

**Citizens of Ebey's Reserve Summarial Comments
on Chapter 6 of:
Final Environmental Impact Statement for
EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island
--March 8, 2019--**

The following comments by Citizens of Ebey's Reserve (COER) address Chapter 6 of the Final Environmental Impact Statement (FEIS) for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island (NASWI). That chapter summarizes the FEIS conclusions relevant to the National Environmental Policy Act (NEPA). COER has excerpted (black font) below those conclusions for which we have opposing information and conclusions (blue font) that refute and discredit the positions advanced by the FEIS.

FROM TABLE 6-1: Executive Order 13045, Environmental Health Risks and Safety Risks to Children [Authority: Navy] [EIS Section: 3.3 and 4.3, Public Health and Safety]

Based on the limited scientific literature available, there is **no proven positive correlation** between noise-related events and **physiological changes** in children. Additionally, the aircraft noise associated with the action alternatives is **intermittent**; therefore, the Navy does not anticipate any significant disproportionate health impacts to children caused by aircraft noise. **No schools are located within the Accident Potential Zones (APZs)** at Ault Field and Outlying Landing Field (OLF) Coupeville under any of the alternatives or scenarios; therefore, **there is no disproportionate environmental health and safety risk to children as a result of possible aircraft mishaps.**

[COER: The Navy frequently mentions the absence of "*scientific proof*" as a tool they use to discredit information they find inconvenient. Proofs, however, do not exist in science; they exist only in mathematics and logic. The criterion and standard of evaluation of scientific theory is *evidence*, not *proof*. Unlike a proven mathematical theorem, scientific knowledge is never final or proven. Hence, science deals with the best and most current *evidence*. As the evidence grows the scientific community increasingly moves towards a critical mass of consensus on the question (global warming is real, for example). So, while the impacts of noise are not "proven," the weight of the evidence has led the experts to conclude the noise impacts on health are real and measurable. Yet, this FEIS tries to discount that scientific conclusion because it isn't "*proven*."

What the FEIS means above by no correlation to "*physiological changes*" is equally vexing. The impacts of toxic noise on human health are surely a physiological response to a physical force impinging on the body, creating a variety of physiological responses—the secretion of stress hormones, for example. The detrimental effect of noise on learning is well documented, and learning is a physiological process, not a mechanical one. The impact of noise on hearing and the greater childhood sensitivity to noise is both mechanical and physiological.

Furthermore, the matter of the noise being "*intermittent*" is paraded about in the FEIS as somehow meaningful, even though no definition is provided—like what is the threshold between intermittent and non-intermittent noise? And what is it about *intermittency* that makes the Navy believe it is somehow important? While we found no scientific or acoustic definition of noise *intermittency*, we do have some help from science, and that is based, reasonably enough, on exposure as related to two variables:

loudness and its temporal duration within a set period, usually an 8-hour or 24-hour period. Science refers to that combination as the noise “dose.”

As Paul Schomer (Standards Director, Emeritus, Acoustical Society of America, Schomer and Associates, Inc.) explains in COER’s comments on the draft EIS, it is not intermittency but the frequency of episodic exposure that is relevant: *“For hearing conservation a noise dose is established in general, for an 8 hour workday or a 24 hour day. The Navy criteria and presentation is for an 8, hour day. It is for the total dose during the 8 hour time period and it is set to 85 dB. This means that the dose is equal to what can be thought of as a constant 85 dB for 8 hours, or 480 minutes, or 28,800 seconds.”*

A typical FCLP session lasts about 40 minutes and during that time with typically 3-4 jets in the loop, the noise is constant at 80 dBA to about 120 dBA. That is constant. And one session is typically followed after a short break by 1-4 or more sessions. As determined by Schomer via JGL 2013¹ on-site noise records, the noise dose exposure in just one OLFC session of overhead flights exceeds that Navy standard for designating a noise conservation zone: i.e., *“an area where the 8-hour time-weighted average exceeds 84 dBA (or 140 dB peak sound pressure level, SPL, for impact or impulse noise) **for more than 2 days in any month.**”* Military and civilian personnel working in such areas are put in the Navy’s Hearing Conservation Program, and their health is identified as “at risk”

The FEIS needs to answer how and why *dose* (not *intermittency*) is the criterion they use for Navy personnel, but *intermittency* rather than *dose* is somehow the appropriate yet undefined metric for civilians exposed to Growler noise. While at it, they might do well to further elucidate on their “Theory of Intermittency.”

As for the APZ thing, let’s keep in mind that these APZs are not black and white—i.e., no risk beyond and all risk just within. No, risk of mishap is on a sliding scale, such that the risk diminishes very gradually as the distance from the set landing/takeoff path increases.

On April 6, 2012, an Oceana-based F/A-18D (same airframe as Growler) crashed into an apartment building in Virginia Beach, VA. https://pilotonline.com/news/military/local/article_78fcc292-7731-53d5-aba0-d7c084307a69.html. The crash occurred in the vicinity of Birdneck Road between between Virginia Beach Boulevard (264) and Laskin Road, or just outside the boundary of the APZ-2 of runway 5R, as can be reviewed from the two maps below:

<https://www.vbgo.gov/government/departments/planning/areaplans/Documents/Oceana/JLUSAICUZPlanningMap.pdf>

<https://www.google.com/maps/search/Birdneck+road,+virginia+beach,+va/@36.8445334,-76.01247,14.69z?hl=en>

That in mind, there is a high school, middle school, elementary school, and a daycare center about a quarter mile from the proposed APZ-1 for OLFC Path 32. Like the Virginia Beach mishap, which was outside the margin of the less at-risk APZ-2, the schools here are just a tad beyond the APZ-1

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Jerry G. Lilly, P.E., President JGL Acoustics, FASA Member INCE, ASTM, NCAC. Whidbey Island Military Jet Noise Measurements. Initial Study June 2013 and Follow-up Study February 2016. Both studies available at <http://citizensofebeysreserve.com/LinksAndFiles.html> .

banked turn into the FCLP downwind leg. The jets are so close one could almost see the pilots waving at the kids. Were a mishap issue to arise, a Growler could easily reach any of these large buildings filled with kids. Or even the hospital just beyond. Let's be realistic about the risks rather than ignoring the reality that there is little risk difference between being under versus on the outside edge of an APZ-1 or -2.

Given all of the above, we find the FEIS conclusion—“*no disproportionate environmental health and safety risk to children as a result of possible aircraft mishaps*”—to be distorted and without common-sense credulity.

FROM TABLE 6-1: National Historic Preservation Act (Section 106, 54 U.S.C. 300101 et seq.) [Authority: various] [EIS Section: 3.6 and 4.6, Cultural Resources]

The Navy determined an overall finding of adverse effect to historic properties. The Navy is consulting with the Advisory Council on Historic Preservation, the Washington State Historic Preservation Officer, federally recognized tribes, and other interested parties regarding the development of a Memorandum of Agreement (MoA). Consultation was conducted in accordance with established operating procedures as noted in the Integrated Cultural Resources Management Plan (ICRMP) (Navy, 2016c).

[COER: Something seems inherently wrong-headed as a country when adverse effects to a large and extremely unique historic area is relegated as secondary to military convenience and preference. The Sound of Freedom does not work anywhere or everywhere. There are places where that *sound* can go and fit in just fine. Ebey's Landing Historic Preserve is not one of those places.]

FROM TABLE 6-1: Endangered Species Act (16 U.S.C. section 1531 et seq.) (Section 106, 54 U.S.C. 300101 et seq.) [Authority: t seq.) [Authority: U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS)] [EIS Section: 3.8 and 4.8, Biological Resources]

The Navy has consulted the NMFS and determined that the Proposed Action may affect, but is not likely to adversely affect, the humpback whale or Southern Resident killer whale and ESA listed fish species under the NMFS jurisdiction (i.e., green sturgeon, eulachon, Chinook salmon, Hood Canal summer-run chum, steelhead, bocaccio rockfish, and yelloweye rockfish). The NMFS concurred with the Navy's finding for the humpback whale and southern resident killer whale on July 20, 2017, and for NMFS ESA-listed fish species on April 23, 2018. The Navy also consulted with the USFWS, which concluded in its June 14, 2018, Biological Opinion that the Proposed Action is not likely to jeopardize the continued existence of the marbled murrelet and may affect, but is not likely to adversely affect, the bull trout.

FROM TABLE 6-1: Marine Mammal Protection Act (16 U.S.C. section 1361 et seq.) [Authority: NMFS] [EIS Section: 3.8 and 4.8, Biological Resources]

The Navy has consulted the NMFS and determined that the Proposed Action may affect, but is not likely to adversely affect, the humpback whale or Southern Resident killer whale and ESA-listed fish species under the NMFS jurisdiction (i.e., green sturgeon, eulachon, Chinook salmon, Hood Canal summer-run chum, steelhead, bocaccio rockfish, and yelloweye rockfish). The NMFS concurred with the Navy's finding for the humpback whale and southern resident

killer whale on July 20, 2017, and for NMFS ESA-listed fish species on April 23, 2018. The Navy also consulted with the USFWS, which concluded in its June 14, 2018, Biological Opinion that the Proposed Action is not likely to jeopardize the continued existence of the marbled murrelet and may affect, but is not likely to adversely affect, the bull trout.

[COER Comment: We have prepared an extensive analysis with outside expert (Dr. Rob Dillinger) analysis challenging the USFWS conclusion regarding impacts of the proposed naval actions on the marbled murrelet. While the USFWS analyses were for the most part thorough and supported by COER and Dr. Dillinger, we are confident that the Biological Opinion conclusion falls short of being scientifically defensible. Instead, it seems to roll over and submit as a weak agency to a powerful one. The additional Growlers will increase the environmental noise and, hence, the impacts on murrelets. That adds to the impacts of Navy actions detailed in another EIS, the Northwest Training and Testing (NWTT) EIS. These two EISs split the impacts into two smaller, less onerous factions, rather than one large impact, a common and disingenuous military practice of EIS “segmentation.”

Murrelets are affected by Growler noise and its related electro-magnetic warfare training, which with the added Growlers, increases impacts in areas of nesting and feeding. Similarly, the wide range of missile-related and vessel-related naval activities in Washington State addressed in the NWTT EIS will impact murrelets via direct and indirect mortalities of adult and subadult birds, as well as potential suppression of mating and nesting, ability to provision nestlings, and survival of fledglings into the subadult marine population. Segmentation may be a successful tactic to disperse, redistribute and hide impacts, but it lacks a moral compass.]

FROM TABLE 6-1: Island County Critical Areas Ordinance (17.02) [Authority: Island County] [EIS Section: 3.8 and 4.8, Biological Resources]

This EIS considers all habitat protected pursuant to this ordinance. Island County was provided an opportunity to comment on this EIS. Responses to comments are provided in the EIS (Appendix M).

FROM TABLE 6-1: Clean Water Act (33 U.S.C. section 1251 et seq.) [Authority: USEPA; U.S. Army Corps of Engineers (USACE)] [EIS Section: 3.9 and 4.9, Water Resources; 3.13 and 4.13, Infrastructure]

The Proposed Action is compliant to the extent practicable with the Clean Water Act.

FROM TABLE 6-1: Safe Drinking Water Act of 1974 [Authority: USEPA] [EIS Section: 3.9 and 4.9, Water Resources; 3.13 and 4.13, Infrastructure]

This EIS considers impacts to groundwater and concludes that there will be no significant impacts to groundwater and aquifers from the Proposed Action.

COER: In our February 2019 comments on aqueous film-forming foam (AFFF), COER raises serious unanswered questions related to continued use of past AFFF stockpiles and future use of related replacement compounds for use at Ault Field and OLFC. Those unspecified compounds and their potential toxicity and persistence in the environment have not been explained or verified. To date, use of current and future AFFF fire-fighting foam remains a threat to humans and terrestrial and aquatic animals, both vertebrate and invertebrate. As a result, COER finds the EIS no-impact conclusions

inadequately substantiated and premature as related to compliance with the Safe Drinking Water Act of 1974 and the Clean Water Act.

FROM TABLE 6-1: Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low income Populations [Authority: Navy] [EIS Section: 3.10 and 4.10, Socioeconomics; 3.11 and 4.11, Environmental Justice]

The Navy has concluded that minority and low-income populations are living within the affected area (environmental justice communities), and there are significant impacts outlined within the EIS to populations living within the affected area (noise impacts to those living within the 65 dB DNL noise contours and overcrowding at Oak Harbor School District schools). However, the Navy has determined that there will be no disproportionate high and adverse human health or environmental effects from noise, Clear Zones/APZs, or school overcrowding on minority populations or low-income populations. Impacts on housing availability and housing affordability could have the potential to have a disproportionately high and adverse impact on low-income communities. The Navy further acknowledges that the increase in the cost of housing and the decrease in available properties may have a negative impact on low-income residents who typically spend a larger proportion of their income on housing than the general population.

[COER: We agree that low income families will be hurt by the increased demand for housing.]

6.3 Unavoidable Adverse Impacts

This Environmental Impact Statement (EIS) has determined that the alternatives considered may result in significant impacts with respect to noise and education from implementation of the alternatives. Avoidance and minimization of adverse impacts were integrated into the development of the alternatives and existing Navy policy to the greatest extent practicable and were successful in many resource areas where there are impacts to the resource, but with compliance with local regulations and/or existing Navy management strategies, these impacts were minimized or not determined to be significant. Significant adverse impacts may not always be completely avoided, as with impacts to education and impacts on the community from noise from implementation of the alternatives. These impacts are summarized by resource area below. All impacts from the implementation of the alternatives are described in detail in Chapter 4 of this EIS.

[COER: First, the heading of this section attempts to spin reality. That is, the major impacts are avoidable, and it is only because of intransigent naval thinking that the impacts are problematic. Hence, an appropriate heading would read, “Not Avoiding Adverse Impacts.”

The EIS never came close to a credible analysis of the most relevant question: At what point on the sliding scale of impacts do Growler activity harms warrant modifying the proposed action—what is the acceptable level for collateral damage? In this FEIS the Navy obviously has a much higher level of tolerance for civilian damage than do the damaged civilians. What is missing is a reasoned analysis of the training options and locations that would provide necessary pilot training and those costs juxtaposed against the hardcore costs imposed on the local community. While those other training options at alternative venues would involve dollar and convenience costs, so does the Navy’s preferred option impose a wide range of significant costs on the impacted communities and residents, costs paid multiplicatively by the local community, historic places, etc.

The EIS avoided analyzing that. Instead, the Navy opted, with minimalistic discussion, to discount other alternative venues and insist that none will work for them. That, of course, is ridiculous. No one believes for a second that if the NASWI complex were rendered unusable for any reason that the Growler mission would have to end. Done for.

No, the Navy's rejection of other training venues was sponsored by the Navy's inbred thinking that its national defense card gives it an A-OK to do whatever it wants. That may be an unfortunate reality, but it is a sad excuse and commentary when such unchecked authority unnecessarily runs-up such an extraordinary, unnecessary, and unacceptable non-military price tag.]

6.3.1 Noise Associated with Aircraft Operations

Implementation of the Proposed Action would increase noise perceived in the region. New areas that were not previously impacted by noise generated by Navy aircraft operations would be under the 65 decibel (dB) day-night average sound level (DNL) noise contour. Although some of these areas are over water, others are over land and would therefore result in additional people living within the 65 dB DNL noise contour. [This just reinforces the Navy's determined intent to sidestep current scientific advances and instead recycle old, outdated science—the 65 dB DNL high annoyance threshold—because it works much better for them than the actual threshold of 55 dB.]

Additional supplemental metrics were utilized to identify potential impacts from noise exposure that could be realized under the alternatives. These include additional events of indoor and outdoor speech interference, an increase in the number of events causing classroom/learning interference, an increase in the probability of awakening, and an increase in the population that may be vulnerable to potential hearing loss of 5 dB or more. [Yes, while acknowledging the impacts here, as we commented above, there is no objective consideration of how these significant impacts might be actually solved. Instead, the Navy is content to ignore the human price tag and sweep under the carpet the only ways to truly reduce or avoid the costs. Furthermore, the impacts above are understated because on-site noise analyses show the modeled ubiquitously applied point of interest data significantly under-represents the frequency of exposure (as discussed in prior COER comments).]

With respect to recreation, noise may detract from the experience and enjoyment of visitors to parks and their perception of a landscape. Studies of the effects of aircraft noise on outdoor recreation outside of wilderness areas are limited; however, aircraft noise has been found to be a primary environmental factor causing visitors to parks to become annoyed and may detract from their overall experience of a park or recreational activity. Studies of aircraft noise effects on outdoor recreationists show that reported annoyance by outdoor recreationists or changes in their use of parks and other outdoor recreation areas depend upon multiple factors such as their frequency of use of the recreation area, the recreation activities in which they are engaged, and the degree of change in noise exposure. People who use a park less frequently are more likely to change their patterns of use in response to changes in noise exposure. The type of activity also plays a role in response to noise, with outdoor recreationists who value natural experiences more likely to change their patterns of use in response to aircraft operations. Overall, implementation of the Proposed Action at Naval Air Station (NAS) Whidbey Island would result in localized significant impacts to recreation as a result of increased noise exposure at Ebey's Landing National Historical Reserve, various county and municipal parks and recreational areas, and private recreational facilities under some alternatives and scenarios when aircraft are operating in the area (see Table 4.17-1).

[COER: Yes, here too the Navy admits to creating problem after problem, and yet nowhere asks or examines the question, does that have to be? Instead taking the path less preferred to repositioning FCLPs to acceptable practice venues, the Navy has chosen the path it finds convenient and that path is straight through the heart of the Whidbey Island and Salish Sea civilian community.]

6.3.2 Education

In Oak Harbor by 2021, it is estimated that enrollment of the elementary schools will again exceed the designed capacity by approximately 600 students (Gibbon, 2016). Given this serious overcrowding issue already facing the Oak Harbor School District, the potential increase of between 121 and 226 additional students would further exacerbate the overcrowding problem and have a substantial negative impact on the district. The majority of the additional students would be elementary-school-aged, further skewing the district's enrollment in favor of the younger grades. Additional portable classrooms would have to be purchased, and additional staff would need to be hired to accommodate these students. Because state aid and federal impact aid have been at a static or declining per-pupil level, additional local funding sources would likely be required to finance the additional expenditures, if present programming is to be maintained. This EIS assumes all military personnel and their families are living off-base; therefore, some additional revenues would be collected in mortgage and rental payments.

[COER: Ignored here are the avoidable impacts of noise on classroom and at home learning and study. Those impacts too are avoidable by moving Growler training.]

6.3.3 Mitigation

This EIS does not identify any mitigation measures considering the degree of environmental impacts for the implementation of alternatives but does identify measures that could be taken to develop suggested mitigation techniques, including, but not limited to, stormwater retention practices. During the National Environmental Policy Act (NEPA) process, through comments received during public and regulatory agency review of the EIS, there is the potential to identify and develop new mitigation measures. Appendix H (Noise Mitigation) provides an overview of existing, voluntary noise-mitigation measures that are in place at the NAS Whidbey Island complex. Appendix H also describes potential noise mitigation measures that are being evaluated for potential future implementation as the Navy takes a proactive approach to noise mitigation and addressing community concerns. Under the Section 106 process, further consultation and development of a Memorandum of Agreement (MoA) to address adverse effects on historic resources is ongoing. The Navy is consulting with the Washington State Historic Preservation Office, the Advisory Council on Historic Preservation, tribes, and consulting parties regarding the MoA. If additional mitigation measures are identified during this process, they would be identified in the Record of Decision. These measures would be funded, and efforts to ensure their successful completion or implementation would be treated as compliance requirements. [The only things identified to reduce Growler noise are hush houses and chevrons, and neither have been shown to be effective². The only way to mitigate Growler noise is to relocate Growler training to environmentally appropriate areas where civilians, critical lands, and listed wildlife would not be subjected to toxic noise.]

6.4 Relationship between Short-Term Use of the Environment and Long-Term Productivity

NEPA requires an analysis of the relationship between a project's short-term impacts on the environment and the effects that these impacts may have on the maintenance and enhancement of the long-term productivity of the affected environment. Impacts that narrow the range of beneficial uses of the environment are of particular concern. This refers to the possibility that choosing one development site reduces future flexibility in pursuing other options or that using a parcel of land or other resources often eliminates the possibility of other uses at that site.

In the short-term, effects to the human environment with implementation of the Proposed Action would primarily relate to the construction activity itself. Construction activities under the alternatives as well as relocation of personnel and aircraft would temporarily increase air pollution emissions and noise in the immediate vicinity the affected area and would be short term in nature. Depending on their location, humans and animals would experience increased levels of noise during airfield operations. Terrestrial wildlife, including small mammals, reptiles and amphibians, and breeding birds, and marine species are not expected to see changes in long-term productivity from the implementation of the Proposed Action because local wildlife are already exposed to a high level of long-term air operations and other human-made disturbances. The wildlife has presumably habituated to the very high level of noise and visual disturbances at NAS Whidbey Island. There would be minimal habitat and vegetation removal from construction activities because all construction would occur along the existing flight line. Implementation of any of the alternatives would increase the flight activity in and around NAS Whidbey Island airspace.

Implementation of the alternatives may require development of Accident Potential Zones at Outlying Landing Field Coupeville and would increase noise in the area at both Ault Field and Outlying Landing Field Coupeville during operations. Through implementation of the Air Installations Compatible Use Zone update process, areas may be identified to have future land use restrictions in order to remain compatible with the Navy's mission. These restrictions have the potential to impact future development in the area.