5,000 ft AGL for flare use, we remain concerned about the potential for fire, particularly in arid environments. The Oregon Greater Sage Grouse Final EIS states, "Wildfire has been identified as one of the primary factors linked to loss of sagebrush-steppe habitat and corresponding population declines of greater sage grouse (Connelly and Braun 1997; Miller and Eddleman 2001). While fire is a naturally occurring disturbance in the sagebrush steppe, the incursion of nonnative annual grasses has facilitated an increase in mean fire frequency that can preclude the opportunity for sagebrush to become re-established…Within the Great Basin, the first five priority areas of conservation were singled out for the initial round of assessments because fire was identified as a primary threat to greater sage grouse habitat and the first phase of these assessments were completed in March of 2015." This primary concern regarding fire from use of flares would apply to all sagebrush steppe habitat in Oregon and northwestern Nevada affected by the Oregon ANG proposed action. USEPA-5

Recommendations:

- Because of the potential level of impacts, we believe Alternative D (no expansion of Juniper/Hart MOA Complex) or removal of the Juniper East Low expansion area from the proposed action would best protect resources in that area.
- Avoid use of flares in the Juniper/Hart MOA and its associated expansion areas, and in any airspace over lands where the fire danger is rated above moderate (i.e., rated as high, very high, or extreme).
- Avoid the use of chaff, particularly in any low airspace MOAs, and replace it with a biodegradable alternative.

Special procedures

More information is needed to clarify how Oregon ANG pilots will successfully implement the many flight restrictions in time and space that are detailed in the Special Procedures. These include: USEPA-6

- avoiding sage grouse leks and core areas during the breeding season (March 1 to May 31);
- avoiding overflights at low altitudes to the maximum extent practicable consistent with AFI 13-201 and Air Education and Training Command Supplement 12-201 (e.g, National Marine

[11] Farrell and Siciliano, 2005, Environmental Effects of Radio Frequency Chaff Released during Military Training Exercises: A Review of the Literature.

Sanctuaries, National Wildlife Refuges, farms and ranches, nesting sites, towns, recreation areas, etc.), and avoiding noise sensitive locations[12] beneath the proposed Juniper East Low MOA;
- avoidance of the seasonal buffer areas from surface to 1,000 ft AGL with a radius of 0.25 mile from mapped bald and golden eagle nests from January 1 to August 15;
- use of flares no lower than 5,000 ft AGL;
- no use of flares in extreme fire danger areas; emergency fuel dumps allowed only above 10,000 ft AGL and over unpopulated areas;
- avoiding wind farms;
- following bird-strike (BASH) plans; and
- relying upon visual avoidance of other aircraft, birds, and other hazards while flying 4th generation advanced technology aircraft at subsonic speeds of 20 nautical miles per minute and in W-570 at supersonic speeds as needed for training activities.

USEPA-6 (cont.)

Recommendation: The EIS should discuss the feasibility and success rate of implementing all of these procedures, and any mechanisms to ensure or facilitate implementation. Similarly, the EIS should discuss how Air Traffic Controllers would feasibly implement and track the additional complexities posed by the proposed action.

Cumulative effects

The cumulative effects analyses are brief discussions of airspace management, noise, land use and visual resources, biological resources, and safety. These discussions tend to focus upon impacts that occur within airspace only and do not convey the full array of stressors that affect populations of concern. For example, a cumulative effects assessment for biological resources could focus upon greater sage grouse. The analysis should be conducted within a context that acknowledges and accounts for past, present, and reasonably foreseeable human disturbance, habitat loss, alterations, degradation, and a steadily increasing number and type of disturbances and mortality sources[13], including the proposed action.

USEPA-7

Recommendation: Focus cumulative effects assessments on specific resources of concern, as discussed above.

Tribal consultation

While the Draft EIS states that as of March 2014, no concerns had been raised by any tribes[14], we have heard concerns expressed by at least one tribe (Coquille) that satisfactory consultation has not yet taken place regarding the proposed action.

USEPA-8

Recommendation: We recommend that steps for government-to-government consultation be taken to ensure that potentially affected tribes are meaningfully engaged.

[12] These noise sensitive locations are not identified in the Draft EIS.
[13] For example, consider impacts from climate change, habitat loss and fragmentation from fire and increased fire risk from widespread invasive grasses, collisions with wind turbines, wildlife-vehicular collisions, aircraft bird strikes, chemical poisonings, hazardous materials spills/releases and waste pits; increased predation due to transmission lines and other man-made structures that provide perches for predators.
[14] Draft EIS, p. 3-87

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action*

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

USEPA (Somers)-1: Comment noted. Please see comments USEPA (Somers)-2 through 7.

USEPA (Somers)-2: As described in Section 2.3.2, *Evolution of the Proposed Action* the Juniper East Low MOA was originally configured underneath the entirety of the Juniper MOA expansion area. However, after initial outreach conducted by Oregon ANG with County representatives in the area, the eastward limits of the Juniper East Low MOA were modified to reduce potential conflicts with sensitive regional resources, including protected areas (e.g., Malheur NWR and Steens Mountain Cooperative Management and Protection Area). As currently proposed, the Juniper East Low MOA avoids more than 60 percent of the Malheur NWR. Further, as described in Section 3.2.2.4, *Noise Abatement Procedures* as well as Section 6, *Special Procedures*, avoidance of noise-sensitive areas is emphasized to all flying units utilizing SUA and is noted in Special Operating Procedures (SOPs) established for all SUA within the U.S. (e.g., AFI 11-202, Vol. 3 and Air Education and Training Command [AETC] Supplement 13-201). Additionally, avoidance of noise-sensitive areas is emphasized to all instructors and students associated with 173d Fighter Wing (173 FW) and 142d Fighter Wing (142 FW). SOPs identify areas, including the Malheur NWR, where overflights at low altitudes should be avoided to the maximum extent practicable (e.g., National Marine Sanctuaries [NMSs], NWRs, farms and ranches, nesting sites, towns, and recreation areas, etc.). Implementation of avoidance procedures for noise-sensitive areas provides additional training opportunities for military pilots associated with the avoidance of known threats in real-world flight missions. Scheduling agencies for SUAs are responsible for informing pilots of previously or newly identified noise-sensitive areas.

Contrary to the commenter's assumption that 173 FW bird strikes are due solely to proximity to Malheur NWR and the Pacific Flyway, the conclusion did not consider other germane factors such as sortie rate, locations of bird strikes, time of day, etc. Further, while the Oregon ANG recognizes that bird-aircraft strikes present potential biological impacts, these potential strikes also present a substantial safety issue for both 142 FW and 173 FW aircraft and pilots. In order to minimize the potential for bird-aircraft strikes, all ANG installations are required to develop and implement a Bird-Aircraft Strike Hazard (BASH) Plan (AFI 91-202). The 142 FW and the 173 FW have developed BASH Plans specific to wildlife conditions found at each installation. Key elements common to the 142 FW and 173 FW BASH Plans, and required by AFI 91-202, are described in Section 3.7, *Safety*. As described in Section 6, *Special Procedures* in order to mitigate BASH risks, the 142 FW and 173 FW would be required to: 1) Continue to implement a BASH Plan (AFI 91-202) specific to wildlife conditions found at each installation; monitor the Avian Hazard Advisory System (AHAS) as part of the standard preflight mission requirements, and modify or cancel sorties in areas or periods with "moderate" to "severe" BASH risks. (Refer to Section 3.7.2.1, *BASH-Related Safety* for further details regarding Oregon ANG avoidance of resident and migratory birds.)

USEPA (Somers)-3: Refer to Comment Response USEPA-2 and Comment Response ONDA-5. As described in Section 4.2, *Noise* the maximum noise generated from a direct overflight at 500 feet AGL would be 116 dB. However, flight activity within the Juniper East Low MOA would be limited to 45 total flight hours annually distributed throughout the combined approximately 1,000-square-mile Juniper East Low MOA. Additionally, only 35 percent of those hours would be flown below 1,000 feet AGL. Consequently, maximum noise events resulting from direct aircraft overflights would be extremely infrequent and of very short duration. Additionally, as discussed in Comment Response USEPA-2, avoidance of noise-sensitive areas – including the Malheur NWR – to the maximum extent practicable would be emphasized to all pilots, instructors, and students associated with 173 FW and 142 FW as required by AFI 11-202, Vol. 3 and AETC Supplement 13-201. Implementation of the Proposed Action would result in noise levels of 46.3 L_{dnmr} with virtually no events above 65 dB SEL. Under the Proposed Action, none of the areas beneath the affected or proposed airspaces would experience noise levels greater than or equal to the FAA's 65 DNL threshold. Further, noise levels would remain under 55 DNL, which is the USEPA's recommended noise threshold for residential areas, farms, and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use (USEPA 1974; refer to Section 4.2, *Noise*).

USEPA (Somers)-4: As described in Section 4.7, *Safety* and Section 4.8, *Hazardous Materials and Wastes*, deployment of chaff and flare during Oregon ANG training missions within the existing Juniper Low MOA and proposed Juniper East Low MOA would only occur at or above 5,000 feet AGL. Further, only 204 hours of total flight activities would occur throughout the Juniper Low MOA, and only 45 hours of total flight activities would occur throughout the proposed Juniper East Low MOA. Consequently, chaff and flare use within these areas would be very infrequent. The 2005 *Review of Literature* by Farrell and Siciliano from the University of Saskatchewan concluded "…it is highly unlikely chaff releases during training exercises will have a significant adverse impact on either ecosystem functioning or human and wildlife health…" This is consistent with the 1997 USAF Study. Additionally, no biodegradable substitute exists for self-protection chaff. As described in Section 3.8, *Hazardous Materials and Wastes* the materials in chaff and flares are generally nontoxic except in exorbitantly large quantities that humans or wildlife would not encounter as a result of chaff use associated with Oregon ANG operations. Levels of use and accumulation would have to be extremely high to generate any significant adverse effects. As a matter of course, 142 FW and 173 FW pilots avoid the Malheur NWR as part of standard noise abatement procedures, and chaff deployment above 5,000 ft AGL would have no discernible impacts to the wildlife refuge.

USEPA (Somers)-5: See Comment Response ODFW-1 and Comment Response USEPA-4. The narrative of the Final EIS includes additional information in Sections 4.7.2.1 and 4.8.2.1 to reflect the response to this comment and similar comments. Additionally, special procedures associated with the National Fire Danger Rating

System have been removed from Section 4.7, Section 4.8, and Section 6 of the Final EIS.

USEPA (Somers)-6: All special procedures described in the Final EIS, as summarized in Section 6, *Special Procedures* will be summarized in a Final Mitigation Plan. Adherence to these special procedures will be required by the Record of Decision (ROD) and monitored for effectiveness during implementation. Consistent with Council on Environmental Quality (CEQ) guidance, within 30 days of the ROD signature, a draft Mitigation Monitoring Plan (MMP) will be provided to the Assistant Undersecretary of the Air Force for Installations and Environment.

USEPA (Somers)-7: Council on Environmental Quality (CEQ) guidelines for considering cumulative effects under the National Environmental Policy Act (NEPA) (CEQ 1997) identify cumulative impacts as those environmental impacts resulting "from spatial and temporal crowding of environmental perturbations. The impacts of human activities will accumulate when a second perturbation occurs at a site before the ecosystem can fully rebound from the impacts of the first perturbation." Noting that environmental impacts result from a diversity of sources and processes, this guidance observes that "no universally accepted framework for cumulative impacts analysis exists," while noting that certain general principles have gained acceptance. The CEQ provides guidance on the extent to which agencies of the federal government is required to analyze the environmental impacts of past actions when they describe the cumulative environmental effect of an action (CEQ 2005). This guidance provides that a cumulative impacts analysis might encompass geographic boundaries beyond the immediate area of an action and a timeframe that includes past actions and foreseeable future actions. However, the CEQ guidelines observe, "[it] is not practical to analyze cumulative impacts of an action on the universe; the list of environmental impacts must focus on those that are truly meaningful" (CEQ 2005).

Per CEQ guidelines, the cumulative impacts analysis in the Final EIS focused on meaningful impacts from past, present, and reasonably foreseeable future actions. The level of analysis for each resource was commensurate with the intensity of the impacts identified in Section 4, *Environmental Consequences*. As described in the Final EIS, the Proposed Action would result in less than significant impacts to airspace management, noise, land use and visual resources, biological resources, and safety. Further, as described in Section 4, *Environmental Consequences*, the Proposed Action would not result in ground disturbing activities that would directly impact environmental resources; therefore, cumulative impact analysis focused on past, present, and reasonably foreseeable large-scale projects that would be likely to or have the potential to interact with and compound potential impacts associated with the airspace proposal. Future actions that are speculative were not considered and further, the cumulative impacts analysis did not consider broad general concepts such as population growth, etc. which the Proposed Action would not interaction or substantially contribute.

USEPA (Somers)-8: Tribal outreach and consultation has been on-going throughout the EIAP. Outreach efforts have been summarized in Section 4.5, *Cultural Resources* and documented in Appendix H, *Tribal Outreach* and included distribution of three letters as well as follow-up phone calls and/or in-person meetings. The Coquille Tribe responded to the 2 July 2012 outreach letter with the following comment:

"The Coquille Tribe has no objections or comments to make regarding the above referenced matter. We thank you for the opportunity to comment, and wish you well in your project." – Donald B. Ivy, Tribal Historic Preservation Office, Cultural Resources Program

The Oregon ANG and Oregon Military Department (OMD) have reached out to and conducted outreach and consultation with all tribes, requesting participation in the Public Hearings for the Draft EIS during a meeting on 29 June 2015 and in a letter dated 31 July 2015. However, no responses were received and no Native American representatives attended the Public Hearings for the Draft EIS. OMD conducted additional rounds of outreach in September and October 2015 to listen to and receive any tribal concerns with no additional comments added.

To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: RE: Oregon Air National Guard (ANG) Training Airspace, Proposed Establishment and Modification Initiative

-----Original Message-----
From: Wright, Wendy [mailto:Wright.Wendy@epa.gov]
Sent: Wednesday, July 29, 2015 4:43 PM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: Oregon Air National Guard (ANG) Training Airspace, Proposed Establishment and Modification Initiative

Please send a CD of this Initiative to:

Elaine Somers

ETPA - 202-3

20th Floor

1200 - Sixth Avenue

Seattle, WA 98101-3140

USEPA-1

Also, please tell me the date the announcement was published in the Federal Register. I looked in the Friday, July 24 Federal Register, but I did not see the announcement. Thank you for your assistance.

Wendy Wright

SEE Administrative Assistant

U.S. Environmental Protection Agency

1200 Sixth Avenue - 20th Floor

Seattle, WA 98101-3140

206.553.6232

UESPA (Wright)-1: An electronic version of the Draft EIS was delivered as requested.

Kevin Marek
NGB/A7AM
Shepperd Hall
3501 Fletchet Avenue,
Joint Base Andrews, MD 20762-5157

September 8, 2015

Oregon Department of Fish and Wildlife comments on the July 24, 2015 Draft Environmental Impact Statement for Proposed Establishment and Modification of Oregon Military Training Airspace

Dear Mr. Marek:

Thank you for the opportunity to provide comments on Draft Environmental Impact Statement for Proposed Establishment and Modification of Oregon Military Training Airspace. The Oregon Department of Fish and Wildlife (Department) has reviewed the Draft EIS and associated materials. The Department appreciates opportunities such as this to collaborate with our partners to ensure the proposal (if implemented) will use the best available methods to avoid, minimize, and mitigate impacts to Oregon's Fish and Wildlife and the habitats they depend on.

Department Authorities and General Comments:

Department comments are based on Oregon Revised Statute (ORS 496.012) which provides the Department with the statutory authority to manage wildlife resources in the State of Oregon. Additional specific ORS and Oregon Administrative Rules (OARs) are referenced where appropriate.

Avoidance and Minimization of Impacts to Greater Sage-Grouse and their Habitats

The Department recommends the Oregon Air National Guard (ANG) avoid and minimize potential impacts from the proposed action to Greater Sage-Grouse in Oregon by:

1. Reduce the wildfire risk associated with the flare use to the maximum extent possible. To provide this level of risk reduction, the Department recommends the Oregon ANG restrict the use of flares within the proposed airspace when the National Fire Danger Rating System rating rises to the level of high instead of extreme, as currently proposed. Wildfire has been identified as one of the primary threats to Greater Sage-Grouse throughout their range including Oregon (Stiver 2012, USFWS 2013); and

ODFW-1

2. Reduce the threat of noise disturbance to Greater Sage-Grouse during the breeding season to the maximum extent possible. The majority of Greater Sage-Grouse leks (breeding locations) are located within Core Areas and Low Density Areas identified in the Greater Sage-Grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and Enhance Populations and Habitat (ODFW 2011). The Department recommends the Oregon ANG add Greater Sage-Grouse Low Density habitats to the currently proposed Core Area habitats avoidance measure as stated on Pages 4-66 and 4-67 of the DEIS:

   Additionally, only 35 percent of those hours would be flown below 1,000 feet AGL. Consequently, maximum noise events resulting from direct aircraft overflights would be infrequent and of short duration. Additionally, in order to avoid impacts to the greater sage-grouse leks (i.e., aggregations of breeding males), the Oregon ANG would avoid greater sage-grouse core areas to the maximum extent practicable during the breeding season (i.e., 1 March to 31 May; Harrell 2008). Further, in the event that the Oregon ANG were to activate airspace over these core areas during the breeding season, flight altitudes would be restricted to 1,000 feet AGL or above over core areas within the Juniper Low MOAs, reducing the potential maximum exposure. Consequently, the Proposed Action may affect, but is not likely to adversely affect the greater sage-grouse.

ODFW-2

Thank you for the opportunity to provide comment on the Draft EIS relevant to the proposed action and potential impacts and potential impacts to Greater Sage-Grouse in Oregon. Please contact me at 503.947.6082 or at art.c.martin@state.or.us if you have questions or need clarification on any of the contents of these Department comments.

Sincerely,

Art Martin
Energy and NRDA Coordinator
Wildlife Division
Oregon Dept. of Fish and Wildlife
3406 Cherry Avenue, NE
Salem, Oregon 97303
art.c.martin@state.or.us
503-947-6082
971-600-6492 (cell)

Literature Cited

Oregon Department of Fish and Wildlife. 2011. Hagen, Christian, and Robert Gene Anthony. Greater sage-grouse conservation assessment and strategy for Oregon: a plan to maintain and enhance populations and habitat. April 2011.

Western Association of Fish and Wildlife Agencies. 2012. Stiver, S. "Near-term greater sage-grouse conservation action plan. Range-wide Interagency Sage-Grouse Conservation Team and Western Association of Fish and Wildlife Agencies." Unpublished Report presented to Greater Sage-Grouse Executive Oversight Committee and Sage-Grouse Task Force, Hilton Head, SC, USA (2012).

U.S. Fish and Wildlife Service. 2013. Greater Sage-grouse (Centrocercus urophasianus) Conservation Objectives: Final Report. U.S. Fish and Wildlife Service, Denver, CO. February 2013.

STATE GOVERNMENT AGENCIES

ODFW (Martin)-1: In response to this comment, the ANG has reviewed publicly available data, including observed wildfire danger data maintained by the Wildland Fire Assessment System (2015), maintained by the USFS Rock Mountain Research Station. Further, the ANG has prepared Appendix I, *Wildfire Hazard Analysis* to further assess the need for and utility of additional restrictions on flare use. The necessity for flare use is highlighted in Appendix I, Section I.5.

The Oregon ANG has developed and routinely implements additional safety precautions to ensure safe flare-use (AFI 11-2F-15V3 KF CH 8). While the minimum federal chaff and flare release altitude requirement is 700 feet AGL, neither unit deploys chaff or flares below 5,000 feet AGL, which effectively eliminates the potential for wildfire related to flare use by the Oregon ANG (refer to Section 3.7, *Safety*). The burnout time for an MJU-7 flare is typically 3.5 to five seconds and occurs over a vertical distance of 200 to 400 feet. At the minimum release elevation of 5,000 feet AGL, the difference between the estimated burnout elevation and contact with any potentially flammable material is approximately 4,598 feet AGL (refer to Table 4.7-2 in Section 4.7, *Safety* of the Final EIS) nearly 1 mile (or the equivalent of 13 football fields) above the ground surface.[2] Even under rare circumstances in which a flare might require double the amount of time maximum predicted for burnout (i.e., 10 seconds), there would still be a 3,390-foot buffer before the flare would contact potentially flammable materials at the ground surface. If an unburned broken or whole flare struck the ground, it would not burn unless subject to temperatures or friction generating temperatures in the one to two-thousand-degree range (USAF 2011). Therefore, the potential for wildfire associated with flare use would be negligible under implementation of the Proposed Action. As further described in Appendix I, *Wildfire Hazard Analysis* additional restrictions on flare use based on wildfire danger rating would not further reduce less than significant impacts associated with wildlife and wildfire risk and would limit the ability of the Oregon ANG to perform realistic training operations, such that the Proposed Action would not meet its intended purpose and need described in Section 1.5, *Purpose and Need for the Proposed Action*. The narrative of the Final EIS includes additional information in Sections 4.7.2.1 and 4.8.2.1 to reflect the response to this comment and similar comments. Additionally, special procedures associated with the National Fire Danger Rating System have been removed from Section 4.7, Section 4.8, and Section 6 of the Final EIS.

ODFW (Martin)-2: See Comment Response ONDA-5. As described in *Greater Sage-Grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and Enhance Populations and Habitat* (ODFW 2011), provides that "Core Areas" are high priority

[2] One football field includes 100 yards in the field of play as well as two 10-yard end zones, totaling approximately 360 feet.

locations for protection from habitat loss and fragmentation, while "Low Density Areas" are areas for which such losses may be of less consequence. Low Density Areas beneath the proposed Juniper East Low MOA expansion area would include less than 20 square miles. The majority of the Low Density Habitat identified in *Greater Sage-Grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and Enhance Populations and Habitat* (ODFW 2011) is located under the existing Juniper Low MOA. Implementation of the Proposed Action would further reduce flight operations over these areas from 243 hours annually to 204 hours[3]. Consequently, the Proposed Action would not have significant impacts on the greater sage-grouse (refer to Table 4.2-1 in the Final EIS and Appendix E, *Noise*).

[3] Total number of flight hours in Juniper Low and the proposed Juniper East Low MOA is not additive. Each MOA is assessed separately for impact analyses. The hours provided in the comment responses and in Table 2-3 of the Final EIS reflect the projected actual numbers within the proposed airspace.

COUNTY COURT

P. O. Box 788 • Heppner, Oregon 97836
(541) 676-5620 • FAX (541) 676-5621

TERRY K. TALLMAN, Judge
email: ttallman@co.morrow.or.us
Boardman, Oregon
LEANN REA, Commissioner
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DON RUSSELL, Commissioner
email: drussell@co.morrow.or.us
Boardman, Oregon

September 8, 2015

Mr. Kevin Marek
NGB/A7AM
Shepperd Hall
3501 Fetchet Avenue
Joint Base Andrews, MD 20762-5157

RE: Oregon Airspace Initiative EIS

Dear Mr. Marek:

The Morrow County Court appreciates the opportunity to comment on the draft Environmental Impact Statement (dEIS) for the Oregon Airspace Initiative. It is specifically the proposed Redhawk Military Operations Area (MOA) that is of interest, which if approved, will cover the southern half of Morrow County with a floor of 11,000 feet Mean Sea Level (MSL). The dEIS identifies a proposed action and several alternatives. This letter does not delve into the specifics of those alternatives, but is focused on the Redhawk proposal overall.

As stated during the Scoping phase of this process Morrow County does not anticipate any concerns with land use or noise, however with the proposed winter training schedule over the Blue Mountains the County does have emergency preparedness and response concerns. This concern appears to be defined as part of Chapter 3.7 Safety, more specifically at 3.7.2 Existing Conditions 3.7.2.2 Other Aircraft Related Safety Issues Weather-Related Incidents, but does not specifically address incidents that would require search and rescue or other emergency preparedness activities. Addressing the Safety concerns from Chapter 3.7 as Safety Impacts is found at Chapter 4.7 Safety, however the base concern raised by Morrow County does not appear to be addressed. Morrow-1

> Morrow County finds that the draft Environmental Impact Statement does not adequately address the potential safety impacts should a plane be forced to land or crash land within the Redhawk MOA during winter training missions, nor does the draft Environmental Impact Statement address how local emergency response entities would cooperate with the Oregon National Guard and the Air Force should such an incident happen.

Since Scoping has concluded another issue has been raised of local concern. Wind energy developments throughout the area have been experiencing difficulties with obtaining the necessary clearances through the Federal Aviation Administration (FAA) because of 'clutter' as seen through the Fossil Radar Range. The concern is that the approval and use of the Redhawk MOA will exacerbate the already difficult task of obtaining clearance through the FAA leading to a further reduction in approved wind energy development projects. Several of the small counties underlying the Redhawk MOA are looking to renewable energy development as an economic opportunity into the future. As the Oregon Air National Guard is not proposing on Morrow-2

ground activities with an economic benefit, Morrow County wants to be sure that the development and use of the Redhawk MOA would not further curtail current economic endeavors.

Morrow-2 (cont.)

> Morrow County requests that the final Environmental Impact Statement address impacts of the Redhawk MOA on the Fossil Radar Range, further impacting renewable, particularly wind, energy development within and around Morrow County.

We look forward to working with you and others on this process. Should you have any questions concerning this letter please contact Carla McLane, Planning Director. Her contact information is as follows: 205 NE Third Street, P.O. Box 40, Irrigon, Oregon, 97844, 541-922-4624, cmclane@co.morrow.or.us.

Thank you for your consideration of our comments.

Cordially,

Terry K. Tallman
Judge

Leann Rea
Commissioner

Don Russell
Commissioner

LOCAL GOVERNMENT AGENCIES

Morrow County (McLane)-1: As described in the NGB response to the County's scoping letter, dated 25 March 2014, the USAF has procedures in place – and the NGB in turn adheres to these – that establish response measures and protocols when off-installation mishaps occur. In the event of a catastrophic mishap, emergency response duties would not fall on local jurisdictions; it would be the responsibility of the nearest active-duty installation to respond to the crash site. In the extremely unlikely event that a catastrophic mishap occurs in close proximity to a densely populated area, it is likely that in addition to personnel from the nearest active-duty installation, first responders would include local police and fire departments. In this extremely unlikely scenario, Oregon ANG would coordinate an orchestrated effort to respond to the crash site and would provide a clear chain of command and instructions regarding first-responder procedures as there are special evidence-handling procedures that must be followed during active-duty military investigations. In any event, it would ultimately be the responsibility of the Oregon ANG and the USAF to manage the response at the crash site and to ensure adherence to all applicable response measures and protocols.

Morrow County (McLane)-2: The potential for wind energy development beneath the proposed airspaces, including the proposed Redhawk MOA Complex, is discussed extensively in Section 5.1.2.1, *Regional Wind Energy Development*. Given the relatively high potential for wind energy development in Oregon, a number of wind turbine development projects have been proposed throughout the state. In administering Title 14 of the Code of Federal Regulations (CFR) §77, the FAA strives to promote air safety and the efficient use of the navigable airspace. Under 14 CFR §77, any individual or entity proposing to construct or develop a facility exceeding 200 feet AGL (or when requested) is required to provide notification in order for the FAA to conduct aeronautical studies based on information provided by proponents on an FAA Form 7460-1, *Notice of Proposed Construction or Alteration*. Through this process, the FAA is able to maintain a database of such proposed construction projects, including proposed wind energy development.

A number of wind turbines proposed to be constructed underneath or in the vicinity of the Redhawk MOA Complex have been recorded by the FAA's OE/AAA database (refer to Figure 5-2). In general, these proposed wind developments range in total height (tower plus turbine) from 25 feet to 500 feet (FAA 2013). Given the height of the proposed Redhawk MOA (i.e., with a floor elevation of 11,000 feet MSL), currently proposed as well as future proposed wind turbine development is would not be affected by the proposed airspace. Therefore, implementation of the Proposed Action is unlikely to affect FAA approval of wind energy development projects.

VIA EMAIL

September, 2, 2015

Kevin Marek, NGB/A7AM
Shepperd Hall
3501 Fetchet Avenue
Joint Base Andrews MD 20762-5157
usaf.jbanafw.ngb-a7.mbx.A7A-NEPA-COMMENTS@mail.mil

Re: Proposed Establishment and Modification of Oregon Military Training Airspace, Draft Environmental Impact Statement

Dear Mr. Marek:

Please accept these comments on behalf of the Oregon Natural Desert Association (ONDA) regarding the Draft Environmental Impact Statement (DEIS) for the Oregon Air National Guard Airspace Initiative. We appreciate the opportunity to provide input on this process. Although properly regulated airspace can have a relatively small impact on the ground below, no activity is without impacts. As described below, ONDA urges the National Guard to evaluate additional alternatives to reduce or avoid impacts to wilderness values and wildlife species and habitat.

ONDA is an organization of more than 4,500 members and supporters whose mission is to protect, defend, and restore Oregon's native desert ecosystems. ONDA's members regularly use and enjoy areas throughout central and southeastern Oregon that would be affected by the proposed airspace expansion. Our members use these places for recreational activities and value this landscape for its importance to wildlife, particularly the Greater sage-grouse (*Centrocercus urophasianus*). Areas of particular importance to our members include the Hart Mountain, Steens Mountain, the John Day Wild and Scenic River, and Wilderness, Wilderness Study Areas (WSA), Lands with Wilderness Character (LWC), and wildlife habitat throughout the proposed expansion areas. (Land Use and Visual Resources, Sections 3.3 and 4.3; Biology, 3.4 and 4.4; Noise, Sections 3.2 and 4.2). ONDA-1

The DEIS analyzes four alternatives that focus on different combinations of the proposed airspace additions and expansions. The narrow scope of the alternatives fails to consider how the proposed actions would impact wilderness values throughout the project area. In failing to consider impacts to WSAs and LWCs, the DEIS fails to analyze impacts to naturalness and solitude—two key components of wilderness—throughout tens of thousands of acres of specially managed public lands. Similarly, the DEIS also fails to analyze impacts to an area proposed in Congress for designation as Wilderness – the proposed Sutton Mountain Wilderness – introduced in the Senate as S.1255, the "Sutton Mountain and Painted Hills Area Preservation and Economic Enhancement Act of 2015." ONDA-2 ONDA-3

The DEIS also fails to properly analyze impacts to recreation and tourism for the communities that would be affected by the proposed military operation areas (MOAs). Significant amounts of recreation activity take place in the John Day River corridor below the proposed Redhawk MOA, as well as on and around Steens Mountain and Hart Mountain underlying the proposed Juniper and Hart MOA expansion areas, respectively. ONDA-4

Furthermore, the DEIS fails to consider alternatives that minimize impacts to wildlife in the regions where the Proposed Action is to take place. The Greater sage-grouse, a species the U.S. Fish and Wildlife Service has determined is "warranted" for listing under the Endangered Species Act, occurs throughout the project area. There is significant overlap between essential sage-grouse habitat and the proposed airspace expansions, especially in the Hart and Juniper MOAs. While the National Guard Bureau conducted some analysis of impacts from the Proposed Action on sage-grouse , the steps identified to reduce impacts to the species do not go far enough and the DEIS fails to properly analyze alternatives that would effectively minimize impacts to wildlife. ONDA-5

Under the preferred alternative the DOD would create the Redhawk MOA complex and expand the Eel MOA, Juniper MOA and Hart MOAs. ONDA is concerned that the DEIS fails to analyze a full range of alternatives and that the implementation of the Proposed Action will result in negative impacts to wilderness and wildlife values. ONDA holds the DOD accountable for the verbal commitment made during the public scoping meeting at the Prineville Public Library on August 8th to include ONDA's comments in the alternatives and analysis of effects of the Proposed Action and holds the DOD responsible for complying with the NEPA requirement to consider public input. ONDA is committed to preventing impacts to wilderness and wildlife values and as described below strongly urges the Oregon Air National Guard and DOD to conduct a more thorough analysis of a complete range of alternatives in order to identify a preferred alternative that minimizes impacts to wilderness values, recreation uses, and wildlife species and habitat within the project area. ONDA-6

I. Impacts to Wilderness Values

The proposed projects have the potential to negatively impact WSAs and LWCs within the proposed new and expanded MOAs. WSAs in Prineville, Burns, and Lakeview BLM Districts could be impacted, including the Spaulding, Basque Hills, Rincon, Hawk Mountain, Pats Cabin, Lower John Day, and Aldrich Mountain WSAs. ONDA-7

Among public lands resources, "lands with statutorily-defined wilderness characteristics are of particular importance." *Or. Natural Desert Ass'n v. Bureau of Land Mgmt*., 625 F.3d 1092, 1097 (9th Cir. 2010). In 1964, Congress identified the conservation of such lands as a national priority in the Wilderness Act. 16 U.S.C. §§ 1131–36. Intended to "secure for the American people of present and future generations the benefits of an enduring resource of wilderness[,]" the Wilderness Act provides for the protection and preservation of federal lands in their natural condition. *Id*. § 1131(a). Using unique words found in no other natural resource protection law, Congress defined a "wilderness," contrasted with "areas where man and his own works dominate the landscape," as:

> an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this chapter an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

Id. § 1131(c); *see also* 43 U.S.C. § 1702(*i*) (Federal Land Policy and Management Act, adopting same definition).

WSAs are areas without roads that have been inventoried and found to have wilderness characteristics as defined in the Wilderness Act and the Federal Land Policy and Management Act (BLM, 2012). As the steward of our public lands, the BLM is required to manage WSAs in a manner that maintains the area's suitability for preservation as wilderness and to protect the wilderness characteristics until Congress determines whether or not they should be designated as Wilderness.

The DEIS states that the analysis of potential impacts to land use include identification and description of land use areas that may be affected by implementation of the Proposed Action (DEIS at 4-44). Yet, the DOD fails to identify WSAs and LWCs as areas that may be affected by the proposed action. In so doing, it fails to analyze potential impacts to the unique and finite wilderness values of these lands. This violates NEPA's requirement that agencies to take a "hard look" at the environmental consequences of proposed actions. ONDA-8

The DEIS fails to analyze the impacts of noise and the presence of aircraft on solitude and naturalness. As mentioned above, there are numerous WSAs and LWCs under the proposed airspace. Among the special resource values of these lands are opportunities to experience natural landscapes and solitude. Noise pollution and visual disturbances by aircraft over WSAs and LWCs could detract from solitude and naturalness. Additionally, the proposed action would result in impacts from noise and/or visual disturbances that would impact BLM's inability to manage these special resource areas in a manner that maintains their suitability for preservation as wilderness. ONDA-9

The DEIS states that "a land use impact would occur if a land use was placed into a noise level greater than what it is considered compatible with." DEIS at 4-44. In the Challis Wilderness EIS, the Air National Guard (ANG) "strongly objected" to the proposed establishment of wilderness areas on the basis that a Military Training Route (MTR) in the area was incompatible with the wilderness value of solitude (DOI, 1986). While the Proposed Action for the airspace initiative is to expand and establish new MOAs, the impacts of noise from military aircraft would be equal to ONDA-10

or greater than what is experienced from that generated by an MTR, and therefore the Proposed Action is incompatible with the wilderness value of solitude. ONDA-10 (cont.)

The DEIS states that "the proposed airspace must be capable of supporting both day and night operations." DEIS at 1-13. As described above, the wilderness value of solitude is incompatible with military operations and overflights. Overflights during the night are particularly offensive to wilderness values and the DEIS fails to analyze alternatives to minimize these impacts. ONDA-11

The DEIS only references impacts to naturalness once in regard to chaff debris. ONDA agrees that debris from chaff and flares impacts naturalness. However, the presence of military aircraft performing combat maneuvers and training missions above wilderness lands also would impact naturalness and solitude character, and the DEIS fails to analyze these impacts. ONDA also is concerned about potential impacts to naturalness, as well as human health and safety, from the risk of wildland fire resulting from chaff or flares. The DEIS must disclose and discuss this issue. ONDA-12

The DEIS fails to analyze potential alternatives that would reduce the impacts of noise and visual disturbances on special resource value areas within the Proposed Action area. One alternative would be to eliminate one or more of the new or expanded MOAs to minimize impacts to WSAs and LWCs. Another alternative would be to adjust the boundaries of one or more of the new or expanded MOAs to avoid WSAs and LWCs. ONDA-13

Recently, the Sutton Mountain and Painted Hills Area Preservation and Economic Enhancement Act of 2015 was introduced in Congress. The 58,000-acre wilderness, which includes the Sutton Mountain and Pat's Cabin Wilderness Study Areas, lies underneath the proposed Redhawk MOA complex. This area has incredible paleontological resources, abundant wildlife and myriad opportunities for primitive recreation. For these reasons, visitors come from all over the world to explore the greater Sutton Mountain landscape. ONDA-14

According to the Bureau of Land Management's recently finalized Resource Management Plan, Pat's Cabin and Sutton Mountain are part of the Bridge Creek Special Recreation Management Area. Under the plan, this area is managed to allow visitors to "engage in cross-country hiking and primitive overnight camping, big game and upland hunting, hiking, horseback riding, back-country navigation and exploration, photography and rock and fossil study in steep, challenging terrain." Because this proposed wilderness lies underneath the proposed Redhawk MOA complex, an analysis of how the proposed airspace will impact this area must be conducted. Furthermore the DOD must evaluate one or more alternatives that would *reduce* or *eliminate* impacts to the proposed wilderness. ONDA-15

II. Impacts to Recreation and Tourism

The DEIS fails to properly analyze potential impacts to recreation and tourism from noise in central and southeast Oregon. The DEIS states that tourism in Oregon is important to local economies, representing approximately 9% of employment, and highlights the significance of quiet recreation opportunities as one of the main sources of tourism in the Redhawk, Juniper, and Hart Proposed Action areas. DEIS at 4-109. Yet the DOD concludes that the Proposed Action would have negligible impacts on recreation and tourism, saying that the majority of the areas ONDA-16

impacted will experience flights at or above 11,000 MSL and "would result in generally inaudible sound levels." An aircraft flying at 11,000 MSL in the Juniper and Hart areas translates to roughly 6,000 feet above ground level (AGL), a height at which F-15 tactical fighter aircrafts are easily heard and would likely result in extraordinary impacts to quite recreation opportunities.

ONDA-16 (cont.)

Furthermore, the expansion of the Juniper MOA has a floor of 500 AGL and impacts to quiet recreation would be especially detrimental under this portion of the Proposed Action. The DEIS argues that the Hart and Juniper areas already experience flyovers and the current presence of aircraft justifies the proposed expansion of the airspace. DEIS at 4-110. This assertion is arbitrary, as the proposed action would result in an increase in the size of the flyover area, thus further degrading and reducing opportunities for quite recreation, solitude, and the ability to experience natural landscapes, and resulting in negative impacts to important economic drivers for local communities.

ONDA-17

The DEIS states that a land use would be affected if changes to the natural environment eliminate use or enjoyment of a place. DEIS at 4-45. User groups that live in and travel to these regions to enjoy the solitude, natural landscapes and quite recreation opportunities do not anticipate military operations will impact their experience. The enjoyment and use of these environments would be negatively impacted by the Proposed Action. One alternative the DEIS fails to explore to reduce the impact to recreation and tourism is to raise the floor of the proposed and expanded MOAs to at least 13,000 MSL to minimize both noise and visual disturbances from overflights. Similar to raising the floor, an alternative that considers elimination or boundary changes to the Proposed Action, minimizing impacts to recreation opportunities and limiting negative ramifications to local economies, should also have been analyzed.

ONDA-18

III. Impacts to Wildlife including Greater Sage-grouse

The DEIS fails to properly analyze alternatives that would minimize impacts to Greater sage-grouse. The proposed MOA expansion covers large swaths of private and public land that contain essential sage-grouse breeding, nesting, and brood-rearing habitat (Hagen *et al*., 2011). In fact, most of southeastern Oregon lies within one of just two remaining sage-grouse habitat "strongholds" in all of North America essential to the survival and recovery of this imperiled species. The flight activities that would be conducted within the expanded MOAs would affect sage-grouse. The sage-grouse is a species iconic to Oregon's high desert and is a true obligate of the sagebrush system it inhabits. The elaborate courtship display of sage-grouse is one of the most captivating wildlife-watching experiences in North America. The Hart C and Juniper D MOAs and the surrounding areas are home to sage-grouse and active lek sites, as well as many other species of plants and wildlife that share sagebrush uplands on public lands.

ONDA-19

In the U.S. Fish and Wildlife Service's 2010 "warranted" determination for Greater sage-grouse, which was based in large part on a Monograph issued in 2009 by the U.S. Geological Survey (Knick and Connelly, 2009), the Service detailed the threats to sage-grouse and the bird's disappearing sagebrush habitat. The Monograph and "warranted" finding present scientific information demonstrating that known threats to sage-grouse (including the types of habitat-impacting actions that are part of the Oregon Airspace Initiative) are now understood to affect

the species at far more significant spatial scales than previously understood. Scientific understanding of sage-grouse and actions that may prevent further loss of habitat have continued to evolve and expand since publication of the "warranted" finding and the Monograph. Examples such as BLM's National Technical Team report (USFWS, 2013) and the Oregon Department of Fish and Wildlife ("ODFW") Greater Sage-Grouse Conservation Assessment and Strategy (Hagen *et al*. 2011) clearly indicate that sage-grouse are affected by activities in their habitat and that there is real need to avoid, minimize, or mitigate for these activities to protect the species and preserve its habitat.

In 2011, the Oregon Department of Fish and Wildlife identified Core Areas representing the most important sage-grouse habitat in Oregon. A major threat to the sage-grouse is continuing loss and fragmentation of sage-grouse habitat from a variety of causes. Essentially any land use or activity that subdivides blocks of intact sagebrush causes fragmentation (USFWS 2010, defining fragmentation as "the separation or splitting apart of previously contiguous, functional habitat components of a species"). Guidance from the U.S. Fish and Wildlife Service and ODFW makes clear that the objective for disturbances in sage-grouse habitat is to avoid or significantly reduce any impacts in sage-grouse habitat because of the negative consequences for the species.

Physiological responses to noise in animals range from mild annoyance to panic and escape. Factors that can influence animal responses include whether an animal is feeding, resting, caring for young, distance to the sound pollution source, source type and suddenness and frequency of the source (Radle, 2007). Closer noise pollution sources generally are more likely to produce a response. Some indirect effects in response to overflights have been documented, such as eggs kicked from nests when birds flush, trampling or separation from young, increased predation, loss of feeding, and avoidance or abandonment of habitat. Recent research suggests that management of the natural soundscape is a critically important component of Greater Sage-grouse conservation and protection (Patricelli *et al*. 2013).

ONDA-19 (cont.)

ONDA appreciates the DEIS's consideration and analysis of potential impacts to sage-grouse during the breeding season, including measures to minimize impacts, such as avoiding core areas during breeding season and increasing the floor to 1,000 feet AGL (Juniper Low MOA) in the event that a flyover is unavoidable. But the DEIS fails to consider a reasonable range of alternatives to minimize impacts to sage-grouse and other wildlife species. For example, providing protective measures for sage-grouse only during the breeding season is insufficient. The DEIS needs to evaluate and mitigate for effects at and during other essential periods to sage-grouse survival and recovery – i.e. nesting, brood-rearing, and over-wintering. The consideration of only the breeding habitat is an incomplete analysis at best and does not provide the necessary measures to prevent impacts of the Proposed Action on sage-grouse.

Several actions could be taken to reduce impacts to sage-grouse especially in areas where the Proposed Action has the highest likelihood of impacting sage-grouse (Hart C and Juniper D MOAs). An alternative that evaluates no expansion of Hart C and Juniper D is necessary to consider how best to minimize impacts to sage-grouse. As with wilderness areas, altering the size and configuration of the proposed and expanded MOAs could avoid or minimize some impacts to wildlife species. The DOD must consider such boundary adjustments. Lastly, the floor of the

proposed and expanded MOAs could be raised, to at least 13,000' MSL, to minimize noise from overflights which would also benefit wildlife.

ONDA-19 (cont.)

IV. Additional Alternatives

The DEIS fails to consider a reasonable range of alternatives. The three action alternatives do little to address impacts to wildlife and wilderness values in the Proposed Action area. Similarly, the DEIS presents no alternatives that modify the Proposed Action to effectively limit impacts to recreation and tourism in the affected counties. At a minimum ONDA suggests that the DOD consider the following alternatives to minimize impacts to resource values.

1. Propose only the EEL MOA expansions. Do not propose the Juniper/Hart MOA expansions or creation of the Redhawk MOA. Limiting expansions and avoiding the creation of the new Redhawk MOA would best prevent negative impacts on wilderness values, recreation opportunities, and the wildlife and wildlife habitats affected by the training areas.

ONDA-20

2. Alter the Juniper/Hart MOA boundaries, using Highway 205 as the eastern border for the Hart C and Juniper D zones, in order to avoid affecting the Steens Mountain Cooperative Management and Protection Area[1] and Steens Mountain Wilderness Area and important wildlife habitat. By using this highway as the border, the impact to the wildlife and wilderness values within both the Hart C and Juniper D MOAs would be greatly reduced.

3. Propose the expansion of the Juniper/Hart MOA and the establishment of the Redhawk MOA with a floor for the new zones of 13,000 MSL. This will move all of the training activity further away from wildlife habitat and wilderness values, and therefore reduce the impact that the training exercises will have.

Conclusion

For these reasons, ONDA urges the National Guard Bureau to limit air combat training to areas where it will not unacceptably conflict with conservation of important natural resources. ONDA strongly encourages the National Guard Bureau to create additional, appropriate airspace expansion alternatives to reduce or avoid impacts to wilderness values and wildlife species. We look forward to reviewing the Final EIS for the Airspace Initiative.

[1] In 2000, Congress passed the Steens Mountain Cooperative Management and Protection Act of 2000 ("Steens Act"), 16 U.S.C. § 460nnn *et seq*. The Act established the Cooperative Management and Protection Area ("CMPA"), a 496,000-acre protected area managed by BLM and covering most of Steens Mountain. *Id*. § 460nnn-11(a). "The purpose of the [CMPA] is to conserve, protect, and manage the long-term ecological integrity of Steens Mountain for future and present generations." *Id*.§ 460nnn-12(a). The Act also established the 173,000-acre Steens Mountain Wilderness Area.

Please include or maintain ONDA on your mailing list (see address below) for all documents related to this proposal. If you have any questions regarding these comments, please feel free to contact us.

Sincerely,

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NON-GOVERNMENT SPECIAL INTEREST GROUPS

ONDA (Austin)-1: Issues surrounding greater sage-grouse (*Centrocercus urophasianus*) and land use, including federally and state-managed open space and wilderness areas, are discussed in Section 4.4, *Biological Resources* and Section 4.3, *Land Use and Visual Resources*, respectively. Additional information regarding land use, including wilderness areas, is also provided in Appendix G, *Land Use and Land Management*. As described in Comment Response ONDA-7, Wilderness Study Areas (WSAs) and Lands with Wilderness Characteristics (LWCs) have been defined and discussed in Appendix G, *Land Use and Land Management* within the Final EIS.

ONDA (Austin)-2: As described in Section 2.3.2, *Evolution of the Proposed Action*, the development of the current airspace proposal has been a result of more than five years of continuous coordination with the FAA's Air Route Traffic Control Center (ARTCC), Portland Terminal Radar Approach Control Facilities (TRACON), and myriad other regional airspace users (e.g., general aviation pilots, recreational glider clubs, etc.). The controlling ARTCC applied evaluative and exclusionary criteria to preliminarily design the placement of airspace boundaries. The specific locations and shapes of proposed airspace modifications were developed to account for aircraft flight path histories in the region in order to identify the most ideal locations and configurations for the proposed airspace with the least potential to impact surrounding military, commercial, and general aviation. No alternate locations exist for the establishment of proposed military airspace that would meet the purpose and need of the Proposed Action.

The current airspace proposal reflects an ongoing attempt to reduce potential conflicts with commercial and general aviation traffic, limit potential environmental concerns, and promote more responsible stewardship of airspace by the Oregon ANG. As a part of outreach during the development of the Proposed Action, the external boundaries of the proposed Juniper/Hart MOA Complex were revised to avoid Malheur Lake and the Malheur NWR, as well as the Steens Mountain Cooperative Management and Protection Area (see Figure 2-5 and Figure 3.3-4). The boundaries of the proposed Juniper Low MOA were revised during development of the airspace proposal to avoid these areas, as well as the Hart Mountain NWR, entirely. Further, the Redhawk MOA Complex has been segmented in order to reduce the need for and frequency of activation of the entire airspace area. As described in the Final EIS, potential direct and indirect impacts to the areas below the proposed airspace (e.g., noise, land use, and visual resources) would be less than significant relative to FAA thresholds presented in the approach to analysis. Further, noise impacts associated with the Proposed Action would be less than the USEPA threshold for areas where quiet is a recognized resource (USEPA 1974). Therefore, impacts to naturalness and solitude would be less than significant as well. Even if alternate locations for airspace establishment were available, the development of additional alternatives would not substantially reduce the impacts described for the Proposed Action.

ONDA (Austin)-3: The Painted Hills areas are shown in the Final EIS in Figure 3.3-5, just north of Highway 26 beneath the proposed Redhawk C MOA. While these areas are not identified by name within text/narrative of the Final EIS, the document analyzes land use beneath the Proposed Action area in Section 4.3, *Land Use and Visual Resources*. The proposed legislation that would have established the Sutton Mountain and Painted Hills Preservation Act was never enacted. However, impacts to these wilderness areas would be similar in context and intensity to those described for the other sensitive land uses located beneath the proposed airspace (refer to Section 4.3, *Land Use and Visual Resources*). In accordance with AFI 11-202, Vol. 3, and to the extent practicable and mission permitting, the USAF/ANG would conduct all training maneuvers above 2,000 feet AGL over national recreational areas, wildlife refuges, and wilderness areas.

Since the Proposed Action would not involve any ground disturbance, the primary effects of the Proposed Action on land use would be associated with visual resources and noise. Any notable increase in aircraft activity and associated contrails would by their nature be transitory and short-term visual intrusions, which would not permanently block or obstruct views of visual resources from any vantage point. Further, with the exception of Warning Area (W-) 570 and the Juniper Low MOAs, the proposed airspaces would have a floor of 11,000 feet MSL. Under the Proposed Action, none of the areas beneath the affected or proposed airspaces would experience noise levels greater than or equal to the 65 DNL threshold. In fact, noise levels would remain well below 55 DNL which is the USEPA's recommended noise threshold for residential areas, farms, and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use (USEPA 1974; refer to Section 4.2, *Noise*). Consequently, direct and indirect impacts to sensitive land uses below the proposed airspaces would be less than significant, as described in the Final EIS.

ONDA (Austin)-4: As recognized in the Final EIS, tourism, particularly outdoor recreation, is an important industry throughout the State of Oregon, representing approximately nine percent of employment, and four percent of total non-farm industry sector earnings throughout the state. The quiet, natural settings in rural Oregon are an important component of outdoor tourist attractions and recreation. While the Proposed Action would introduce additional flight activity above some of these areas, the activity in the proposed Eel MOAs and Redhawk MOA Complex as well as the majority of the Juniper/Hart MOA Complex expansion area (i.e., Hart C, Hart D, Hart E, and Hart F) would occur at or above 11,000 feet MSL and would result generally in inaudible sound levels at the ground surface that would not substantially or noticeably disrupt activities below the affected airspace; therefore, the Proposed Action would not have significant impacts on recreation or tourism. Further, flight activity within the proposed Juniper East Low MOA would not result in noise impacts that would exceed the USEPA's recommended noise threshold for residential areas, farms, and other outdoor areas where people spend widely varying amounts of time

and other places in which quiet is a basis for use (USEPA 1974; refer to Section 4.2, *Noise*). Refer to the discussion regarding sensitive land uses in Comment Response ONDA-3.

ONDA (Austin)-5: Following publication of the Draft EIS and after the public comment period closed, the USFWS determined that the greater sage-grouse is not warranted for federal listing under the Endangered Species Act (ESA) (80 Federal Register [FR] 59857; October 2, 2015). Within that Federal Register, it is noted "the behavioral response of sage grouse to overflight noise has not been examined." However, within Oregon, the ODFW has developed the *Greater Sage-Grouse Conservation Assessment and Strategy for Oregon: A Plan to Maintain and Enhance Populations and Habitat*. This plan includes identification of "Core Areas" of habitat warranting protection, limiting hunting and harvest restrictions, limiting construction activities within greater sage-grouse habitat during breeding season from one hour after sunset to two hours after sunrise[4], and restricting off-highway-vehicle use to areas more than two miles from nesting areas during breading season as well as other measures intended to mitigate potential disturbance. None of the proposed high MOAs (Juniper C and D, or Hart C, D, E, and F), which have a floor of 11,000 feet MSL, would generate sufficient noise to disturb sage-grouse (refer to Section 4.2, *Noise*). However, as shown in Figure 3.4-2 there are a number of sage-grouse Core Areas beneath the proposed Juniper East Low MOA. The Nevada Department of Wildlife (NDOW) raised concerns during the scoping process that noise generated by low-flying aircraft may impact greater sage-grouse during its breeding season. Based on the minimum distance between the noise-generating aircraft and the Core Areas at the ground surface, estimated maximum noise exposure for greater sage-grouse during a fly over at 500 feet would be approximately 116 dB, with the greatest exposure occurring beneath the Juniper Low MOA and Juniper East Low MOA. As previously described, flight activity within the existing Juniper Low MOA and the proposed Juniper East Low MOA, combined, would total about 249 flight hours annually, distributed throughout the combined approximately 5,000-square-mile Low MOAs. Additionally, the 173 FW anticipates 35 percent of those hours would be flown below 1,000 feet AGL based on training syllabus requirements. Consequently, as reflected in environmental analyses presented in the Final EIS (Table 4.2-1, and Appendix E, *Noise*), maximum noise events resulting from direct aircraft overflights would be infrequent and of very short duration. Additionally, in order to avoid impacts to the greater sage-grouse leks (i.e., aggregations of breeding males), the Oregon ANG would avoid greater sage-grouse Core Areas to the maximum extent practicable during the breeding season (i.e., 1 March to 31 May; Harrell 2008) and would fly over these areas consistent with training syllabus requirements, as analyzed.

[4] The 173 FW typically schedules flight training no earlier than 9:30am local time and concludes training operations generally before 3:00pm local time. This is consistent with the ODFW Greater-Sage Grouse Conservation Assessment and Strategy for Oregon.

ONDA (Austin)-6: Refer to Comment Response ONDA-2. It is important to note that as a part of the Environmental Impact Analysis Process (EIAP) conducted by the USAF to comply with the NEPA, alternatives to the Proposed Action are carried forward for analysis only if they can accomplish/satisfy the purpose of and need for the Proposed Action. Any potentially significant impacts resulting from these alternatives are disclosed during the EIAP and are mitigated to the extent feasible. As discussed with ONDA during the Public Hearings, the EIS has concluded that the Proposed Action and its alternatives would have less than significant impacts on all of the resources areas that have been analyzed.

The ONDA scoping letter dated 12 July 2013 requested the analysis of the Eel MOA Expansion as a standalone alternative; however, this would not meet the purpose and need of the Proposed Action due to the sea-state requirements, which often preclude the use of this airspace as described in Section 1.5.5, *Establishment of the Redhawk MOA Complex*. The ONDA scoping letter also suggested the proposed expansion of the Juniper Hart MOA with alternate boundaries using Highway 205 as the eastern boarder for Hart C and Juniper D. As described in Section 2.3.2, *Evolution of the Proposed Action* and in Comment Response ONDA-2, relevant accommodations have already been incorporated into the Proposed Action and its alternatives; for example, the originally proposed configuration of the Juniper Hart Low MOA was previously revised to avoid the Steens Mountain Cooperative Management and Protection Area and NWRs in this area. The other MOAs in the Juniper/Hart MOA would be established at 11,000 feet MSL, which would result in less than significant impacts on the noise environment and associated indirect impacts on biological resources. In addition, the proposed expansion of the Juniper/Hart MOAs was further segmented to allow for activation of airspace "blocks" only when needed and in order to facilitate more responsible stewardship of the airspace by the Oregon ANG. There would only be 58.5 hours of total annual use within Hart C and 56 hours of annual use within Hart D. Consequently, impacts would be less than significant. Imposing additional restrictions on these airspace segments would not meet the purpose and need of the Proposed Action. Further, with regard to the Juniper/Hart MOA Complex, the originally proposed expansion of the complex extended further east – without segmentation – and started at 10,000 feet MSL instead of the currently proposed floor of 11,000 feet MSL (refer to Figure 2-4). Additionally, the originally proposed new Juniper/Hart Air Traffic Control Assigned Airspaces (ATCAAs) extended up to 70,000 feet MSL instead of 51,000 feet MSL. As potential conflicts with regional airspace users were identified, the originally proposed expansion of the Juniper/Hart MOA Complex has been refined to the current proposal. The EIS does not analyze establishment of the MOAs at 13,000 feet MSL, as it would not meet the purpose and need of the Proposed Action; at this altitude the airspace would not provide sufficient volume to support all of the required training activities. Further, while raising the floor of the airspace from 10,000 feet MSL to 11,000 feet MSL addresses a number of potential airspace management conflicts, raising the floor of the airspace by an

additional 2,000 feet would not substantially reduce the already less than significant noise impacts described for the Proposed Action.

ONDA (Austin)-7: ***The Final EIS has been clarified as a result of this comment.*** See Comment Response ONDA-3. Specific reference to these WSAs and LWCs have been added to Appendix G, *Land Use and Land Management*. However, impacts to these areas would be these same as those described in the Final EIS for areas beneath the affected airspace areas. Consequently, the inclusion of the subject WSAs and LWCs would not measurably change the impacts described for the Proposed Action in the Final EIS.

ONDA (Austin)-8: Refer to Comment Responses ONDA-3 and ONDA-7.

ONDA (Austin)-9: Refer to Comment Response ONDA-3. Noise impacts are described in Table 4.2-1 within Section 4.2, *Noise* of the Final EIS. Noise experienced beneath the proposed Eel MOAs and Redhawk MOAs would be 35.0 L_{dnmr}. (L_{dnmr} is the accepted metric for land use compatibility guidelines beneath SUA and represents the average for an entire month utilizing the busiest month.) Further, noise levels experienced beneath the newly established Juniper/Hart MOAs would be less than 40 L_{dnmr}. Under the Proposed Action, none of the areas beneath the affected or proposed airspaces would experience noise levels greater than or equal to the FAA's 65 DNL threshold. Further, noise levels would remain under 55 DNL, which is the USEPA's recommended noise threshold for residential areas, farms, and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use (USEPA 1974; refer to Section 4.2, *Noise*).

Other important concerns regarding aircraft operations within SUA include the number, intensity, and duration of individual noise events that contribute to the L_{dnmr}. Consequently, L_{dnmr} is generally supplemented with metrics describing instances of unpredictable, discrete short-term noise events that produce long-term average L_{dnmr}. Neither the FAA nor the USAF requires evaluation of SEL, but the Oregon ANG has elected to evaluate SEL for this analysis in an attempt to more fully and transparently address public concerns. As described in Section 4.2, *Noise* the number of events above 65 dB SEL would be less than 0.5 per day in all of the proposed MOAs. In summary, average noise levels would remain far below 55 DNL and events above 65 dB SEL would be very infrequent.

ONDA (Austin)-10: See Comment Responses ONDA-3 and ONDA-9. As described in Section 3.1, *Airspace Management*, SUA and Military Training Routes (MTRs) are fundamentally different in that MTRs are generally low- to mid-altitude flight paths that are traveled (i.e., used for training) at regular to semi-regular intervals in a single direction. In contrast, SUA is a defined boundary throughout which non-patterned flight operations are distributed. Sensitive land uses beneath MTRs may be incompatible based on the altitude and frequency of use. However, in the case of the subject airspace proposal, due to the size and altitudes of the SUA as well as the

relative infrequency of operations, indirect visual resources and noise-related impacts would be less than significant and would not be incompatible with land uses beneath the proposed airspaces.

ONDA (Austin)-11: As discussed in Section 3.1 and Section 4.1, *Airspace Management* night flying (between 10:00 p.m. and 7:00 a.m.) accounts for between 5 and 10 percent of total existing Oregon ANG operations and proposed operations within the proposed Eel MOAs and Juniper/Hart MOA Complex. Under the Proposed Action no night flying would occur within the Redhawk MOA Complex. As further described in Appendix E, the L_{dnmr} metric averages A-weighted sound levels, with an additional 10-dB penalty added to noise events occurring between 10:00 p.m. and 7:00 a.m. This penalty is intended to account for generally lower background noise levels at night and the additional annoyance of nighttime noise events. Accounting for night operations under the Proposed Action, with this penalty added, average noise levels would still be substantially below the FAA's 65 DNL threshold. Further, noise levels would remain under 55 DNL, which is the USEPA's recommended noise threshold for residential areas, farms, and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use (USEPA 1974; refer to Section 4.2, *Noise*).

ONDA (Austin)-12: Chaff consists of small, extremely fine fibers of aluminum-coated glass that disperse widely when ejected from aircraft. During a particulate test conducted by the USAF's Air Combat Command (ACC), chaff debris settled quickly, indicating that chaff does not remain in the air column for long periods of time. Similarly, flares emit a small quantity of visible smoke when initially ignited. However, the effect of this activity on visual resources is negligible due to the altitudes at which flares are deployed, to the small quantity released, and the relatively short (3.5- to 5-seconds) burn time. Chaff and flare are currently used within the existing W-570 as and within the Juniper/Hart MOA Complex; the Oregon ANG has received no complaints regarding their use. Flare use by the 142 FW is anticipated to take place during 1,081 training sorties per year; for each training sortie involving flares, an average of 15 flares would be released. The 173 FW training syllabus applicable to this environmental analysis requires pilots to expend flares during training operations. In accordance with training syllabi, pilots expend flares during 33 out of 46 syllabus sorties. The ANG has prepared Appendix I, *Wildfire Hazard Analysis* to further assess the need for and utility of additional restrictions on flare use. The necessity for flare use is highlighted in Appendix I, Section I.5. If site-specific concerns should arise, resource agencies (e.g., BLM) and individual military entities (e.g., USAF/ANG) could develop and enforce agreements to limit the use of chaff or flares near sensitive land uses such as NWRs and public recreation lands, or Native American reservations and population centers.

Though implementation of the Proposed Action would not impact terrestrial landscape elements (i.e., there are no ground-disturbing elements of the Proposed

Action), the addition of increased or newly introduced overflights and the occurrence of periodic aircraft-generated noise and aircraft contrails above scenic and otherwise sensitive land use settings may be perceived as annoying or intrusive. Any notable increase in aircraft activity and associated contrails would, by their nature, be transitory and short-term visual intrusions that would not block or obstruct views of any visual resource from any vantage point. Further, the modification would result in a larger volume of designated SUA available for aircraft maneuvering, resulting in a broader geographic distribution of training sorties and a reduced probability of visual and noise effects from any individual location below the airspace. Additionally, the activation time is expected to decrease under the Proposed Action, as more training could be accomplished in a larger airspace, shortening the required time of use. (Refer to Comment Response ONDA-3.)

ONDA (Austin)-13: Information regarding development of the Proposed Action and its alternatives is discussed in Comment Response ONDA-2 and ONDA-7. No alternate airspace locations were identified during coordination with the FAA that could support mission training requirements of the Oregon ANG. Further, reducing the dimensions from what is currently proposed would result in constrained airspace, providing little to no benefit, and therefore not meeting the purpose and need of the Proposed Action. As described in Section 2.3.2, *Evolution of the Proposed Action* and Comment Response ONDA-2, the current airspace proposal reflects an ongoing attempt to reduce potential conflicts with commercial and general aviation traffic, limit potential environmental concerns, and promote more responsible stewardship of airspace by the Oregon ANG. Noise impacts beneath the proposed airspace are described in Table 4.2-1 within the Final EIS. Noise experienced beneath the Eel MOAs and Redhawk MOAs would be 35.0 L_{dnmr}. Noise levels in the newly established Juniper/Hart MOAs would be less than 40 L_{dnmr} and noise levels within the existing Juniper/Hart MOAs would decrease. The number of events above 65 dB SEL would be less than 0.5 per day in all of the proposed MOAs. Further as described in Comment Response ONDA-2, impacts to visual resources would be less than significant. Consequently, even if alternate locations for airspace establishment were available, the development of additional alternatives would not substantially reduce the impacts described for the Proposed Action.

ONDA (Austin)-14: Refer to Comment Response ONDA-3.

ONDA (Austin)-15: Refer to Comment Response ONDA-3.

ONDA (Austin)-16: Noise modeling takes into account topography beneath the airspace. See Appendix E, *Noise* and refer Comment Response ONDA-13.

ONDA (Austin)-17: As described in Table 4.2-1, noise levels within the Juniper Low East MOA would be 46.3 L_{dnmr}, with virtually no events above 65 dB SEL. This is due to both the size of the airspace, and its relatively low frequency of activation/use (i.e.,

only 45 hours per year). Additionally, noise levels would actually be reduced within the existing Juniper Low MOA, which would experience 204 hours of activity per year, reduced from 243 hours under existing conditions.

ONDA (Austin)-18: Refer to Comment Response ONDA-6.

ONDA (Austin)-19: Refer to Comment Response ONDA-5.

ONDA (Austin)-20: Refer to Comment Responses ONDA-2 and ONDA-6.

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August 3, 2015

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Re: Draft Environmental Impact Statement for Proposed Establishment and Modification of Oregon Military Training Airspace

Dear Mr. Marek,

The Aircraft Owners and Pilots Association (AOPA) submit the following comments to the National Guard Bureau (NGB) in regards to the Draft Environmental Impact Statement (DEIS) for the establishment and modification of military training airspace in Oregon. The proposal would create new Military Operations Areas (MOA) and Warning Areas in close proximity to general aviation airports, commonly used Victor airways, and VFR aircraft training areas and flight corridors. AOPA believes the establishment and expansion of this Special Use Airspace (SUA) would have a negative impact on general aviation in the Northwest United States region in terms of safety and accessibility.

Juniper East Low MOA

The Juniper East Low MOA would increase the overall size of the existing Juniper MOA by over 10 NMs to the east and would be effective from 500' AGL to 11,000' MSL when active. This would have serious implication on the Burns Municipal Airport (KBNO) which is just barely outside of this proposed expansion. This airport has over 5,000 aircraft operations per year with the majority being transient. They rely upon accessibility in order to receive these transient aircraft and thus to be self-sustaining. Extending this airspace could have serious economic implications if access to this airport was prevented from the east. AOPA-1

Airway V357 transits through the existing Juniper MOA from Lakeview VORTAC (LKV) to Wildhorse VOR/DME (ILR). Currently V357 is restricted to below 11,000' MSL when Juniper MOA is activated. This means IFR traffic are constrained between areas of high elevation below (nearly 6,000' MSL) and dangerous aerial activity above. The addition of Juniper East Low would further impact this airway by making it all but unusable to IFR traffic unless air traffic control and conditions could accommodate. Pilots must flight plan and expect to have to circumnavigate a huge amount of airspace in order to fly to BNO from the east. VFR traffic could still fly to BNO from the east but would need to transit through the MOA, possibly when the military is utilizing the airspace. AOPA-2

This MOA would further impact the RNAV (GPS) RWY 30 instrument approach procedure into BNO. A feeder route for this approach which would allow pilots to proceed to the Initial Approach Fix (IAF) and join the approach would be negatively affected as NIDIC intersection AOPA-3

would now be within this MOA. The FAA has established guidance on MOA floors in JO 74002.K and expect the floor of a MOA to be above 1,200' AGL unless "mission requirement exists and there is minimal adverse aeronautical effect." This FAA Order further states "provisions must also be made to accommodate instrument arrivals/departures at affected airports with minimum delay." The impact to this instrument approach procedure could cause greater delay to arrivals at BNO and have an adverse aeronautical effect.

AOPA-3 (cont.)

Eel MOAs

Proposed Eel MOAs A, B, C, and D overly Port of Ilwaco Airport (7W1), Astoria Regional Airport (AST), Seaside Municipal Airport (56S), Nehalem Bay State Airport (3S7), Tillamook Airport (TMK), Pacific City State Airport (PFC), and Siletz Bay State Airport (S45). The MOA would have a floor of 11,000' MSL and extend from W-570 to many miles inland.

AOPA-4

Several existing airways would be impacted and limited by the MOAs having a base altitude of 11,000' MSL. The Astoria VOR/DME (AST) to Newport VORTAC (ONP) route on V27 has a Minimum Enroute Altitude (MEA) as high as 8,000' when northbound. IFR traffic on this airway along the coast would have few altitude options should the MOA be active. Other airways impacted include V112, V182, and V187. Ensuring these airways are available to IFR traffic is critical to ensuring accessibility to the airports below and for transients heading to northern or southern Oregon.

AOPA-5

Flying the coast is a popular VFR method of navigation. Should these MOAs be active, VFR traffic would need to constantly be on alert due to the unusal flight activity taking place around them. A popular sight-seeing flight route would become impacted by additional SUA in this area. The AOPA Air Safety Institute offers courses on SUA airspace in order to highlight the activities in MOAs and educate pilots how to be competent in SUA procedures so they can confidently and safely fly through MOA airspace. We encourage our members to check with FSS or the controlling agency on SUA status.

Redhawk MOAs

The proposed Redhawk MOA's would adversely impact several airways should the base altitude be set at 11,000' MSL. Due to high elevation and other factors, the MEA for many airways crisscrossing the planned MOA area are already slightly below or above 11,000' MSL. The critical Kimberly VORTAC (IMB) is within this impacted area and has several Victor airways emanating from it that have MEA's at or above 9,000' MSL. According to the Instrument Procedures Handbook, the MEA "is the lowest published altitude between radio fixes that assures acceptable navigational signal coverage and meets obstacle clearance requirements between those fixes." This means IFR traffic flying lower than the MEA in this area would not likely be feasible or safe. These airways may become unavailable and require pilots to fly many miles out of their way and at a high cost in fuel.

AOPA-6

Economic Impact of Oregon Airports

Oregon airports provide a large contribution to the State economy per the Oregon Aviation Plan. The 2007 report showed all public-use airports in the state contributed more than $8 billion but the number grows to over $9 billion by 2014. It is important to mention that the 2014 report studied only half of the airports the 2007 report did so the contribution could be much bigger.

AOPA-7

Thousands of jobs in the state and many aviation and non-aviation businesses rely on the millions of dollars that are spent by those who fly in to the smaller airports of Oregon from elsewhere.

According to the 2007 report, the nine Oregon airports listed in Table 3.1-1 of the DEIS account for over 2,000 jobs, $60,400,000 in wages, and have business sales of $206,391,000. The placement of these MOA's could have a negative impact on these smaller airports which rely on accessibility. Although AOPA encourages members to educate themselves on how to safely navigate through MOA airspace, we know from a 2003 survey that 73% of GA pilots deviated around SUA. A survey taken in 2005 revealed that 68% of GA pilots deviate around SUA. Fixed Base Operator's (FBO) rely heavily on fuel sales and, should fewer pilots stop in because they are avoiding the MOA, their revenue could drop dramatically. The 2014 report highlighted that over 700,000 people visit the state via general aviation. Making it harder for visitors to fly to these smaller airports could hurt not only the airports but also the local economy.

AOPA-7 (cont.)

Conclusion and Recommendations

For the reasons stated above, the AOPA believes the proposal outlined in the DEIS would adversely impact general aviation. We believe measures should be taken by the NGB to adequately accommodate civil aviation and preserve the airspace accessibility in regards to their final proposal and EIS. The AOPA has several recommendations in this area that we believe could improve access and safety:

- Juniper Low MOA currently has a listed time of use of "by NOTAM, 2 hours and 30 minutes in advance, daylight hours." This does not allow flight planning as a pilot could take off and find out enroute a MOA has made his airway unavailable. The pilot may be forced to fly at a lower altitude that could have adverse winds or force him to be closer to high terrain. A fuel stop may even become necessary. Increasing the required notice for all proposed and current MOAs to be active should be a minimum of 24 hours in advance, with a preference for greater than 48 hours.

- Any change in airspace configuration must coincide with the VFR charting cycles to ensure the flying public is aware of the change. Safety could be significantly impacted should the airspace change be made before the change is charted and widely disseminated to pilots.

AOPA-8

- AOPA believes the NGB should consider higher base altitudes for MOA's as the availability of many airways could be greatly improved should the base altitude be increased just a few thousand feet. A base altitude of 15,000' MSL could allow the expansion of MOAs and improve the access to the IFR airways.

- The using authority must have a clear and efficient coordination and scheduling process to ensure MOA use is announced in as far in advance as possible and that it is widely disseminated to all users of the national airspace system. The activation process should be efficient but so should the deactivation process. Air traffic controllers must be told as quickly as possible when a MOA or Warning Area is no longer needed to be active so that IFR and VFR pilots can be made aware. This airspace should be made accessible to general aviation as much as possible.

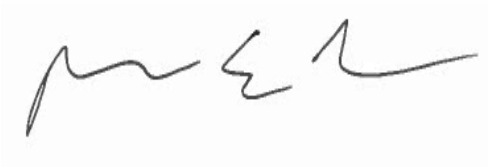
- AOPA encourages the NGB and FAA to formulate a letter of agreement detailing the procedures for access to the proposed SUA by IFR traffic. Allowing non-participating IFR traffic to safely transit the MOAs should be a top priority.

AOPA-10
(cont.)

The AOPA understands and supports the Oregon Air National Guard's need to train in order to have the readiness to support the national defense. We believe this training can be done in a manner that will not cause an undue negative effect on general aviation.

Thank you for the opportunity to comment on this important issue.

Sincerely,



Rune Duke
Director, Airspace and Air Traffic

The Aircraft Owners and Pilots Association (AOPA) is a not-for-profit individual membership organization of General Aviation Pilots and Aircraft Owners. AOPA's mission is to effectively serve the interests of its members and establish, maintain and articulate positions of leadership to promote the economy, safety, utility and popularity of flight in general aviation aircraft. Representing two thirds of all pilots in the United States, AOPA is the largest civil aviation organization the world.

Aircraft Owners and Pilots Association (AOPA) (Duke)-1: As discussed in Section 3.1 and Section 4.1, *Airspace Management* the Burns Municipal Airport is located approximately 13 miles to the northeast of the proposed Juniper B MOA and the Juniper East Low MOA. Given the distance between the airport and the proposed MOAs, as well as the proposed frequency of use, the proposed airspace is unlikely to have noticeable impacts on the airport. As currently proposed, the Juniper East Low MOA would extend from 500 feet AGL to 11,000 feet MSL and the Juniper B MOA would extend from 11,000 feet MSL to 18,000 feet MSL. As described in Comment Response DeCastro-1, all proposed new Oregon ANG airspace segments would only be activated on an as-needed basis – as a whole or individually – allowing for more responsible stewardship of the airspace regionally and helping to minimize conflicts with other users and reducing the overall amount of time an airspace area would be activated. Further, when a MOA is active, Instrument Flight Rules (IFR) traffic may be cleared to enter and pass through the area if adequate IFR separation criteria can be met and procedures are described in a Letter of Agreement between the unit and the Air Traffic Control (ATC) controlling agency (FAA Order 7400.2K). Nonparticipating Visual Flight Rules (VFR) aircraft are not prohibited from entering an active MOA; however, extreme caution is advised when such aircraft transit the area during military operations.

AOPA (Duke)-2: As discussed in Section 3.1 and Section 4.1, V-357 transits the existing Hart North MOA as well as the Juniper South and Juniper Low MOA. Under the Proposed Action, V-357 would transit the Hart A MOA, Juniper B MOA, and Juniper C MOA as well as the Juniper Low MOAs. Under the Proposed Action, annual flight activity in the existing airspaces would decrease substantially; flight activity within the Hart A MOA would be reduced from 205 hours to 188 hours; flight activity in the Juniper South MOA would be reduced from 1,278 hours to 624 hours; and flight activity within the Juniper Low MOA would be decreased from 243 hours to 204 hours. This overall decrease in flight activity within the existing airspaces could permit easier transit by general and commercial aviation within these areas. Under the proposed Action the Juniper C MOA would only experience 56 hours of flight activity annually and the Juniper East Low MOA would only experience 45 hours of flight activity annually. As described in Comment Response DeCastro-1, all proposed new Oregon ANG airspace segments would only be activated on an as-needed basis – as a whole or individually – allowing for more responsible stewardship of the airspace regionally and helping to minimize conflicts with other users and reducing the overall amount of time an airspace area would be activated. Further, when a MOA is active, IFR traffic may be cleared to enter and pass through the area if adequate IFR separation criteria can be met and procedures are described in a Letter of Agreement between the unit and the ATC controlling agency (FAA Order 7400.2K). Nonparticipating VFR aircraft are not prohibited from entering an active MOA; however, extreme caution is advised when such aircraft transit the area during military operations.

AOPA (Duke)-3: Mission requirements for the Juniper East Low MOA are described in Section 1.5.1, *Considerations for Military Training Airspace* and Section 1.5.4, *Expansion of the Juniper/Hart MOA Complex*. As described in the Final EIS, the potential environmental/socioeconomic impacts of the proposed Juniper/Hart MOA expansion would be less than significant.

AOPA (Duke)-4: These airports are named in Table 3.1-1 within Section 3.1, *Airspace Management* of the Final EIS. Each of these airports was considered during the analysis of environmental consequences provided in Section 4.1, *Airspace Management*.

AOPA (Duke)-5: As described in Section 3.1 and Section 4.1, *Airspace Management*, V-27 would transit beneath the floor of the Eel A, B, C, and D MOAs. V-112 and V-187 would transit beneath the floor the Eel A MOA and V-182 would transit beneath the floor of Eel D MOA (FAA 2013). As described in Comment Response DeCastro-1, all proposed new Oregon ANG airspace segments would only be activated on an as-needed basis – as a whole or individually – allowing for more responsible stewardship of the airspace regionally and helping to minimize conflicts with other users and reducing the overall amount of time an airspace area would be activated. Further, when a MOA is active, IFR traffic may be cleared to enter and pass through the area if adequate IFR separation criteria can be met and procedures are described in a Letter of Agreement between the unit and the ATC controlling agency (FAA Order 7400.2K). Nonparticipating VFR aircraft are not prohibited from entering an active MOA; however, extreme caution is advised when such aircraft transit the area during military operations.

AOPA (Duke)-6: As described in Table 2-3 within the Final EIS the Redhawk A MOA would only be activated/utilized 33 hours annually and the Redhawk MOA B and C MOAs would only be activated/utilized 167 hours annually, with individual activation events generally varying between one and two hours. Further, when a MOA is active, IFR traffic may be cleared to enter and pass through the area if adequate IFR separation criteria can be met and procedures are described in a Letter of Agreement between the unit and the ATC controlling agency (FAA Order 7400.2K). Nonparticipating VFR aircraft are not prohibited from entering an active MOA; however, extreme caution is advised when such aircraft transit the area during military operations. Nonparticipating IFR arrivals and departures will be handled with minimal delay. Airspace stakeholders (e.g., civilian and commercial pilots) can utilize the "siteFrame" application on the FAA website to view SUA and MTR schedules based on their geographic location or by airspace name. Information is available to pilots for planning purposes; the latest SUA information can be also accessed by calling a local Flight Service Station at 1-800-WX-BRIEF. Information concerning ATCAA airspace can be obtained from the Seattle ARTCC. Further, as described in Comment Response DeCastro-1, all proposed new Oregon ANG airspace segments will be activated on an as-needed basis – as a whole or individually – allowing for more responsible stewardship of the airspace regionally and helping to

minimize conflicts with other users and reducing the overall amount of time an airspace area would be activated.

The FAA Western Service Center conducted a separate aeronautical circularization to determine what impact, if any, this request has on the aviation community, and will apply that information to their decision to approve or deny the request.

AOPA (Duke)-7: ***The Final EIS has been clarified as a result of this comment.*** The provided information regarding the contribution of Oregon airports to the state's economy was incorporated into the Final EIS. Socioeconomic impacts related to the underlying airports are described in Section 4.9, *Socioeconomics, Environmental Justice, and Children's Health and Safety*. The proposed Eel MOAs and Redhawk MOA Complex as well as the majority of the proposed Juniper/Hart MOA Complex expansion areas (i.e., Hart C, Hart D, Hart E, and Hart F) would have operational floors at 11,000 feet MSL, which would separate Oregon ANG training from affected populations such that ground-based economic activity – including employment – would not be impacted. However, as described in the FAA's Airman's Information Manual (AIM), whenever a MOA is being used, nonparticipating IFR traffic may still be cleared through a MOA if IFR separation can be provided by ATC and procedures are described in a Letter of Agreement between the unit and the ATC controlling agency (FAA Order 7400.2K). Otherwise, ATC will reroute or restrict nonparticipating IFR traffic. Similarly, VFR traffic may transit through active MOAs and are encouraged to contact the controlling agency before doing so; however, extreme caution is advised when such aircraft transit the area during military operations. Consequently, while general aviation pilots may avoid MOAs as a matter of principle, the establishment of the MOAs would not preclude local flight traffic, and would therefore have a negligible economic impact on underlying cities or airfields that benefit from fuel sales or tie-down fees.

AOPA (Duke)-8: Please refer to Section 6, *Special Procedures* for a description of special procedures related to airspace management. Select procedures that address a number of the concerns raised in this comment include:

- Flying schedules for the Oregon ANG are currently filed weekly with FAA's Seattle ARTCC, the controlling agency of regional airspace.

- All proposed new Oregon ANG airspace segments would only be activated by the scheduling authority on an as-needed basis – as a whole or individually – allowing for more responsible stewardship of the airspace regionally, allowing use by others when not needed for Oregon ANG training, and helping to minimize potential conflicts with other users.

- The public would be notified of the activation of the proposed Redhawk MOA Complex through a Notice to Airmen (NOTAM), which would be filed with the FAA controlling agency.

- Airspace stakeholders (e.g., civilian and commercial pilots) can utilize the "siteFrame" application on the FAA website to view SUA and military training route schedules based on their geographic location or by airspace name.

- Information is available to pilots for planning purposes; the latest SUA information can be also accessed by calling a local Flight Service Station at 1-800-WX-BRIEF. Information concerning ATCAA airspace can be obtained from the Seattle ARTCC.

- Pursuant to applicable practice, when a MOA is active, IFR arrivals and departures will be afforded minimal delay (FAA JO 7400.2K). It is anticipated that other nonparticipating IFR aircraft may obtain access consistent with the FAA Joint Use Policy and the anticipated Letter of Agreement. Nonparticipating VFR aircraft are not prohibited from entering an active MOA; however, extreme caution is advised when such aircraft transit the area during military operations.

With regard to the request for raising the floor of the proposed MOAs, please see Comment Response ONDA-6. Airspace with a floor of 15,000 feet MSL would not meet the purpose and need of the Proposed Action; at this altitude the airspace would not provide sufficient volume to support all of the required training activities.

Subject: RE: Oregon Airspace Initiative EIS

-----Original Message-----
From: Paul Speer [mailto:pbspeer@gmail.com]
Sent: Monday, August 03, 2015 11:59 AM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: Oregon Airspace Initiative EIS

As a citizen I am very sensitive to ANG's role and the importance of well trained pilots and support crews so am not in the generic "just say no" camp with these sort of proposals.

That said, from a GA pilot standpoint any expansion of special airspace obviously comes with a price so needs to be looked at carefully.

The expansion inland at the coast with floor at 11,000 over the coast range is the one that causes me to take pause. There is one airway that runs down the coast that I know is used by local pilots, both VFR and IFR that will be right in the center of the expanded area. Also, off airway flights across the cost range from the Willamette valley by GA aircraft are routine. If there was a way to either push this expansion back out over the ocean, or to meaningfully raise the floor it would certainly be preferable for GA in the area, in my opinion. Speer-1

Regards,

Paul Speer

AOPA Airport Support Network Volunteer Pearson Field KVUO

Outgoing Chair Pearson Field Aviation Advisory Committee City of Vancouver

ASEL Commercial Instrument Rating

N97627

AOPA (Speer)-1: As described in Section 4.1, *Airspace Management* all proposed new Oregon ANG airspace segments would only be activated on an as-needed basis – as a whole or individually – allowing for more responsible stewardship of the airspace regionally and helping to minimize conflicts with other users and reducing the overall amount of time an airspace area would be activated. Further, when a MOA is active, IFR traffic may be cleared to enter and pass through the area if adequate IFR separation criteria can be met and procedures are described in a Letter of Agreement between the unit and the ATC controlling agency (FAA Order 7400.2K). Nonparticipating VFR aircraft are not prohibited from entering an active MOA; however, extreme caution is advised when such aircraft transit the area during military operations.

To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: RE: air space comments

-----Original Message-----
From: Edward DeCastro [mailto:edwarddecastro@yahoo.com]
Sent: Wednesday, July 29, 2015 4:18 PM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Cc: Air Safety Institute
Subject: air space comments

There exists contiguous military use airspace from California to Oregon. Additionally, the USAF was granted more military airspace over Montana and Wyoming, reaching nearly to Oregon. The continued militarization of our airspace will simply hurry the death of general aviation, which seems to be the goal of the government. I oppose this proposal as I opposed the military expansion of the airspace over Montana and Wyoming. DeCastro-1

Stop the militarization of our nation's airspace!

Edward A. DeCastro

NOTICE: Due to Presidential Executive Orders, the National Security Agency (NSA) may have read this email without warning, warrant, or notice. They may do this without any judicial or legislative oversight. You have no legal recourse, nor protection from this intrusion on your personal freedoms. You may not review your file which is secret. The President reserves the right to use "signing statements" to give himself permission to ignore the law, as he is above accountability.

Never trust a government you can't shoot

PRIVATE CITIZENS

DeCastro-1: Existing regional airspace is depicted in Figure 3.1-2 within the Final EIS. As described, the majority of Oregon's coastline is overlaid by existing military airspace including the Bass ATCAAs, W-570, Eel ATCAA, and Dolphin MOAs. However, as described in Section 1.5, *Purpose and Need for the Proposed Action*, frequently present weather conditions along the Oregon coast and associated sea-states that prohibit over-water training represent a significant impact to training and foster the need to establish a MOA beneath the existing Eel ATCAA to expand the vertical confines of the existing airspace and facilitate required training. Current backup airspace (i.e., the Juniper/Hart MOA Complex) is located far away (as far as 140 nautical miles [NM]) and additional transit hours used to fly to and from this airspace waste fuel and inefficiently use allocated flight hours originally allocated/intended for training. Similarly, military training airspace over Montana and Wyoming is located even further away, and for that reason (among others) is not used by the Oregon ANG.

As described in Section 2.3.2, *Evolution of the Proposed Action*, revisions to the originally proposed configuration reflect an attempt to reduce potential conflicts with commercial and general aviation traffic, limit potential environmental concerns, and promote more responsible stewardship of airspace by the Oregon ANG. All proposed new Oregon ANG airspace segments would only be activated on an as-needed basis – as a whole or individually – allowing for more responsible stewardship of the airspace regionally and helping to minimize conflicts with other users and reducing the overall amount of time an airspace area would be activated. Further, pursuant to applicable practice, when a MOA is active, IFR arrivals and departures will be afforded minimal delay (FAA JO 7400.2K). It is anticipated that other nonparticipating IFR aircraft may obtain access consistent with the FAA Joint Use Policy and the anticipated Letter of Agreement. Nonparticipating VFR aircraft are not prohibited from entering an active MOA; however, extreme caution is advised when such aircraft transit the area during military operations.

To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: RE: Oregon Airspace Initiative EIS

-----Original Message-----
From: Mark Donnelly [mailto:donnelly.m@mac.com]
Sent: Wednesday, July 29, 2015 5:23 PM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: Oregon Airspace Initiative EIS

Oregon National Guard,

I am very concerned with the proposal to add more Military Operations Areas to the Oregon air space. You already have huge swaths of airspace dedicated to MOAs in eastern and coastal Oregon. As a private pilot, I pay for my own gas and have to fly long distances to avoid the MOAs. It is costly to me and sometimes increases my risk because of the terrain I must transit and the altitudes I must fly to avoid the existing MOAs. Please do not add MOA airspace to Oregon. There's already plenty of reserved space for training the Air National Guard. Seriously, what has changed in your mission that creates the requirement to grab more airspace away from the public NOW, after 14 years of constant war? Donnelly-1 Donnelly-2

Best regards,
Mark Donnelly

Donnelly-1: Refer to Comment Response DeCastro-1.

Donnelly-2: Please refer to Section 1.5, *Purpose and Need for the Proposed Action*. The overarching purpose of the Proposed Action is to provide properly configured and located military airspace to provide efficient, realistic mission-oriented training with adequate size and within reasonably close proximity to support advanced 21st Century air-to-air tactical fighter technologies and the current and evolving training requirements of the Oregon ANG in an era of increased operational complexity.

The overarching need for the Proposed Action is driven by several factors including travel distance and time required to access existing training airspace areas; and the frequency of weather conditions that limit the availability of coastal airspace areas for operational training. This results in loss of training time as fuel and flying hours are used to access back-up airspace. Details related to the units' training missions and objectives and requirements driving specific components of the Proposed Action are further described in Section 1.5, *Purpose and Need for the Proposed Action*.

To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: RE: Air space

-----Original Message-----
From: B MORITZ [mailto:bmoritziii@me.com]
Sent: Thursday, July 30, 2015 2:36 PM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: Air space

You do not need to increase airspace you have too much as it is. Use what you have. Your increase airspace cost me addition me Money in flying around it and increase my risk. Moritz-1

Sent from my iPhone

Moritz-1: Refer to Comment Response DeCastro-1.

Subject: RE: Oregon Airspace Initiative EIS

-----Original Message-----
From: Leonard Naidoff [mailto:naidoffl@charter.net]
Sent: Tuesday, August 25, 2015 4:51 PM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: Oregon Airspace Initiative EIS

Sirs and Madams:
Having missed the previous comment period (17May2013) and being unable to attend the meetings in Tillamook on 11Aug2015 and Astoria on 12Aug2015, I appreciate the accommodation here and now to comment via email regarding your proposed Oregon Airspace Initiative EIS Draft.

I, and others here in Cannon Beach, Oregon are vehemently OPPOSED to your Training Plans as proposed in your Draft.

Here's why. It seems curious that you are now requesting permission to invade our airspace because it is already happening. I have been aware of numerous daily flyovers in recent past, some slow and low, then with thrusters activated, zooming off like a rocket. Also up high with telltale contrails (we count them now and saw one today around 0945 out east of town heading south) and at times what sounds like dogfighting with multiple jets. We once were plagued by sonic booms and that is always a unwelcomed threat. Cannon Beach was once evacuated when a boom was mistaken for an earthquake. Stupid but true. Does any of this sound like something you might expect in your own neighborhoods? Naidoff-1 Naidoff-2

Our present airspace is overactive now, with the constant Coast Guard copters flying and a tourist copter constantly flying and civilian aircraft and an occasional biplane and a vintage WW2 plane droning about. Add your zooming about and it is too much to endure. A veritable warzone. I find the talk of an "Asian Pivot" repugnant. I should know being a Vietnam 100% disabled veteran with PTSD who has lived in Cannon Beach for 39 years in peaceful bliss who now is felling stressed and vexed over your plans. Please take your flights elsewhere like metro PDX or train in simulators or over the desert. What exactly are you training for? Naidoff-3

One last comment about your environmental impact. Is it ever a good idea to continually tear up the atmosphere with craft and not injure it and us humanbeings in the longterm? Please consider that in your Draft. We here in Cannon Beach value our precious home environment more than each singular life. Please don't add to any further degradation. Thank you. Naidoff-4

Leonard Naidoff
Cannon Beach Oregon

Naidoff-1: As discussed in Section 1.5, *Purpose and Need for the Proposed Action*, military training airspace currently exists from 18,000 feet MSL to 50,000 feet MSL over the Northern Oregon coastline. The purpose of the proposed action is to provide properly configured military airspace to provide efficient, realistic mission-oriented training with adequate size and within reasonably close proximity to support 21st Century tactical fighter technologies and the current and evolving training mission requirements of the Oregon ANG in an era of increased operational complexity. Addressing current noise concerns is beyond the scope of this EIS. However, the potential for environmental impacts associated with the proposed action has been fully assessed in the EIS.

Naidoff-2: ***The Final EIS has been clarified as a result of this comment***. Please refer to Section 3.2.2.3 and 4.2.2.1 for a discussion and explanation of Oregon ANG supersonic activities. There is no Oregon ANG supersonic activity in the area identified by this comment (i.e., Cannon Beach). However, potential noise impacts associated with supersonic activities under the Proposed Action has been clarified in the Final EIS. Overwater airspace within the existing W-570 is uniquely suited for air-to-air combat training. This airspace provides the Oregon ANG with the ability to fly supersonic at altitudes as low as 10,000 feet MSL, which supports realistic mission oriented training for combat readiness. However, overwater Oregon ANG pilots along reach supersonic speeds when more than 15 NM offshore and with the nose of the aircraft pointed away from the coastline. Consequently, potential impacts to residential communities along the coast would be negligible. As discussed during the Public Hearings for the Draft EIS, the Oregon ANG understands concerns regarding supersonic flight. Under the Proposed Action, the frequency of overland supersonic flights would not change. Supersonic activity would only occur offshore within W-570 above 10,000 feet AGL and within the Juniper/Hart MOA Complex above 30,000 feet MSL. The Oregon ANG will only conduct overwater supersonic activities a minimum of 15 NM from the shoreline, and only when parallel to or pointed away from the coastline.

Naidoff-3: Refer to Comment Response Naidoff-1.

Naidoff-4: As described in the Final EIS, the Proposed Action would have no impacts or negligible adverse impacts on the following categories: coastal resources; compatible land use; construction impacts; Department of Transportation Act Section 4(f); farmlands; floodplains; hazardous materials, pollution prevention, and solid waste; historical, architectural, archaeological, and cultural resources; light emissions and visual impacts; natural resources and energy supply; socioeconomic impacts, environmental justice and children's environmental health and safety risks; secondary impacts; water quality; wetlands; and wild and scenic rivers. The Proposed Action would also have less than significant adverse impacts on air quality; fish, wildlife, and plants; noise; and airspace management as described in detail in Sections 3 and 4 of the Final EIS.

Subject: RE: Oregon Airspace Initiative EIS

-----Original Message-----
From: Craig Reinholt [mailto:n51cr@comcast.net]
Sent: Sunday, August 16, 2015 6:52 PM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: Oregon Airspace Initiative EIS

Regarding the EEL MOA's, please understand that there is regular glider activity in these specific areas from April through October. Altitudes vary from 3000' to 10,000'. When conditions are favorable, there may be 15 or more gliders traveling back and forth through this area during daylight hours. Of those 15 gliders, maybe 3 will have transponders. If the MOA has 10,000' hard deck at all times, then the MOA initiative will be a non-issue to the Willamette valley glider activity. If not, we will regularly have conflicting traffic. If the MOA goes into effect to the ground, this initiative will effectively destroy soaring in Oregon. The Willamette Valley Soaring Club based at North Plains Oregon has 95 members. All other glider clubs and soaring operations combined in Oregon do not have near that many members.
If the bottom of the EEL MOAs are below 10,000, please cancel this portion of the proposed MOA initiative.

Reinholt-1

The size increase in the central Oregon MOA's is not as critical as the western Oregon MOA's, but it will impact the gliding club in Bend Oregon. These folks occasionally fly through the central Oregon MOA's. Also, gliders that originate in the Reno / Truckee, CA / Minden, NV area occasionally fly up to this area and return. The increased MOA size will make those flights more difficult to complete. Lastly, for many years, the Willamette Valley Soaring Club does an annual soaring event at the Alvord desert next to the Steen Mountains. They sometimes fly West into the Juniper and Hart MOAs. The increase in MOA size will severely limit the camps promotion and instruction of cross country soaring to our members.

Reinholt-2

As you can see, the Oregon Airspace Initiative EIS will severely impact many glider pilots (Oregon and out of state as well). Please reconsider and limit the dimensions OR completely remove the proposal.

Thank you.

Craig Reinholt
Soaring Society of America / Oregon Governor
875 E. 4th St.
Yamhill, OR 97148
h) (503) 662-0022

Reinholt-1: As described in the Final EIS (see Section 4.1, *Airspace Management*), the floor of the proposed Eel MOAs would be established at 11,000 feet MSL under the Proposed Action. All proposed new Oregon ANG airspace segments would only be activated by the FAA scheduling authority on an as-needed basis – as a whole or individually – allowing for more responsible stewardship of the airspace regionally, allowing use by others when not needed for Oregon ANG training, and helping to minimize potential conflicts with other users. Further, as described in Section 6, *Special Procedures*, flying schedules for the Oregon ANG would be filed weekly with FAA's Seattle ARTCC, the controlling agency of regional airspace. Airspace stakeholders (e.g., civilian and commercial pilots) can utilize the "siteFrame" application on the FAA website to view SUA and MTR schedules based on their geographic location or by airspace name. Information is available to pilots for planning purposes; the latest SUA information can also be accessed by calling a local Flight Service Station at 1-800-WX-BRIEF. Information concerning ATCAAs in the region can be obtained from the Seattle ARTCC.

Reinholt-2: See Comment Response Reinholt-1. As described in Section 4.1, *Airspace Management*, at least two recreational glider clubs, including the Willamette Valley Soaring Club and the Nevada Soaring Association, are known to use airspace in the vicinity of the Juniper/Hart MOA Complex. Outreach to the Willamette Valley Soaring Club is ongoing. Attempts by the Oregon ANG to communicate with the Nevada Soaring Association have not yet been successful and a dialogue has not been established to date.

While glider club operations within this area have the potential to result in airspace conflicts during certain discrete periods of the year, if the Proposed Action or one of its alternatives is implemented, the Oregon ANG shall develop a Memorandum of Understanding (MOU) to outline procedures that shall be implemented to ensure the continued safety of both glider and Oregon ANG pilots (see Section 6, *Special Procedures*). The Oregon ANG shall draft a MOU that shall include requirements to meet annually with the glider club representatives to discuss procedures. Among other topics, during these discussions the Oregon ANG shall communicate airborne operations, scheduling, and execution for both units. Glider pilots shall notify the 173 FW when there would be a desire to operate within Oregon ANG airspace. Both parties would agree upon deconflicting procedures.

To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: RE: Hearing Schedule on proposed airspace takeovers

-----Original Message-----
From: Joe Smith [mailto:joe@smithcompound.com]
Sent: Wednesday, July 29, 2015 2:57 PM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Cc: Mary Rosenblum; Paul Ehrhardt
Subject: Hearing Schedule on proposed airspace takeovers

To the Guard:

The absence of a hearing somewhere in the northern Willamette Valley is inexcusable. The vast majority of GA pilots in Oregon live in the Willamette Valley, and much, if not most, of the GA air traffic in the areas that would be affected by the proposed expansions originates from there. Please, schedule at least one hearing in Salem or the greater Portland area. Smith-1

Joe Smith
Regional Director, Oregon Pilots Ass'n

R.P. Joe Smith
Lawyer
2211 NE 21st Ave.
Portland, OR 97212-4623
503-287-6577

Smith-1: Portland is located approximately 40 miles to the east of the proposed Eel MOAs. Meeting locations in the vicinity of Portland were held at Tillamook (approximately 1.5 hours from the Portland area) and Astoria (approximately 2 hours from the Portland area), because these areas are located beneath the Proposed Action area along coastal Oregon. Further, the meeting at Astoria facilitated participation from the Port of Astoria and Astoria Regional Airport as well as the AOPA.

To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: RE: Oregon Airspace EIS

-----Original Message-----
From: Wayne Stonecipher [mailto:stoneyhill@aol.com]
Sent: Friday, July 31, 2015 12:30 PM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: Oregon Airspace EIS

It is noted that you have not scheduled an hearings in the most pilot/system-user dense area of the state, thus requiring undue travel burden on many of those who might otherwise participate in the discussion. Was this incidental or deliberate?

Please revise your schedule to include events in the central PDX area, ie. Aurora Airport, or at least in the Salem area which would be more central to include users in the southern region of Oregon.

Stonecipher-1

Wayne H. Stonecipher
Yamhill, OR

Stonecipher-1: See Comment Response Smith-1.

To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: RE: Oregon Airspace Initiative EIS

-----Original Message-----
From: Gary Strong [mailto:ponyblanket@frontier.com]
Sent: Wednesday, July 29, 2015 2:42 PM
To: USAF JB A-NAFW NGB A7 Mailbox A7A NEPA COMMENTS
Subject: Oregon Airspace Initiative EIS

Dear Sir:

I do not want any changes or additions to Oregon's military airspace.
I would rather it be reduced, especially over the High Desert areas.

General Aviation already faces too much red tape in Oregon.
Adding more restrictions and hoops to flying is incredibly counterproductive to pilot reward.

Please go fly elsewhere and leave the Oregon skies as free as they have been!

Gary Strong
Portland, Oregon

Strong-1

Strong-1: See Comment Response DeCastro-1.

Draft EIS Hearing Proceedings

August 11, 2015

Tillamook Air Museum

Tillamook, Oregon

SPEAKERS:

Major Stephan Bomar

Brigadier General Jeffrey Silver

Colonel Pete Teller

Lieutenant Alaric Michaelis

Jamie Flanders

Michele Cruz

* * *

P R O C E E D I N G S

MAJOR BOMAR: Thanks, everyone, for coming out. I'm Major Stephan Bomar. I'm the director of public affairs for the Oregon Military Department. I met with some of you out front. For your awareness, there's a tape recorder up here and we have a stenographer in the back recording everything for the record. We have a formal presentation that will take place, and then there will be time for questions and additional comments.

With that, the Commander of Domestic Operations Command is General Jeffrey Silver.

Sir.

BRIGADIER GENERAL SILVER: Thank you.

I have just a few comments for you guys before we let Colonel Teller and Lieutenant Colonel Michaelis do the formal part.

I am the domestic operations guy for the military for the state. I also was the operations commander at the 142nd Fighter Wing in Portland, and then I also worked down at the 173rd in Klamath Falls over the last few years.

Back in '08 I started working on this

proposal. We recognized that advances in the airplane and the need for weather backup airspace and increased volume of training due to Air Force requirements made us realize that needed to start working on more airspace to fulfill our training.

So we have three airspaces that we've been working on. I also am the assistant active General for air, so I'm very interested in the air matters that happen in the state, and then I'm on a national counsel for airspace. In fact, I'm one of the chairmen.

I oversee all airspace actions for the state. So I'm deeply involved in this kind of stuff. We're very interested in hearing what comments and concerns you guys have tonight.

Knowing that this is an environmental hearing we're keen on what might be noise problems or particulates that might come off the airplanes or something like that. But we're also interested in other issues that you might have, so speak about those and we'll take them down, and then they would go forward to the FAA's aeronautical process.

I'll get off the stage here. Colonel Teller and Lieutenant Michaelis are going to do the formal part, like I said, and then we will be around to talk to you guys or answer any questions you might have

after.

Thanks for being here.

MAJOR BOMAR: Thank you, sir.

Now for the formal part of our hearing, Colonel Pete Teller.

COLONEL PETE TELLER: Good evening, everyone. I'm Colonel Pete Teller. I'm an Appellate Military Judge of The United States Air Force from Joint Base Andrews, Maryland.

I'd like to make it clear from the outset that I'm here in my capacity as a Federal Judge solely to act as a moderator in this hearing. The Air Force Trial Judiciary is an independent organization. I do not work for or with anyone in this room. I'm not a member of this command or assigned to the Oregon Military Department. I report directly to the Judge Advocate General of the Air Force.

I have had no involvement with the preparation of this proposed action or the Environmental Impact Statement. I have not rendered legal advice or assistance with respect to this action.

I'm here tonight to serve as an independent public hearing officer regarding the Draft EIS. I'm responsible for providing everyone an opportunity to comment tonight on the proposed action, alternatives,

and associated environment analysis.

This public hearing provides you with the formal opportunity for comment. I do not make any recommendation or decision on whether the proposed project should be continued, modified, or abandoned, or how the EIS should be prepared. Therefore, during the public comment portion of his hearing, I urge you to direct your comments to the individuals on our panel.

The purpose of this public hearing is to provide you with an opportunity to comment on the findings of the Draft Environmental Impact Statement.

More importantly, this hearing is a formal opportunity for you to get involved in the National Environmental Policy Act (NEPA) process.

This hearing is scheduled to conclude at 9 p.m., but if necessary will continue until all comments have been received. This formal session may end before 9 p.m. if there are no more comments.

However, the overall hearing, including materials to be viewed and discussions with team members individually, will continue until all parties have left the meeting.

If following the presentation any members of the audience have questions regarding clarification of any points you may not have understood, you may fill

out a question card, which can be found at the registration desk, or on several tables throughout the room; or you may raise your hand and someone will bring you a card. Once you have filled out your question, please raise your hand again and one of our staff will collect them.

Only questions regarding clarification of the topics presented will be entertained. General comments on the action will not be read by our panel, but you may present your comment orally or submit it on one of the comment cards.

We will take a ten minute break to allow Lt. Col. Michaelis, the 142nd and 173rd Fighter Wing staff, National Guard Bureau staff, and the environmental consultants to review any questions submitted and identify the best person to answer each one.

After the break we will answer any questions we've received on the question cards from the audience. Once the question has been answered, members of the audience who checked the box on their registration card indicating their desire to provide oral comments will be asked to come forward.

Registration cards were available at the registration table as you came in. If you've not

filled out a card or indicated your desire to speak and wish to do so, please raise your hand and a card will be provided you now.

In addition, there are materials at the door describing the official Air National Guard proposal, the description of the proposed action and alternatives, and information on locations where you can review the Draft ESI statement after you leave tonight, if you've not already done so.

To ensure that all interested citizens have an opportunity to speak, I reserve the right to limit the comments to an appropriate time. If time allows after everyone has an opportunity to provide their comments, you may have more time. You will only be allowed to comment when your name is called. Elected officials and individuals representing organizations will be called upon first.

As a reminder, a stenographer is recording these proceedings for the record. We'll take a ten minute break every hour to allow the stenographer to take a break.

At this time -- well, skip that.

Throughout this hearing I ask that you to keep in mind that this public hearing is not a debate or any type of vote on the Draft EIS; nor is it

primarily designed as a question and answer session, although legitimate, clarifying questions may be asked.

At the conclusion of the hearing you may discuss the findings with the Draft EIS in greater detail with the staff members from 142nd and 173rd Fighter Wings, National Guard Bureau, and the consultant's technical representative.

I would also like to point out that this hearing is focused solely on the NEPA process and the Draft EIS. The Federal Aviation Administration, represented by Michele Cruz, will review the aeronautical implications of the Action in a separate process.

If you do not wish to provide oral comments, written comments will be accepted, and will be given equal consideration. Even if you do make an oral statement, you're welcome to also provide a written statement to reaffirm the comments you made, and provide any additional comments you'd like to make.

Written comments should be sent to the National Guard Bureau at the address printed on the comment form that you filled out, or via the project website. The email address is also provided on the comment sheets.

All relevant, substantive comments will be

included in the administrative record, and will be addressed in the final EIS. The formal comment period for the Draft EIS ends on September 8, 2015.

It is a requirement to inform you that under the Privacy Act of 1974 your name, address, and comments, if provided during this NEPA process will be used to compile mailing lists for sending project reports, brochures, and other information concerning the ESI to interested individuals and groups.

It will also be forwarded to Federal, State, and local agencies, and elected officials.

The addresses of the private individuals submitting comments will not, I repeat will not be published in any documents released to the public.

Failure to provide the information requested will prevent delivery of documents and notifications of further development. However, electronic copies of documents are available on the project website and in select libraries, with locations published in local newspapers.

Before we proceed with the presentation, if you have not reviewed a copy of the Draft EIS, copies are available for you to review while in attendance at this hearing at each of the information booths.

Further, you may pick up a CD with the

document on it at the check-in desk. If you did not receive other information materials that were available, please raise your hand and somebody will provide them to you.

At this point I will turn this over to Lt. Col. Alaric Michaelis, the Director of Operations for the Oregon Military Department.

LT. COL. MICHAELIS: Thank you, Your Honor.

Thank you very much for letting me come up and be the guy that gets hanged if anything goes wrong. Ben, I've met you. I missed your name. Todd, thank you. Okay, you guys, hold your comments until the end. There's a lot of you here.

No kidding, I want to apologize for the very formal scripted nature of the business, and that's just kind of it way goes. No kidding, when we're done with this, by all means, let's sit down and have a nice conversation if you have questions.

So, good evening. My name is Lt. Col. Michaelis. I'm the Director of Operations for the Oregon National Guard, which basically means I'm in charge of all things related to air for Oregon State, which includes this Airspace Initiative.

I'm also an F-15 Instructor Pilot and Evaluation Pilot down at Kingsley Field, so I fly with

those guys down there.

I want to welcome you to this important public hearing regarding the Draft Environmental Impact Statement for the proposed establishment and modification of Oregon Military Training Airspace.

Our goal this evening is to provide you with information about the proposed airspace action and the National Environmental Policy Act, commonly referred to as NEPA, and to facilitate your participation in and understanding of this process.

I would like to apology for the formality and scripted nature of the hearings. I look forward to having a real conversation with you during the breaks and after the formal proceedings.

Before I get started I'd like to introduce you to the individuals who are here this evening to assist in answering some of the questions about the airspace proposal, and to facilitate your participation in commenting on the findings of the Draft Environmental Impact Statement.

You've already met Col. Teller from Headquarter Air Force; General Silver. Back in the back, the other guy with the flight suit that's looking at all the cool airplanes, that's Col. Pappy French. He's actually one of the architects of the Airspace

Initiative, and one of the smarter guys on the panel.

Next we have Jamie Flanders, National Guard Bureau Airspace Manager. Devin Scherer, he's in the back there, he's also with the National Guard on-site support. We've got a bunch of other people in the back, as well, and they are helping us to develop the Environment Impact Statement. They're all from the Air National Guard, the National Guard Bureau, and our environmental consultants with Amec Foster Wheeler. And we've got Michele Cruz from the FAA, as well.

They will all be available after the current formal session to answer questions and to help facilitate this process. You will find that anyone in a uniform or name tag can either answer your questions or direct you to an individual who can.

The Oregon communities surrounding the 142nd Fighter Wing in Portland and the 173rd Fighter Wing in Klamath Falls are important to us, and community input is important to the environment analysis. Many you have been consistently supportive of the military and the Oregon Air National Guard, and this support is deeply appreciated. I thank you for that.

Like you, our Guardsmen and women live and work in Oregon and care deeply about its future. As

Guardsmen, many of our members work full time in their communities and support the Oregon Air National Guard by fulfilling their monthly and annual training requirements. We are all proud to be part of this community.

On a personal note, I myself trained to fly the F-15 in 2002 at Kingsley Field in Klamath Falls while I was still in the Active Duty Air Force. My wife, two daughters, and I fell in love with Oregon and I joined the Oregon Guard after my 11 year active duty commitment, and we plan on staying in Klamath Falls well after my retirement.

I'm an active community member and general aviation enthusiast, so this Airspace Initiative impacts me, just as it impacts you. What we hope to show you is that this Airspace Initiative is good for the community, good for the Air Force pilots, good for the United States Air Force, and ultimately good for America.

We make every effort to be good stewards of the Airspace. For example, we have fairly regular flying schedules, and generally only activate the Airspace a few hours at a time, twice a day. General aviation can de-conflict with time, or if unable with altitude, below 11,000 feet; or worst case, let us know

that you're going to be flying in that Military Operations area, the MOA, under visual flight rules and we will de-conflict with you.

When the weather precludes VFR in the MOA, then we will generally not be in the MOA, therefore we will not be a conflict. The airspace is much higher than any of your instrument approach procedures, and should have no influence on general aviation coming in or out of the area. We'll work with you to ensure as little inconvenience as possible, and to ensure no negative economic impact.

It's worth mentioning here that the 142 FW in Portland contributes $140 million annually to the economy, and 173 FW at Kingsley Field contributes $118.9 million annually. It is also the third largest employer in Klamath Falls. This is not the purpose of the EIS, however. The EIS is to discover and report the impact to the environment this Airspace Initiative has.

The EIS spells out in detail our mission and why we need this airspace. In the interest of time and to allow you to voice your questions and concerns, I will merely give you a brief summary and give you the bottom line upfront: The F-15C mission is air superiority, and that's period that. It has a 104 to

zero combat record, and has helped keep American troops unmolested from the air since it was put in service in 1976.

At Kingsley Field we are the sole F-15C Fighter Training Unit, so every F-15C pilots, known as an Eagle Driver, comes through Kingsley Field. As such, our mission is to produce the best air-to-air combat pilots, and serve our state and nation in times of peace and war.

Portland's 142nd FW's mission is to provide 24-hours continuous air defense and air sovereignty capabilities in support of homeland defense. As part of the Air Expeditionary Force, the unit is also tasked with maintaining a world-wide deployable combat fighting capability.

And, in fact, the 142nd is currently deployed to support Operation Atlantic Resolve, and that's why we don't have more of their presence here today. The 142 FW protects the Pacific Northwest skies from Northern California to the Canadian border as part of Aerospace Control Alert, and the North American Aerospace Defense Command. Both wings also stand ready to participate in state and federal contingency missions or natural disasters.

So, that's our mission.

Why do we need this airspace? We need this airspace so we can continue to adequately train to prevent or win the next conflict. Our recent ability to decisively win and prevent conflicts has been chiefly due to our superior training.

The airspace we currently use was originally designed for Vietnam-era fighters, and tactics in which most of the fighting took place within visual range. Now, with improvements in radar and weapons, the fight begins well-beyond visual range; 80nm-plus.

For Portland's 142nd Fighter Wing, they need to expand their existing airspace to facilitate training to these new threats and tactics. They also need an airspace that will allow them to fly when sea conditions make it unsafe to fly over the water, and to reduce their overall transit time and thereby increasing their training time.

In the case of Klamath Falls, they need to expand their existing airspace not only for the mission, but also for the ability to safely de-conflict the simultaneous missions going on in the airspace, which is done to facilitate the increased student throughput required to fulfill the Air Force needs.

All right. So what is airspace expansion?

So right now currently this EEL MOA, the Military Operating Area, it's already there, so the ATCAA is already there. It's from or 18,000 feet up to 27,000 feet.

The proposal is to now take that all the way up to 50,000 feet, so we'll have some more room to work above it. And that would be part of the ATCAA, and then also putting MOA down below it from 11,000 feet down to 18,000 feet.

For those of you that live in that area, our hope is that it will be completely transparent to you. You already have F-15Cs flying there. The only difference is they may be a little lower, but for a very short amount of time.

Most of our training starts at 30,000 feet, higher than most airliners, and about 100 nautical miles away from each other and concludes at lower altitudes. We go to lower altitudes to defend ourselves. Usually we will only be at these lower altitudes, 11,000 feet, which is almost two miles high, for a few minutes, and then we'll climb back up to higher altitudes and start again. You may never see or hear an F-15C in the airspace.

The Redhawk MOA/ATCAA is a new MOA, and it would affectively be a weather back-up for the 142nd.

Right now they need weather back-up because the sea states are unsafe for about a third of the time out there. By unsafe I mean it would likely lead to hypothermia and drowning to any ejecting pilot.

The Redhawk MOA/ATCAA would be a new airspace that would alleviate that problem. It is proposed to be from 11,000 feet up to 51,000 feet, and that is in that area right there.

All right. The Juniper Expansion. The Juniper Expansion is -- only this part of the Juniper Expansion would be a LOAT portion of the airspace. This would butt-up against the existing Juniper low airspace, and that would be the only low-level airspace we're talking about.

It's located in a rural area. And, again, we are only low for very a small portion of time. All the rest of the airspace starts at 11,000 feet to include all of the Hart MOAs, and goes up to 51,000 feet; accept for this Hart foxtrot, which is only up to 28,000 feet, and that's due to air traffic that goes through that area.

Okay. So that's our mission. I'll review the Airspace Initiative and why need the airspace. As a result of these needs, and as required by the National Environment Policy Act, the Air National Guard

has prepared the Draft Environment Impact Statement.

The Draft Environment Impact Statement analyzes potential environmental consequences that could result from implementation of the proposed action. The FAA will conduct their own analysis on how this will affect civil and commercial aviation. I will let Jamie discuss the impact that this Airspace Imitative has on the environment.

Again, I want to thank you for your attendance and your interest in this. Please let me know if you have any questions, or if you just want to have a normal conversation, please find me during the break.

With that, may God bless you, and God bless America. I'll turn this over to Mr. Jamie Flanders from the National Guard Bureau.

MR. JAMIE FLANDERS: Thank you, Sir.

As Colonel Michaelis indicated, I am Jamie Flanders, and I serve as the Airspace Manager for the National Guard Bureau in Washington DC. It is my purpose here today to discuss with you the findings of the Draft Environmental Impact Statement.

The goal in preparing the Draft Environmental Impact Statement is to support sound decision-making by providing an accurate assessment of

potential environmental impacts, and engaging in communication and involvement with the public. The results from this analysis will be considered before a decision is made by the Air Force on this proposal.

The Draft Environmental Impact Statement evaluates the impacts to nine resources by the proposed action, including noise; biological resources; air quality; socioeconomics; and safety. As described in the prepared draft document, we do not expect the proposed action to have any significant environment impacts.

Although we fully understand that charted military airspace can affect commercial and general aviation, and non-participating aircraft, these affects are aeronautical in nature.

If aeronautical concerns from commercial and general aviation users are raised during this public hearing, these will, of course, become part of the official record, but these will be considered during the FAA's aeronautical review.

However, we will certainly ensure that any concerns raised here are included in the aeronautical process for mitigation. Ms. Michele Cruz with the FAA will be speaking later about her role and their process for aeronautical review.

I will speak briefly to a few of the resource areas addressed in the Draft EIS. However, more in-depth information is provided for you in the document.

When the Air National Guard proposes modifying or establishing airspace, noise is generally the greatest concern for the public. Further, noise levels are important when determining the indirect effects to or on the other resource areas, for example, the effects on wildlife or livestock.

The Draft EIS provides information on noise, and the different types of metrics and noise models that were used to determine noise levels.

Different noise models and thresholds exist for different environments and situations. For example, noise model and associated metrics used to determine noise levels around airports are not really appropriate in determining noise levels in special-use airspace. Military aircraft operating in special-use airspace are completing training requirements that result in random flight paths, altitudes, and airspeeds.

In the Draft EIS we present noise levels in several ways in order to provide you with a relevant and meaningful analysis. In short, there are some

areas where the noise levels will be less because the same number of operations will be spread out over a larger area.

In the newly proposed areas, noise from military aircraft will be heard where in the past it may not have been. However, the analysis shows that operations will not cause any underlying areas to experience noise levels greater than the US Environmental Protection Agency's recommended threshold for noise in rural areas.

Other metrics, such as the Maximum Sound Level and the Sound Exposure Level, are also included to supplement our analysis. These metrics are important in assessing the potential interference caused by a noise event with normal conversation, TV watching, sleeping, or other common activities.

Results indicate that within the Juniper Low MOA, the Maximum Sound Level from an F-15 directly overhead at 500 feet at maximum speed could approach sounds similar to a single clap of thunder.

However, low-level flight operations and the avoidance of sensitive receptors, such as the residences, livestock, and National Wildlife Refuges by these pilot make these direct overhead flights extremely infrequent. In addition, the majority of the

airspace will be charted at 11,000 feet and above.

In January 2013 the Oregon Air National Guard provided noise demonstrations to the community leaders throughout the state. The demonstrations showed that training flight at or above 11,000 fee did not interfere with normal ambient noise levels, such as normal conversation.

Our analysis indicates that biological resources, including threatened and endangered species, would not be adversely affected. This was determined based on many of the same reasons that were already mentioned: Random flight activity; infrequent operations at low altitudes; avoidance of sensitive receptors, such as National Wildlife Refuges.

Impacts to biological resources can be direct or indirect. As mentioned previously, the proposed action does not include any construction or ground-disturbing activities, therefore a direct impact would be, for example, a bird-aircraft collision, which are avoided in various ways.

Indirect or secondary effects may include noise impacts to sensitive wildlife species, however, these affects are not expected for several reasons. For example, flight activity at the lower altitudes would only total 249 hours per year, which would be

distributed throughout 5,000 square miles.

Additionally, avoidance procedures would be in place to avoid identified habitat areas, such as bald eagle nesting sites.

Again, the Draft EIS contains the details of analysis, including cited literature or scientific papers. Further, the Draft EIS outlines all special procedures that will be implemented by the Oregon Air National Guard. As required by Federal Law, we will continue to consult with US Fish and Wildlife, and coordinate with the Oregon and Nevada Wildlife Departments.

With respect to air quality, the total flight hours allocated each to 142nd and 173rd Fighter Winds would not increase. Although, under the proposed action, time that was once spent flying from the airport to the training airspace would be used for actual training.

Consequently, the total military aircraft-related emissions, including transit and training, would not change following the implementation of the proposed action.

Within newly-established airspaces the total military aircraft-related criteria pollutant emissions would slightly increase due to the new flight

activities. Also, Polk County, Oregon and Washoe County, Nevada, were found to be in non-attainment or maintenance. However, pollutant concentrations within each airspace will not exceed existing thresholds.

Finally, the EPA exempts aircraft emissions over 3,000 feet above ground level because those studies show emissions above 3,000 feet do not affect ground level pollutant concentrations.

Safety is also a topic that piques public interest. Mishap rates are calculated per 100,000 hours of flying time. Because the proposed action is not for an increase in flight hours, the projected mishap rate for the Oregon Air National Guard is considerably less than the US Air Force-wide rate.

Live ammunition has not and will not be used by the Oregon Air National Guard during within the existing and proposed airspace. However, flares are currently used and will continue to be used.

Although the US Air Force has established 700 feet as a safe minimum distance for flare use, the Oregon Air National Guard has voluntarily raised that minimum to 5,000 feet, making the potential for fire hazard negligible.

As I've said, the Draft EIS discusses and analyzes the impacts to other resources and provides

greater detail to what I've just mentioned.

The Draft EIS was made available for your viewing at a number of public libraries and on the unit's websites beginning the 24th of July. Today's public hearing is the second of two public comment forums that provide the public an opportunity to comment on the scope and content of the EIS. The first forum, called a scoping meeting, was held here and at the other locations throughout the state in June, 2013.

Comments have also been solicited from local, state, and federal agencies that have jurisdiction over particular resources, such as biological resources, and that process began with the release to the Notice of Intent to prepare an Environment Impact Statement in May 2013, and continues today with public and agency review of the Draft EIS.

This hearing gives local communities an opportunity to comment on the analyses that have been presented in the Draft EIS. This formal comment period ends on September 8, 2015. We look forward to input provided from the public and local communities as we proceed through the NEPA process.

Following this period the oral and written comments received from both public and government agencies will be reviewed by the National Guard Bureau.

However, we will continue to accept comments through the NEPA process.

After all comments on the Draft Environmental Impact Statement have been reviewed, substantive comments that address the impact analysis presented in the Draft EIS will be responded to in the final EIS.

The final EIS will be released to the public for a 30-day period before a record of decision may be signed by the Secretary of the Air Force.

Following that decision, the National Guard Bureau will submit the final document to the Federal Aviation Administration for final decision-making, that is whether to accept the proposed action in part or in whole.

I will now turn the presentation over to Michele Cruz, FAA Western Service Area Airspace Specialist. She is an FAA military airspace expert responsible for processing all military airspace acquisition proposals throughout the Western United States. She has been involved with this project by evaluating the potential impact to aviation, general and commercial.

MS. CRUZ: Thank you. We're almost done.

As Jamie said, I work for the Federal

Aviation Administration and serve as a subject matter expert on military airspace. So I cover a 13-state region including Alaska, Hawaii, and Guam.

I will be able to answer any questions that you may have on the FAA's roles and responsibilities regarding military airspace proposals, our timeline, and the process that the FAA follows.

However, I must be clear that my and FAA's participation is to provide aeronautical technical expertise and is not to be construed as an FAA endorsement or support for this airspace action. No decisions concerning the proposal will be made at this meeting.

If requested, I can provide an overview of the procedures followed by the FAA for processing SUA proposals.

Additionally, please be advised that written comments on the aeronautical aspects of the proposal should be submitted during the public comment period associated with the aeronautical circularization.

We forecast that the aeronautical circularization will begin shortly after the closing of the Draft EIS public comment period. So we're actually tentatively scheduled to set that out on the 18th of

September.

MR. JAMIE FLANDERS: All right. Thank you, Ms. Cruz.

This concludes the explanation of the proposal, the NEPA process, and the findings of the Draft EIS. I now return the program back to our hearing officer.

COL. PETE TELLER: We will now recess the proceedings for ten to fifteen minutes to allow for the staff to review any clarifying questions submitted during the presentation.

As I previously mentioned, this hearing is not a debate, nor is it primarily designed as a question and answer session; although legitimate, clarifying questions may be asked. If you have questions on any of the information presented thus far, please write your question on the provided card.

Again, to be clear, this is for us to clarify any of the information presented this far. The time to provide your comments will follow once all questions have been addressed.

If you have not been provided a card for you question or a card with your desire to make a comment to our staff yet, now is the time to do so. After you filled out the question card, please provide

it to one of the team member identified by military uniform or name tag. You'll be alerted when it's time to reconvene.

Refreshments are available for your enjoyment. We'll be on break for about ten or fifteen minutes.

(Whereupon a recess was taken at 6:42 p.m.)

(Back on record at 6:56 p.m.)

COLONEL PETE TELLER: Okay. We're going to go ahead and reconvene the formal part of the hearing. Since we didn't have any questions, we'll go ahead and move to the commentary.

So the stenographer can accurately capture your comments, please clearly state your full name, and the full name the organization you represent, if any. There's no need to provide any other personal information such as your home address or phone number. Your oral comments will be used to develop a transcript and permanent public record of this meeting.

Again, as a courtesy to those who have registered to speak, please limit your comments to a reasonable period of time. This applies to all of our speakers.

Keep in mind that you're welcome to submit

written comments, and there are no page limits. The Air Force shall give equal weight to all comments, whether they are oral, written, or both.

You do not have to speak for the full time, however, if you choose to speak for the full five minutes I will advise you when your time is almost up. Again, please understand there is no page limit to written comment, and equal weight will given to both oral and written comment. They will all become a part of the official record and be included in the final EIS.

We only had one person with a desire to speak.

Mr. Hathaway.

MR. HATHAWAY: You know, I think maybe just for the record, just to be safe, we already discussed the conflict with the gliders. I fly in North Plains with gliders that are very hard to see on radar above -- we're going to be very rarely flying above 11,000 feet, but we have on occasion on the coast range.

As long as we have some kind of form of communication, I think it will probably not be a conflict at all. But there is a chance that -- it has very light output on the radios, and they might not be

able to communicate at times; very rarely.

It's not a very articulate comment, but that's all. I think it's been addressed. We've already talked about that.

COL. PETE TELLER: Very well. Thank you very much for your comment.

Anybody else with a desire to speak?

Okay. This evening's goal was to engage with you in open communication and to provide accurate information to ensure your informed participation in the NEPA process. I believe that we've achieved that goal.

Please feel free to review the information on the desks, and ask any additional questions that you may have regarding this proposed action.

Again, you have an opportunity during the formal comment period ending September 8, 2015 to provide written comments.

Please stop by the registration booth to get any additional materials you may need.

Thank you and have a good evening.

(Proceedings concluded at 7:00 p.m.)

* * *

Draft EIS Hearing Proceedings

August 12, 2015

Loft at The Red Building

Astoria, Oregon

SPEAKERS:

Major Stephan Bomar

Brigadier General Jeffrey Silver

Colonel Pete Teller

Lieutenant Alaric Michaelis

Jamie Flanders

Michele Cruz

Be advised that Fritz Graham was introduced and recognized on the record as representing Senator Wyden in these proceedings.

Refer to Day 1 (Tillamook) minutes for introductory comments.

* * *

COL. PETE TELLER: This meeting is now convening. As we resume the formal part of the hearing, the first thing I'd like to do is give the National Guard Bureau an opportunity to address the question we received during break.

After that question has been answered we'll begin the formal comment portion of the hearing. If you still have questions following this hearing, please feel free to review the information on the desk or ask additional questions you may have regarding the proposed action.

Lt. Col. Michaelis.

LT. COL. MICHAELIS: Okay. Great.

"Could we get clarification on where supersonic versus subsonic operations will occur."

That's a great question. Obviously we don't want that big thunder clap right over a house.

So the only time it's ever going to happen it will always be above 30,000 feet. The EEL MOA will not have supersonic flight, so The Dolphin, we have the exact same thing. At 30,000 feet it will be dissipated to the point you wouldn't hear it anyway. But we still don't do it, just to make sure you don't find that one bubble of air that lets it through.

So there won't be supersonic flight below 30,000 feet? Does that answer your question? Okay. Good.

COL. PETE TELLER: Now that we've answered any questions that have been submitted, I'd like to begin the formal comment portion of the hearing. I'll call the speakers up in the order in which they signed up, elected officials having the opportunity to speak first.

So the stenographer can accurately capture your comments, please clearly state your full name and the full name of the organization you represent, if any. There's no need to provide any other personal information such as your home address or phone number.

If you wish to make an oral comment privately, we can arrange that either during one of the breaks or after the formal portion of the hearing.

The oral comments will be used to develop a

transcript and permanent public record of this proceeding. Again, as a courtesy to those others who've registered to speak, please limit your comments to ten minutes. This applies to all of our speakers.

Keep in mind you're welcome to submit written comments, and there are no page limits. The Air Force will give equal weight to all comments whether oral, written, or both.

You do not have to speak for the full ten minutes, however, if you choose to speak for the full ten minutes, I'll advise you when your time is almost up.

Following your comments I ask that you sit down so I can call on the next speaker. If you think you'll have more comments that you can present in the time allotted, make the most important comments first and then follow up by submitting the remainder of your comments in writing, if you wish.

Again, please understand there's no page limit to written comments, and equal weight will be given to both oral and written comments. They will all become part of the official record and will be included in the final Environment Impact Statement.

I'd now like to begin. I apologize in advance if I don't get your names correctly. The first

speaker is Mr. Raichl.

JOHN RAICHL: Sir, I'm not here to speak on the EIS deal. They said I could offer other comments. Would you like me to defer until you get all your EIS comments done.

COL. PETE TELLER: No, Sir. We'll go ahead and go through it.

JOHN RAICHL: Go ahead?

COL. PETE TELLER: Please.

JOHN RAICHL: General, officers, and members of the panel, thank you for holding this in our area. It's very convenient for us to be here tonight.

I'm President of the Port of Astoria Commission that is the owner of the Astoria Airport, and I have been given the blessing of the rest of the commissioners to speak on their behalf here for the position for Astoria and Astoria's concerns.

I'm also the ASN, the Airport Support Network volunteer for the airport for AOPA. If you'd like, I could talk to that differently, or I could combine whatever -- for brevity I can combine them, because the comments are quite short for the Port of Astoria.

COL. PETE TELLER: Whichever way you would think most effective.

JOHN RAICHL: Okay. And I do want to say I'm former Air Force, so I apologize to all the Air Force colleagues here; this is how far you can slide down after you leave the Air Force.

The only concerns -- and like I said, there's no EIS issues here, because the only concern that the Port of Astoria has -- and we have two of our Airport Advisory Committee members here also. One of them represents private industry of the airport, and another one is our Washington State representative because our regional airport serves both sides of the river.

We have two other members that aren't here. We have a Coast Guard representative that's not here, and two other members, one which some of you are very familiar with, it's Dr. Dills, recently retired Lieutenant Colonel from 173rd; and another Air Force colonel retired, Mark Smith. Maybe they chose not to be here tonight just so they didn't have to conflict.

The Astoria Airport, we think we're in the beginnings of a regrowth at the airport and resurgence of some general aviation activity. We have seen a continually increasing use of turbine aircraft coming into our airport.

We do have turbine aircraft based here, but

they're all helicopter right now. We have United States Coast Guard Columbia River, and they operate the three Jayhawks. Of course, they're here so I don't need to talk about them.

Then we have a Life Flight network helicopter, and we also have -- well, Mr. Turel runs mostly out of Seaside, but we also have the Barcat (phonetic) Helicopter that services the incoming and outgoing ships.

None of their operations, I think, would ever have a conflict with your 11,000 foot floor. The only thing that we are concerned about the EEL MOAs is the issue with Victor Airway No. 27 and Victor Airway No. 112. The transition airway goes down through the coast, and also 112 that comes from inland to Pieder (phonetic) and Ilwaco and up to Washington, and it goes over the Astoria VOR.

In talking with one of our airport advisory members who flies heavier iron than myself or Gary or the other members do, he was concerned about there's often IFR traffic at that altitude. I talked to a jet here recently that said it hasn't happened this summer, but in the past they've been coming in through a transition and they've been held out also into where we get into that airspace.

We are desperately trying to -- we're slated to have a FAA supported runway overlay and improve our airports. I think the time is coming -- we do have one company that owns a jet, it's just not located at the airport at this time until facilities are available, and we are looking at another one that will possibly have a jet based locally.

And so we just want to make sure that none of this activity would diminish our civilian side of being able to enhance and grow the airport. So that's the only comments I have for the EEL.

Most of us, and most of the pilots out there seem unaffected by it, and most of us don't have the equipment that we're going to rise up from out airport to 11,000 feet or descend that quick anyway, so.

Representing the pilots out there, and once again we have I think 55, 56 piston-engine aircraft based in the field, and very few of them are the type that are ICE capable; only a few of them that are even turbocharged. There's a lot of us that go through the airspace and into Idaho, Montana, Utah. And, typically, because of the weather in the wintertime, it's not going through the layer with icing, and so you run up through The Gorge, and then as soon as you get

through The Gorge, to weather on the other side is usually remarkable better or high ceilings.

You have -- east of your proposed Redhawk MOAs you have several quadrants that go up to the Wallows, go up to 10-2; there's a bunch of 9-4s and 9-5s; 9,500 foot quadrants. And so it's typical that we -- as soon as we get through the gorge and to The Dalles that we elevate ourselves to 11,500 and continue east. That is our only concern if the Redhawk MIA is active.

I talked to the Colonel earlier and understand that that is probably not going to be that often, and there would the possibility that they won't have to activate all three sections. But that proposal to those people at the airport that we represent had more concern than the proposal for over the airport airspace itself.

But the one other thing we have is, well, we have noticed, you know, that if you start up at the Canadian border with Roosevelt and the Okanogan MOA and you come right down through the center of our two northern states and Northern California, you have a lot of airspace that's already been taken up, you know. You have the Okanogan airspace, the Yakima firing range; different entities obviously, not just Air

Force. Then you have the Hanford restriction; the Boardman restriction; you have the IR routes that support areas from Whidbey Island Naval Station going down to Boardman gunnery range; and then this new proposal; then you get down to the Juniper and Hart Mountain MOAs and Goose MOA; and then down into the MOAs that fall around Red Bluff and all that. There is a lot of that that is already quite congested with it.

We support the military. We're proud of the military and the effort that they do. And I understand that the 173rd will now be doing all of the F-15 training right here in Oregon, and I think that's nice. That's a great thing for Oregon. We're just cautious. We're not opposed to any of this, we're just cautious, and our concerns is de-confliction -- possible de-confliction issues that might come up with the Redhawk MOA.

Other than that, I have nothing else for you.

Oh, the only other thing is, we have an industry here. This year the fisheries have found that the adequate biomass out there was not there to harvest. We don't have any fish spotters working right now, but we have a fish spotting in this region, usually eight to ten planes out of Astoria, and some

out of Ilwaco, Washington that work the area 2200 feet when they're doing biomass surveys up around 4,000 feet, taking photographs, and they work in that area that the MOA allows you to go down to 1,000, but I understand that that's already preexisting, and that has not been a problem in the past, so we don't see any reason for that to change.

Other than that, if you have any questions, that's all I have.

COL. PETE TELLER: Thank you, Sir.

JOHN RAICHL: Thank you.

COL. PETE TELLER: Mr. Balensifer.

HENRY BALENSIFER III: I actually will be submitting written comments as a lot of the questions we had were explained. Thank you.

COL. PETE TELLER: Thank you, Sir.

Mr. Kobes.

GARY KOBES: General, members of the panel, these are pretty much follow-up comments to what John had. I'll be just a little bit more specific.

It's not an issue that we object, the concern is the mixing of primarily IFR traffic. As John said, we don't anticipate any affect on general aviation, VFR traffic. But there may be issues with arrival procedures at some points depending on how air

traffic control sequences the planes in and sets them up.

And then on the departure procedures, particularly from Tillamook, the departure procedure there calls for a take off to the northwest, and I think it intersects the FETJU weight point at right about between EOB and ENC, if I'm not mistaken, and climbs to 5,000 feet. And then if you're eastbound or northbound or westbound -- north or south you've got a long ways to go to clear the bottom of the airspace if it's hot. Eastbound you have to fly at least about 25 miles. You've got 6,000 feet to climb from 5,000 to 11.

So that may not be an issue, but we do have concerns about high-performance turbine take-off from Astoria and the climb out to Astoria 1 departure with a citation or something of that nature. It could be wanting to punch up through the bottom of the MOA.

So from what you've explained, it seems like the amount of time that there's potential for conflicts is very, very, very small percentages, and hopefully as we work through the process we'll find ways to accommodate both needs.

Thank you.

COL. PETE TELLER: Thank you, sir.

MR. CRUZ: For those of you that have aeronautical concerns, if you come see me I'll take your information to make sure that you get a copy of the aeronautical circularization so that during that time those comments are on record and looked at by the FAA. I expect that to go out about a week after this public -- the environment public comment closes. Just come and see me and I'll add you to my list.

(Proceedings concluded at 7:15 p.m.)

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Draft EIS Hearing Proceedings

August 14, 2015

Condon High School

Condon, Oregon

SPEAKERS:

Major Stephan Bomar

Brigadier General Jeffrey Silver

Colonel Pete Teller

Lieutenant Alaric Michaelis

Jamie Flanders

Michele Cruz

Be advised that Judge Steve Shaffer was introduced and recognized on the record in these proceedings.

Refer to Day 1 (Tillamook) minutes for introductory comments.

COL. PETE TELLER: Since we don't have any clarifying questions, we'll move into the formal comment portion. If you do have any questions, let me remind you that after the formal proceedings member of the staff will be around and will be able to answer those one-on-one.

I'll call Mr. Snyder.

LARRY SNYDER: My name is Larry Snyder. I'm a rancher southwest of Condon about five miles. I'm a former pilot. I'd like to testify as far as noise pollution affecting wildlife and cattle.

I used to own a ranch 20 miles north of Condon. At that time Whidbey Island pilots would come over there to the Boardman bombing range, and I've never seen any negative reactions from my cattle or wildlife in that area. Wildlife get accustomed to any kind of noise or actions, like when I'm working my fields, they get to where they just ignore it. So I

don't believe noise pollution is a problem.

As far as the noise, I hear that noise, and to me, it's pride in America. These people are doing a job to protect myself and my family and my country. I take great, great pride in our Air Force and our country. Some people just don't realize what this means to people.

I would testify very positive to this new additional airspace.

COL. PETE TELLER: Thank you, Mr. Snyder.

Mr. Bates.

MR. BATES: My name is Paul Bates and I live here in Condon. I'm also a pilot. I just checked that because I thought that I might want to say something. I have absolutely no problems with what's going on here. I cannot imagine environmental impact on this area.

COL. PETE TELLER: Very well. Thank you, sir.

(Proceedings concluded at 7:05 p.m.)

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Draft EIS Hearing Proceedings

August 15, 2015

Harney County Center

Burns, Oregon

SPEAKERS:

Major Stephan Bomar

Brigadier General Jeffrey Silver

Colonel Pete Teller

Lieutenant Alaric Michaelis

Jamie Flanders

Michele Cruz

Refer to Day 1 (Tillamook) minutes for introductory comments.

Be advised there were no clarifying questions or comments provided by the public at this hearing.

* * *

Draft EIS Hearing Proceedings

August 17, 2015

Crook County Library

Prineville, Oregon

SPEAKERS:

Chris Ingersoll

Colonel Pete Teller

Lieutenant Alaric Michaelis

Jamie Flanders

Michele Cruz

Refer to Day 1 (Tillamook) minutes for introductory comments.

COL. PETE TELLER: I'd like to begin. The only person that's indicated a desire to speak is Mr. Austin.

Mr. Austin.

MR. JEREMY AUSTIN: Thank you. My name is Jeremy Austin. I work for Oregon Natural Desert Association.

As we kind of spoke at length previously, at this point my concerns are with wilderness value and wildlife values. We're concerned because the Draft EIS did not address wilderness study areas.

There's several wilderness study areas in the Juniper and Hart MOAs, the proposed expansions of the Juniper and Hart MOAs, and also in the Redhawk complex. Those are two area that Oregon Natural Desert Association works in, and we would like to see alternatives considered that analyze potential impacts of the expansion of the MOA and the creation of the MOA complex to wilderness study areas and wilderness values.

COL. PETE TELLER: I heard in the informal conversation that there was a specific alternative you

wanted considered with regard to a possible --

MR. JEREMY AUSTIN: We had submitted comments during the notice of intent comment period, and we're trying to figure out if those comments were received or not. The piece we had in those comments highlighted several alternatives.

The one we were just specifically talking about has to do with the Juniper D, the Juniper low area, Hart C, and basically bumping the eastern border of the expansion of the proposed MOA over to Highway 205 there to avoid the Steens Mountain Wilderness Area.

There's also some sage-grouse habitat in that region and it's an area of particular concern for us.

There's several other alternatives that we highlighted in there; the removal of whole MOAs or different combinations that we hoped would be considered and analyzed as alternatives and were not.

COL. PETE TELLER: Okay. I'll go ahead and include the hearing.

(Proceedings concluded at 7:11 p.m.)

* * *

C E R T I F I C A T E

I, Amanda K. Fisher, a Certified Shorthand Reporter and Notary Public for Oregon, do hereby certify that the parties involved in these public hearings personally appeared before me at the time and place set forth in the caption hereof; that at said time and place I reported in Stenotype all testimony and oral proceedings; that thereafter my notes were reduced to typewriting under my direction; and that the foregoing transcript, pages 1 to 58, both inclusive, constitutes a full, true and accurate record of all such testimony adduced and oral proceedings had, and of the whole thereof.

Witness my hand and stamp at Portland, Oregon, August 26th, 2015.

AMANDA K. FISHER
CSR No. 3229
Notary Public for the State of Oregon
Notary Commission No. 933197
My Commission Expires: 10/29/2018