United States Department of the Interior

NATIONAL PARK SERVICE
Pacific West Region
909 First Avenue, Suite 500
Seattle, WA 98104

IN REPLY REFER TO:
ER14\0661

November 18, 2014

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

RE: Proposed EA-18G Growler Airfield Operations at Naval Air Station Whidbey Island, Washington - Notice of Intent to Prepare an Environmental Impact Statement (ER-14/0661)

The National Park Service appreciates the renewed opportunity to comment on proposals for EA-18G Growler operations at Naval Air Station (NAS) Whidbey Island, Washington. NAS Whidbey Island is located approximately 5 miles from Ebey's Landing National Historic Reserve (NHR), 16 miles from San Juan Island National Historic Park (NHP), and 26 miles from Olympic National Park (NP). Other NPS units in the region include: North Cascades NP and Ross Lake National Recreation Area (NRA) about 55 and 60 miles, respectively, northeast; Lake Chelan NRA about 85 miles east; Mount Rainier NP about 100 mile southeast; Lake Roosevelt NRA about 170 miles east; and John Day Fossil Beds National Monument (NM) about 260 miles southeast. On January 3, 2014 we previously commented on this initiative, and those comments are incorporated by reference in our current response.

Due to the proximity of the above noted units of the National Park System to NAS Whidbey Island, and because some parks in the region are near or below Military Operations Areas (MOAs) and Military Trailing Routes (MTRs)[1], the National Park Service (NPS) is concerned about the potential of the proposed action to adversely affect the acoustic environment and visitor experience at these parks. Accordingly, the NPS respectfully requests a meeting with Navy staffs to obtain more accurate information on current use of park airspace, and to better understand how the proposed expansion of Whidbey NAS operations would directly or indirectly affect the parks.

Natural and cultural sounds are integral components of the suite of resources and values that NPS managers are charged with preserving and restoring. NPS evaluates federal actions which may impact the human and natural environment within our Parks with respect to our Organic Act mandates, including "to conserve the scenery and the natural and historic objects and the wildlife therein and to

[1] Seattle Sectional Chart, *http://skyvector.com/*, accessed November 4, 2014.

provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations." The "scenery," includes the natural soundscape, as well as the landscape (NPS Management Policies 2006). Director's Order #47 delegates to parks the responsibility to preserve natural soundscapes and eliminate or mitigate inappropriate noise sources.

The acoustic environment of a national park, like air, water or wildlife, is a valuable resource that can easily be degraded or destroyed by inappropriate sound levels and frequencies. Intrusive sounds are of concern to the management of national parks because they can impede the ability to accomplish the NPS mission of resource protection. Intrusive sounds may also disrupt ecosystems by interfering with the ability of wildlife to communicate, establish territory or find suitable habitat, reproduce, nurture and protect offspring, find prey, and avoid predators. Further, visitors at many NPS units come with expectations of seeing, hearing, and experiencing phenomena associated with a specific natural or cultural environment, yet in many cases these environments are being increasingly impacted by artificial sounds due to noise associated with aircraft overflights.

Several NPS units – Olympic NP, Mount Rainier NP, and North Cascades NP – contain designated wilderness lands. *The Wilderness Act of 1964* directs federal agencies to manage wilderness areas to preserve wilderness character, where qualities of wilderness character include "Natural", "Untrammelled", "Solitude or Primitive and Unconfined Recreation", "Undeveloped", and "Other Features of Value". The addition of human-made noise to a natural soundscape impacts wilderness character by interfering with opportunities for solitude and primitive recreation. Incorporating these characteristics of human-made noise is crucial when characterizing the acoustic environment in wilderness areas. Consequently, we recommend inclusion of *The Wilderness Act of 1964* under Section 3.5 of the Executive Summary; in Chapter 1, Section 1.6.3 ("Other Environmental Requirements Considered"); and in Chapter 3, Section 3.0.1.1 ("Federal Statutes").

Regarding Olympic NP specifically - Under Chapter 2, Section 2.7.1.1, it states that, "The Navy would increase the tempo of air combat maneuver training from 160 events per year to 550 events per year due to the introduction of locally based EA-18G aircraft." This is an increase of 244%. Under Section 2.7.1.4 "Electronic Warfare," it states that, "Under Alternative 1 [the preferred alternative], the Navy proposes an increase in Electronic Warfare training from 2,900 events per year to 5,000 events per year with the proposed increase of additional electronic threat emitters in the Study Area." This is an increase of 72.4%. While the emitter sites identified in the Pacific Northwest Electronic Warfare Range/EA are not within the boundary of ONP, the military overflights are within the Olympic MOA which includes a portion of the non-coastal and nearly all of the coastal Congressionally-designated wilderness within ONP. ONP already receives complaints from visitors of very low flying military aircraft buzzing peaks and valleys within the wilderness area, outside of the Olympic MOA.

An analysis of the impact of increased military overflights within the Olympic MOA on the effects federally-threatened marbled murrelet and other species of concern is covered under the Endangered Species Act, however, there is no analysis conducted on the impacts of increased overflights within and outside the Olympic MOA, within ONP, on the federally-threatened spotted owl, nor on wilderness character and visitor use and experience. ONP requests that the Navy conduct this analysis and include it within the FEIS.

Under mitigation measures for "Acoustic Stressors" in Chapter 5, ONP requests the Navy conduct baseline soundscape monitoring prior to the completion of the FEIS, and include those findings within the FEIS; then conduct regular (annual) soundscape monitoring within and outside the Olympic MOA, within ONP, to ensure that noise from increased military overflights would not have an appreciable effect on the natural sounds, visitor experience, and on federally-threatened bird species within ONP.

Finally, in order for NPS to effectively comment on the soundscape analysis, NPS offers the following comments for consideration as the proposed project moves forward:

1. **Please describe existing aviation traffic at NPS units, and changes in aviation traffic at NPS units, that would occur as part of each alternative**. Information of interest to NPS includes the location of flight routes with respect to NPS units, the number of operations, the timing of operations (daily and seasonally), flight elevations above ground level, and type of aircraft.

2. **Please describe and analyze the direct, indirect, and connected actions** that might occur as a result of each alternative and the resulting impacts to NPS units. Examples of connected actions or indirect effects might include increases in training exercises and aviation traffic at other airports in the vicinity/region, or within Special Use Airspace, MOAs, or on MTRs throughout the western United States.

   Examples of NPS units under or near MOAs include, but may not be limited to, the Olympic A and B MOAs over Olympic NP, the Roosevelt A and A/B MOAs over Lake Roosevelt NRA, and the Okanogan A & B MOA just east of Lake Chelan NRA. Examples of NPS units under or near MTRs include, but may not be limited to, IR 348 just east of Lake Chelan NRA, and VR 1351, IR 328, and IR 348 over Lake Roosevelt NRA, and IR 342 and VR 1352 that are over John Day Fossil Beds NM.

3. **Please analyze the impact to the acoustic environment at NPS units using appropriate metrics for noise-sensitive areas**. The day-night average sound level (DNL) metric is an energy-based noise averaging metric widely used by the Federal Aviation Administration FAA and the Department of Defense as the primary means for determining noise impacts from aviation activities. However, since DNL is an averaging metric and assumptions regarding impacts from DNL levels are based on community response data, the DNL metric alone is not adequate to capture other characteristics of noise exposure and the impacts to park resources, values, and visitor experience.

   NPS strongly recommends the use of audibility-based and "time above" metrics to take into account the duration of aircraft noise events, the number of aircraft noise events, and sound level of events. These metrics correlate better with flight operations than day-night average metrics, which obscure the dynamic range of acoustic events. Other metrics include maximum A-weighted sound levels (L_{max}), sound exposure level (SEL), equivalent sound level (L_{eq}), and number-of-events-above a specified sound level (NA) as described in the Department of Defense Noise Working Group publication *Improving Aviation Noise Planning, Analysis and Public Communication with Supplemental Metrics*[2]. Other analytical tools include the incorporation of DNL maps with color shading and flight track maps. These metrics and analyses would also better satisfy the

[2] http://www.denix.osd.mil/dnwg/upload/DNWG_Supplemental-Metrics-Report_December-2009.pdf

requirements under the National Environmental Policy Act to characterize impacts to the environment in terms of intensity, context and duration (40 CFR 1508.27).

NSNSD has conducted acoustic monitoring at several NPS units in the region in order to characterize existing sound levels, estimate natural ambient sound levels, and identify audible sound sources. The monitoring sites included a mix of backcountry and front country locations that varied in elevation and forest type. A variety of metrics were calculated, including existing and natural ambient sound levels, percent time audible of extrinsic (human-caused) sounds, percent time above key thresholds, hourly exceedence metrics, and dB levels for one-third octave bands. The monitoring data may be of use in the acoustical analysis. The NPS units and internet address for publicly accessible reports are as follows:

- North Cascades NP Complex, *https://irma.nps.gov/App/Reference/Profile/2195909*.
- Mount Rainier NP, *https://irma.nps.gov/App/Reference/Profile/2176711*.
- Olympic NP, (report available upon request).

As shown in these reports, for all but one front-country location in North Cascades NP (a campground), there was no greater than a 3 dBA difference between median *existing* daytime ambient and median *natural* daytime ambient, suggesting very little intrusion of human-caused noise. These naturally quiet conditions have also been demonstrated in a geospatial sound model that NSNSD has developed to estimate existing ambient and natural ambient sound levels over landscape scales[3]; our modeling suggests that, on average, there is little variation in existing and natural ambient levels (modeling available upon request).

4. **Please collect baseline ambient acoustic data at Lake Roosevelt NRA to support the noise analysis.** While the NPS has collected acoustical data several NPS units in the region (Olympic NP, Mount Rainier NP, and North Cascades NP), monitoring has not been conducted at Lake Roosevelt NRA. As mentioned above, two MOAs and three MTRs are believed to impact this unit.

5. **Please analyze the impacts of each alternative on wildlife**, including any federally listed species that inhabit NPS units, and discuss the impacts in the context of relevant laws such as the Marine Mammal Protection Act, the Migratory Bird Treaty Act, and the Endangered Species Act. We request that the considerable peer reviewed, published literature and data available on this subject (for all vertebrate taxa) is consulted and referenced in the EIS.

6. **Please consider the alternative that most minimizes noise impacts** at NPS units through aircraft technology/design or modifications to flight routes, timing, or number of operations.

If you have any questions regarding our comments and concerns, or if we can be of any further assistance in providing maps, acoustical data, or other information, please contact to following persons:

Craig Holmquist, Facility Manager, Ebey's Landing National Historic Reserve (360) 678-5787

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[3] D. Mennitt, , K. Sherrill, and K. Fristrup, "A geospatial model of ambient sound pressure levels in the contiguous United States," J. Acoust. Soc. Am. 135 (5), May 2014.

Karen Taylor-Goodrich, Superintendent, North Cascades National Park Service Complex (360) 856-7205

Tracy Swartout, Acting Superintendent, Mt. Rainier National Park (360) 569-6502

Sarah Creachbaum, Superintendent, Olympic National Park (360) 565-3002

Dan Foster, Superintendent, Lake Roosevelt National Recreation Area (509) 754-7812

Shelley Hall, Superintendent, John Day Fossil Beds National Monument (541) 987-2333x1212.

Lee Taylor, Superintendent, San Juan Island National Historical Park (360) 378-2240x2223.

Brent Lignell, Natural Sounds and Night Skies Division (970) 225-3580.

The National Park Service appreciates the opportunity to provide these concerns and pertinent environmental information to inform the preparation of the EIS for EA-18G Growler Airfield Operations. The NPS seeks mutually beneficial solutions and mitigation strategies appropriate for all potential impacts associated with the proposed project. We look forward to working with the Navy during the development of the EIS to develop solutions that respect natural and cultural resource values, healthy ecosystems, cultural landscapes, and public enjoyment of these places, as well as the need to ensure realistic training and operations.

Sincerely,

Randy L King
Acting Deputy Regional Director, Pacific West Region

Cc:
Craig Holmquist, Facility Manager, Ebey's Landing National Historic Reserve
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Lee Taylor, Superintendent, San Juan Island National Historical Park
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