Citizens of Ebey's Reserve October 2018 Comments on: Residents & National Parks

Final Environmental Impact Statement for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island

The following are Citizens of Ebey's Reserve (COER) comments on the Final Environmental Impact Statement (FEIS) for EA-18G "Growler" Airfield Operations at Naval Air Station Whidbey Island (NASWI). They are additional to comments we (COER) submitted on the draft EIS in February 2017. While we have not had time to do a thorough dissection of the FEIS, we have to date not found COER's earlier input considered or thoughtfully addressed in the FEIS. Our review of the Navy's response to all the comments in Appendix M seemed to pretty much reflect the same talking points made during the EIS drafting process and before. Same old smoke and mirrors and a unmistakable messaging: "It's our way, or your highway."

This set of comments on the impacts on residents and national parks (RN) is accompanied by a separate file on the impacts on endangered species.

Addendum RN.1: Growler Engines

We understand Growlers, existing and yet to be delivered to NASWI, are equipped with different engines: the F414 enhanced engine and F414-GE-400 series engine and the F404 engine. We further understand there is a significant difference in noise produced by these different engines. The FEIS does not address which engine or combination of engines was used in developing the noise contours presented in the FEIS. If the FEIS did not properly account for the engine noise differences, the contours would not accurately reflect actual DNLs or other noise metrics. [see, https://www.geaviation.com/sites/default/files/datasheet-F414-Family.pdf]

Addendum RN.2: Section 106 Process

COER has actively been an active participant in the Section 106 Process and has presented at least three sets of written comments; they are attached as Appendix RN.A. In that written and verbal discourse, we find it impossible to concur with the Navy's

dismissal of the impacts. The evidence in Appendix RN.A clearly shows the impacts would be horrendous if the Navy's September 2018 preferred option is implemented.

Addendum RN.3: Navy Encroachment on Coupeville

The Navy's 2018 intent—to increase OLFC operations fourfold—would upend 13 years of Island County land use developed consistent with Navy's prior guidance in the 2005 Air Installations Compatible Use Zone (AICUZ). That planning guide informed Whidbey Islanders that there would be 6120 annual FCLP operations at OLFC. This was also inferred in 2015 before Judge Zilly[1] and that intent was even admitted to in the FEIS, where the Navy explained (see page M-41), "*During the 2005 AICUZ process, it was determined that additional APZ coverage [at OLFC] was not warranted at that time because operational numbers* [i.e., 6120 operations] *were below the threshold for the establishment of APZs at that location.*" Before 2017, there was no mention about doubling operations at OLFC, let alone quadrupling.

In a September 2018 Whidbey News Times editorial Capt. Matt Arny, commander of Naval Air Station Whidbey Island, addressed the military's AICUZ Program correctly noting that the AICUZ purpose is to serve as "*a land use planning tool…[that] works* ***long-term*** *with local communities to address incompatible land uses."*

The AICUZ program's mission is, indeed, to ensure that military bases do not create conflicts with surrounding civilian land uses, and it requires the military clearly and forthrightly detail its intended ***long-range*** plans for activities that could impact communities. The AICUZ is supposed to enable local governments, like Island County, to plan and facilitate compatible land-uses that preclude encroachment problems.

The most recent AICUZ was in 2005. It largely focused on how many of those landing practice "operations" the County and Coupeville should anticipate and plan to accommodate in facilitating land uses.

That clearly stated number was 6120 annual operations at Outlying Field Coupeville, which Island County, the town of Coupeville, and the residents of Central Whidbey

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1 In August 2015, COER seeking injunctive relief: The Navy before Judge Zilly had the opportunity to inform all that of its intent to hugely increase that number of 6120 operations. Instead, the Navy indicated it would hold to that number, neither admitting or dismissing any increase, small or large, beyond 2015. That non-commitment commitment certainly gave no one cause to believe there would ever be 24,100 operations at OLFC.

accepted in good faith and relied on as “the” number to use for planning in areas adjacent to the flight paths--in other words, most of the Coupeville area.

Relying on that 2005 AICUZ direction, residential, commercial, and public facilities development proceeded accordingly and relatively unabated over the past 13 years, including new homes, the Island County Transit depot, Ryan’s House Hope for Kids, the new wing at Whidbey Health, to name just a few.

Then, in late summer of 2018 the Navy announced that it instead intends to conduct 24,100 FCLPs annually at Outlying Field Coupeville, nearly a 4-fold increase from the commitment of 6120 operations. If implemented, this will drastically upend and nullify 13 years of land-use planning and development that relied in good faith on that 2005 commitment.

In its reliance upon the 2005 AICUZ, Island County planning did not need to consider downzoning or implementing “accident potential zones” or withholding building permits and restricting development in the areas around Outlying Field Coupeville **because at 6120 operations the 2005 AICUZ did not call for accident zones.** Now, 13 years later, the Navy wants to take that back.

The increase in noise and implementation of accident zones in Coupeville will inflict enormous damage on property values and the county budget will likewise suffer because of a diminished tax base, as well as create a residential upheaval and exodus of the area.

The proposed 4-fold explosion to 24,100 operations makes a mockery of the 2005 AICUZ that misled the public’s time and County dollars spent in crafting appropriate land uses, and it reveals total disregard for the private and public monies spent in developing properties and uses. It would change the culture of Central Whidbey Island by devastating property owners, businesses, tourism, wildlife, and appreciation of our historic properties. Not surprisingly, this proposal has not been well-received and has generated widespread and community discord and understandable anger.

On a national scale, it raises serious questions about the credibility and value of the AICUZ program and points to a need for congressional review and oversight. What good does it do any military community to rely in good faith on an AICUZ that fails its mission so drastically and capriciously unravels 13 years of progress?

Because of the AICUZ assurances to Island County to plan and develop the OLFC area based on 6120 operations, and no indication of greater use needs, let alone 4 times that, COER maintains the Navy must honor that commitment and hold to 6120 operations.

Addendum RN.4: Path 14 vs. 32

Because the Navy now can use Path 14 as well as Path 32, the Navy should split the operations to 50% on both paths, not 30% on path 14 and 70% on path 32.. In fact, prevailing southerly wind conditions favor Path 14 use, especially during 7 months of fall though spring (but see RN.4 below). We challenge the EIS conclusion that the prevailing winds favor use of path 32, as stated on page M-25 of the EIS: "*Based on meteorological conditions at OLF Coupeville, the projected runway utilization for Runway 14 is approximately 30 percent, and the remaining percentage is to be utilized on Runway 32.*" Carrier jets always land and takeoff into the wind. Hence, southerly winds (which predominate from fall through spring), favor the use of Path 14, not 32. This matter of the prevailing wind direction, as well as windless days, has been checked by COER and it is easily verifiable. It is a simple matter we will not burden our comments with that at this time.

The Navy is iteratively on record as seeking to duplicate to the best extent possible carrier landing conditions when conducting FCLPs; hence, landing and taking off into the wind. The other critical aspect of is density altitude, which is consistent for both paths 14 and 32 on any given day. So, the unanswered question is why use path 14 only 30% of the time, when wind direction favors its use at least 50% of the time.

And an attendant question, since density altitude at OLFC is not at all similar to density altitude pilots will experience in the South China Sea or the Persian Gulf, but potential practice sites in Nevada and California are similar, why then is OLFC being used instead of those sites that would provide more realistic training?

Addendum RN.5: Inadequacies in Noise Impacts Analyses

COER's initial comments on the draft EIS explained that the 65-dBA day-night (DNL) has been invalidated and is no longer the *best available science*. As explained by international noise expert, Sandy Fidell, in COER's February 2017 draft EIS comments, the Shultz curve and its 65 DNL high-annoyance threshold has been found to be erroneous and that the correct level is actually 55 dBA DNL. That correction is supported by the international scientific community of about 100 nations, as well as Federal Interagency Committee on Noise (FICON), the American National Standards

Institute (ANSI), and the International Organization for Standardization (ISO) The final EIS, however, not only ignores that finding **but continues to misrepresent the fallacious and invalidated 65-dBA day-night (DNL) noise metric as credible, presumably to keep the impacts less:**

> DNL has been determined to be a reliable measure of long-term community annoyance with aircraft noise and has become the standard noise metric used by the FAA, USEPA, DoD, Federal Interagency Committee on Noise, American National Standards Institute (ANSI), and World Health Organization, among others, for measuring noise impacts…Research has indicated that about 87 percent of the population is not highly annoyed by outdoor sound levels below 65 dB DNL (FICUN [Federal Interagency Committee on Urban Noise], 1980). (From FEIS, page 3-18)

That last statement, were the Navy to actually use the *best available science*, would be 55 dB DNL, not 65 dB DNL.

In addition to that egregious misrepresentation, COER's original comments with Sandy Fidell's expert input called attention to the fact that the noise contours for OLFC were understated because they averaged DNLs over 365 days rather than busy days (days of OLFC use). Busy-day averaging, as documented and explained by Fidell, is standard practice for airfields not used on a daily basis (e.g., the outlying field for Naval Air Station North Field[2]), but used intermittently, like OLFC. Nevertheless the FEIS continued to calculate DNLs for OLFC based on 365-day averaging, rather than busy-day averaging. [see Section 3.1.2.2.1 Average Annual Airfield Operations] Again, instead of an efficacious application of the latest scientific information, the strategy seems to have been to select a tool that made the impacts appear far less.

And the FEIS further ignored on-site noise testing (JGL Acoustics), as used and relayed by another international acoustics expert, Paul Schomer, who consulted for COER. His comments on the draft EIS, revealed that thousands of residents and businesses (e.g., recycle center, Ryan's House for kids) are experiencing hundreds of times over the noise dose exposure threshold employed by the military. Personnel working in areas above that threshold are placed in a special health protection program.

Why are citizens throughout the Coupeville and Ault Field area not included in the same program that Navy personnel are automatically enrolled in wherever the noise dose is

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2 "The shape of the contours primarily represents the influence of flight tracks, including a large number of Touch and Go (T&G) and overhead approaches, modeled as an average busy day." http://www.imperialbeachca.gov/vertical/sites/%7B6283CA4C-E2BD-4DFA-A7F7-8D4ECD543E0F%7D/uploads/AICUZ_Report_FINAL_CNO_Approved.pdf (page 4-6)

exceeded? Apparently civilians are not the Navy's problem, even though the problem is of their making.

Addendum RN.6: Population in Noise & APZ Zones

Under alternative 1, the population living within the 65-dB DNL at Ault Field and OLFC combined will be about 12,600 to 13,100, depending on the scenario (A-E; FEIS Table 4.2-1). That represents population increases from the no-action scenario of:

- 2% to 15% more at Ault Field area
- 23% to 56% more at OLFC area
- 13% to 17% more at Combined areas

The operational percentage increases for OLFC are about 4 to 10 times the increases projected for Ault Field. The fairest option would be Scenario C, which would increase the affected population by about 23% at OLFC and by about 15% at Ault Field. In terms of transition from the acustomed noise levels (no-action) Scenario C would bring about the least disruption to lives and economic impacts at both locations. And, importantly it would reasonably enough comport with and honor the Navy's 2005 AICUZ, which tacitly informed the county to plan for 6120 operations at OLFC, making no mention of operations increases (discussed in detail in Addendum RN.3).

That said, we cannot stress enough that the populations and acreages presented in FEIS Table 4.2-1 are understated. As discussed in RN.6 above, the 65-DNL is wrongly presented by the Navy as the population that would meet the "highly annoyed" threshold. That eroneous threshold has been invalidated by the international scientific community; it is actually 55 dB DNL. Were that scientifically valid threshold used instead of the invalidated one, the tally of highly annoyed individuals and related acerages would have been much more. Likewise, use of standard-protocol busy-day averaging would have further increasd the population significantly in both the 55 or 65 DNLs.

Relatedly, the FEIS correctly explains, "*The greater than 75 dB DNL noise contour is the area where there is the highest level of community annoyance associated with aircraft noise. Therefore, these populations would be significantly impacted.*" [page 4-30] It follows, the next greatest impact would be in the 70–75 dB contour. The two together form the highly toxic noise zone.

As extrapolated from the FEIS preferred alternative (Scenario A in Table 4.2-1), the population in the >75 DNL contour at OLFC increases from 583 to 1374, a 2.36-fold increase (236%) over the most recent two decades of established usage, i.e., over the

status quo *no-action alternative*. At Ault Field the population increases by just 139 from 3581, or by only 0.04%. More dramatically, the population in the combined 70-75 DNL plus >75 DNL contour ("toxic noise zone") at OLFC increases from 583 to 1524, or 261%, while at Ault Field, the population actually decreases by −225. This is anything but consistent with the established 21st century usage or status quo, rather, it is a reversal (as discussed in detail in Section RN.9). Overall the preferred alternative adds about 1300 people to the toxic noise zone.

The Navy's dubious use of the above strategies is understandable because even using the bogus methods results in unjustifiable population numbers. The best solution would be to hold the OLFC and Ault Field FCLP operations to existing status quo (no action) levels and relocate all other FCLP operations. This is not at all the impossible non-option the Navy has been unconvincingly trying to sell, as discussed below in Addendum RN.7.

Turning to APZ impact comparisons at Ault and OLFC, Table 4.3-8 in the FEIS indicates the following for population tallies in the Clear+APZs:

	Number of Individuals in APZ	
	No Action	Proposed Action*
Ault	1860	1860
OLFC	96	773

*Same for any of the scenarios.

The increase at OLFC from 96 to 773 (includes 141 children under age 19) represents over a 7-fold increase from the no-action alternative, compared to no increase for Ault Field under any of the scenarios. Given that most OLFC-area homes in the 75-DNL contour would very likely be within the conceptual APZs and because about 1000 people live in Admirals Cove alone, we are confident that the 773 estimate falls well short of the actual number.

It is obvious from the above that the overall impacts of the various scenarios on the two separate communities are least under Scenario C (80% Ault, 20% OLFC) because (1) the changes from status quo would be minimized for both locations, rather than heavily transferred to OLFC, and (2) because the social upheaval, devastating economic impacts, and denigration to our national parks would be minimized rather than maximized.

Addendum RN.7: Impacts on Livability

The FEIS iteratively attempts to downplay the impacts on residents in the OLF area; for example, the proposed increase in operations at OLFC from 6120 to 24,100 operations will only increase exposure from 1% to 4% of the time. That 4% statistic disguises the actual impacts. A single session of 3-5 jets circling the outlying field (OLF) normally lasts about 40 to 45 minutes. Most folks can endure and work around one session in a day. Two sessions becomes intrusive, and anything over that is exasperating and a major impact on one's life. Three sessions with short breaks in between takes about 3-4 hours out of one's 16-hour non-sleep day or about 25% of the day.

If the Navy averages 3 sessions (240 operations) per OLF practice day, it would require about 100 days each year to compile 24,100 operations. That amounts to about 27% of the days in the year being devalued, disordered, denigrated, and disrupted. For example: Dinner guests?—no way. Business phone conversations?—impossible. Watching TV?—nope. Afternoon walk with the dog?—not today Fido. Evening bike ride?—forget it. And so much more.

Many folks try to arrange their frustrated schedules to avoid scheduled practice sessions. Some even move for several or more days to other accommodations.

And, when scheduled practices are cancelled, it expands the number of days compromised and adds to the takings. For example, in 2017 the cancellations amounted to about 30% of the scheduled days. That cancellation rate would add about 30 days to the 100 above, or about 130 days (36%) each year compromised by OLF practice.

But there's more: "high tempo" years, which significantly expand the number of operations and practice days. So on those years it's maybe 40% of the days in the year. "Just 4% of the time" sounds a lot better, but it hides the real impact.

Addendum RN.8: Disproportionate Impacts

COER finds this conclusion from the DEIS incredible:

> However, as described in Section 3.3.2.4, unless there is a place where children congregate within an APZ, such as a school, there would not be a disproportionate safety risk to children. **There are no schools or daycare centers** within the existing Clear Zones, existing APZs or conceptual APZs at Ault Field and OLF Coupeville under any of the alternatives or scenarios. A small portion of Rhododendron Park falls within the Clear Zone and within the conceptual APZs at OLF Coupeville. **However, this area of the park is used for passive recreation and is not expected to be an area where children congregate.** Therefore, there are no disproportionate environmental health and safety risks to children as a result of possible

> aircraft mishaps under any alternative or scenario for both the average year and high-tempo FCLP year. [Page 4-179]

That claim--that the proposed actions will not create disproportionate impacts or risks to children--conveniently dismisses reality. As we discussed in our original comments on the draft EIS, there are three areas of disproportionate aggregations involving children (age 19 and under) within the proposed APZ -1:

> (1) The Admirals Cove Swimming Pool is open 4 summer months in the year and there is strong interest in covering the pool so it is open year round. The life guards working there are almost always older teens, and the pool is predominately used by teens and younger children, sometimes but not always accompanied by an adult. In addition, the pool has traditionally been used for teaching children swimming lessons, as sponsored by the local Lion's Club.
>
> (2) Rhododendron Park has athletic fields for youth softball and soccer. Both the pool and park usage are greatest in the warmer months of the year, which coincides with the heaviest FCLP use of OLFC because of weather constraints at other times of the year.
>
> (3) Just north of the OLF air strip is a home for up to 100 homeless Whidbey Island teens, Ryan's House. Not exactly what one thinks of as a *daycare facility*, but it is 100% for children (as defined by the FEIS, i.e., teens and under).

And, within just 2000 to 3000 feet of western boundary of the proposed APZ for Path 32 is an elementary school, a middle & high school, a child day-care facility, the barracks of Fort Casey now used to house large youth groups numbering in the 100s, and another public swimming pool at Fort Casey. All of these facilities are overwhelming places "where children congregate" and are disproportion in number to the overall population age composition. While those facilities are not under but immediately adjacent to the proposed Path 32 APZ, they are so very close that any of those youth venues could be impacted by a Growler incident (accident). The disproportionate risks to children are clear and certain, yet the FEIS opted to ignore and misrepresent.

Addendum RN.9: OLFC Historical Paradigm

With the late 1960s OLFC transition to FCLP use and the ramp up in operations that followed there began a strong public resistance to the noise, yet the Navy's historical analysis made no mention of the citizen group (WISE) that formed in the 1990s to curtail the Prowler FCLPs at OLFC. They reached a settlement of sorts; it did not last long unfortunately and is now almost forgotten. So, this is an old problem that has grown

worse with time and a noisier jet. This decades-old noise problem and abuse is a problem overdue for a solution, not exacerbation via myopic square-peg hammering.

The country is no longer uninformed or dismissive about detrimental noise. We understand the noise/health and safety risks: risks to fetuses of pregnant women, to school-age children's learning and hearing, and to a wide variety of health and livability issues. And we know about the investment and economic drags, including how tourisms and park visitors react negatively to invasive noise. And we know how Growler noise drags and cripples the sanctity of our national-interest historic reserve, the first such in our country.

Nevertheless, the Navy has iteratively implied, including in the Section 106 analysis, that since they made a lot of noise at OLFC in the the last quarter of the last century, it facilitates some sort of grandfather rights io make that much noise in the future.

Of course, no grandfather rights were ever assigned, but if they were, what actual noise history might be used to assign such rights? Should it be an average of annual noise across time since the Town of Coupeville's incorporation, or even further back before that perhaps? There simply is no intuitive or logical starting point. The "*historical distribution*" of FCLP operations and what is meant by the preferred alternative being "*consistent with past levels of airfield operations*" is so vague it can be used and construed in whatever way suits the user's interest.

In the absence of credible answers, there are, however, several critical and potentially useful points that do have weight and relevance:

1. The most populous and affected area at OLFC is Admirals Cove, a subdivision of 430 homes (population of at least 1,135 individuals), nearly all of which will lie in the proposed APZ-1, as well as the toxic noise zone (see Section RN.6) for OLFC runway 32. The Admirals Cove Plat for that subdivision was recorded with Island County on July 1, 1963, in the same time frame the Navy was openly contemplating selling OLFC, as explained in the FEIS: "*Navy use of the OLF continued through 1963, when the Navy had made plans to sell the facility.*" Then, the Navy changed its mind in the late 1960s and decided to use OLFC for carrier landing practice, a new and different activity than its original usage intent and purpose. By that time, however, the subdivision was nearly sold out. So, if there is a grandfather right, it probably belongs to Admirals Cove.

2. For the past two decades, FCLPs at the outlying field have averaged 5751 operations per year (range 2548 to 9668), and that, by default and intended or not, established a reasonable usage expectation based on those most-recent 20 years.

3. Furthermore, the 2005 Air Installation Compatible Use Zone (AICUZ) supported that expectation by establishing 6100 operations at OLFC as the number that local governments should plan on going forward. It even stated that "*the current locally adopted [land-use planning tools] should remain unchanged...[and that] [m]aintaining the current local noise contours and land development regulations are supportive of continued protection of life, safety, and welfare of the local citizens*." [Section 8.1.2] Now, 20 years later, the Navy wants to take that back, obfuscate history, and encroach on those who invested in and put down roots under the Navy's misleading assurances that it was okay to do so.

That *status quo* expectation coupled with nothing in the AICUZ informing anyone to expect anything else, let alone a fourfold increase, is far more relevant than the Navy's hiding behind its undefined meanings of "history" and "consistency," or its bogus claim of an "insignificant change" from its preferred interpretation of history.

Instead of that pointless debate the semanics of "history," the last two decades of usage and the 2005 AICUZ actually establish the *status quo* and 21st century expectation, rather than a manufactured, outdated Vietnam War Era obfuscation. Even the FEIS recognizes that there is a *status quo* with a euphemism, the "*no-action alternative*."

Addendum RN.10: Concluding Comment

In a recent case (*Winter*, regarding sonar device harm to marine mammals) the Supreme Court held that "*even if plaintiffs have shown irreparable injury from the Navy's training exercises, any such injury is outweighed by the public interest and the Navy's interest in effective, realistic training.*" And pg. 28.7: As the Ninth Circuit has stated, "*when a district court balances the hardships of the public interest against a private interest, the public interest should receive greater weight.*" *F.T.C. v. World Wide Factors, Ltd.*, 882 F.2d 344, 347 (9th Cir. 1989).

While that is informative, the choice here is not binary: either Navy training *or* private interest. The question here is only how to best balance the valid need for training against the least disruption to private as well as public interests, such as, parks, wildlife, and schools, among others.

The Navy insists that acceptable FCLP training locations do not exist, even though from 2015-2017 they conducted 5500 to 8500 FCLP operations annually in locations from Virginia to California. The Whidbey Island Community easily recognizes there are costs and some levels of inconvenience involved in repositioning Growlers and/or FCLP

training. But no one really believes, outside perhaps some buffaloed politicians and agencies, that such transitioning is the *mission impossible* the FEIS tries to paint. And just as surely, an existing or brand new alternative training venue could be identified that would not inflict the insurrmountable issues attended to training in this residential, environmentally sensitive, and historically significant area.

Since the 1960s Coupeville and Oak Harbor, have paid more than their fair jet-noise share. Residents and children have suffered from indubitable mental and physiological health effects and hearing losses and endured educational disruption (both in schools and at home), social and outdoor activity sacrifiices, inability to conduct business conversations by phone, home and family time disruption, pet tramas, and time to find solitude to gather one's focus and composure after a hard day–those and so many more. And that does not include the impacts on our historic parks or our endangered wildlife (fully discussed in a separate file). And the noise impacts reach into the San Juan Islands and the Olympic Peninsula and even to the Okanogan Valley.

With those impacts and so many more Whidbey citizens have paid their share and more. It is time to move it -- the Growler FCLPs, if not all, then at least the new ones, and let the rest of our country pick up the slack that the Whidbey Island Community has paid for over the past 45 or so years. Half a century is enough.

The Navy sought to acquire 20,000+ acres in eastern North Carolina to build a brand new OLF for its Oceana base in the Norfolk area. If they could afford that there, they could afford to do it here in the barren wheat fields of central or western Washington. Whether that or another remote and currently unused or under-used airstrip or a current military venue (maybe one of those they have been using), just think of the problems the Navy could solve, instead of hammering on that very square peg:

1) Avoid putting children in school and families at home in undue crash risk jeopardy.

2) Bring an end to community discord and strife.

3) Preserve the sounscape sanctity and visitor usea an appreciation of our nation's first historic preserve.

4) Prevent the real estate depression that will afflict thousands of central Whidbey property and business owner's major lifetime investments.

5) Return to central Whidbey Islanders the rights to function like any other US citizen.

6) Show the public that the Navy will not dishonor its 2005 AICUZ commitment to 6120 operations at OLFC.

7) Demonstrate a genuine concern and respect for preserving our endangered species (as discussed in our separate ESA comments).

8) Mitiagate the inherent risks of single-siting all Growlers in one target location, one prone to earthquake destruction.

9) Respect the learning environment in our schools and our homes.

10) Act responsibly by taking action to thwart the real health risks associated with constant exposure to jet noise—that is, find a way to separate jets from civilian damage.

Finally (#11) show that being a "good neighbor" actually means being one.

- Appendix RN.A -

Citizens of Ebey's Reserve Review:
Section 106 Determination of Effect for Growler Operations at NASWI
August 15, 2018

Citizens of Ebey's Reserve (COER) herein addresses our concerns regarding the June 16, 2018, "Section 106 Determination of Effect for the EA-18G 'Growler' Airfield Operations at the Naval Air Station Whidbey Island Complex" (hereafter, 106 DOE), which includes its Outlying Field (OLF) in Coupeville.

The current 106 DOE lists 18 actions to mitigate the impacts of Growler noise on the Ebey's Landing Historic Reserve (hereafter, the Reserve) and its visitors. None of the measures suggested, however, minimize the noise. They are irrelevant measures that have no impact on avoiding or resolving adverse effects.

The only real solution is to relocate the noise created by Growler flight carrier landing practice (FCLP) operations (see Figure 1) from Whidbey Island to an environmentally suited and community-welcoming location. That option may be less convenient for the Navy, but it far surpasses the Navy's continued insistence on trying to force carrier training where it no longer can work and simply does not belong.

Desecration of this nation's first Historic Reserve, is not an acceptable option. This historical heritage must have maximum protections, not trivial "mitigation" measures. Protecting this Reserve is a delicate balance between the community, the people, and the land. If these relationships are broken – the Reserve will be broken.

On September 1, 2016, COER submitted a 22-page comment (attached) on your initial Section 106 call for comments. In examining your current 106 DOE, we note that it failed to address nearly all of the concerns COER raised. Below, we highlight the most critical failures. They fall into three broad categories: (1) technical errors and shortfalls, (2) impacts of Growler FCLPs on the Reserve, and (3) non-validity of the OLF historical paradigm.

1. Technical Errors and Shortfalls

Instead of applying appropriate noise metrics, the 106 DOE ignored the problems and relied on the misleading day-night noise level (DNL).

There are numerous problems with using the DNL metric to evaluate impacts on buildings and on Reserve visitors. We do not dispute that the DNL is a widely used metric, but its purpose was to provide a measure of community annoyance to noise, not to assess the impacts of loud noise on buildings or on the national park visitor experience, which is a rather specialized, almost binary form of annoyance and harassment. The reliance of the 106 DOE on the DNL metric creates a number of misuse issues, examined below.

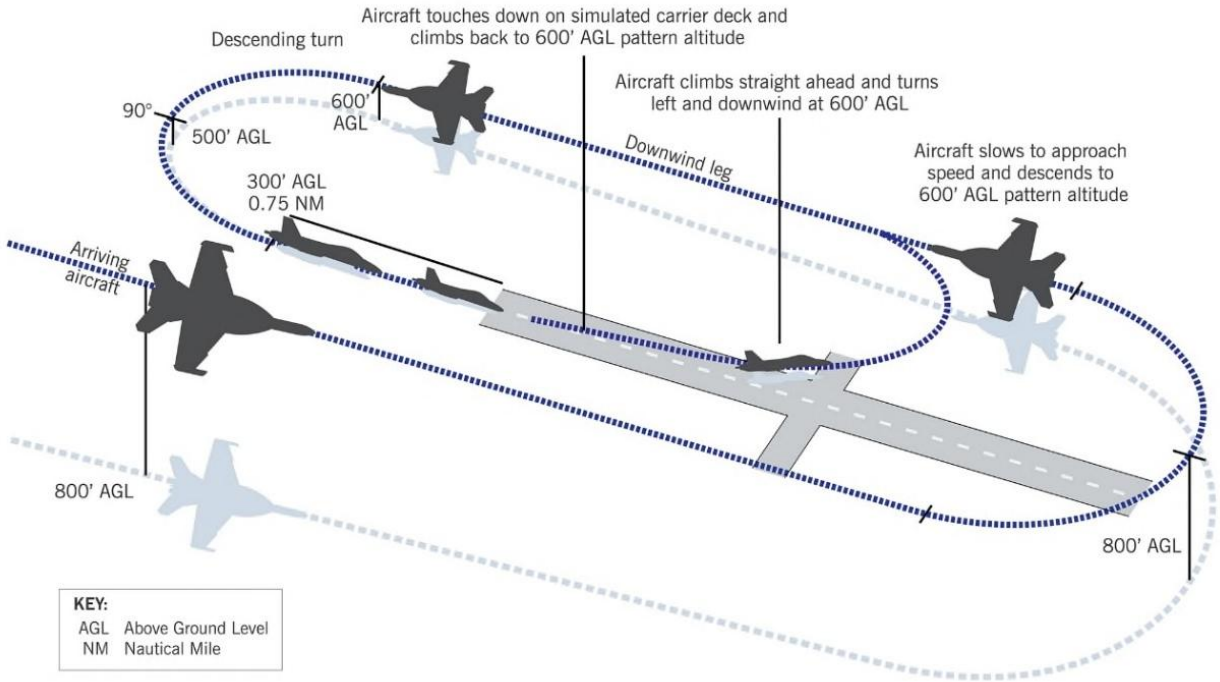

Figure 1: Schematic of an FCLP on the northeaster circuit, Path 14. Note the altitudes above ground (AGL).

(a) "Substantive Change" not Defined.—Page 55 of the 106 DOE speaks of areas where *substantive change* in DNL (delta DNL) was estimated via modeling. There is reference to a 5% change, but it is not clear if that was supposed to equate to *substantive*. That is, there was no definition of what constituted "substantive" and whether it was defined before or after the noise modeling was conducted, or whether it is just a subjective call of some sort. The basis and rationale for "substantive" should have been decided and justified prior to conducting any analysis to determine delta DNA. That is established expectation that precludes post-results fudging and, hence, is normal scientific protocol.

(b) Modeled DNL Contours without Verification: Studies have revealed that modeled noise has significantly underestimated noise measurements taken on-site. A study of 36 sites around Raleigh–Durham airport found the modeled noise contours consistently underestimated the actual on-site contours by 5-15 decibels; that means actual noise levels were about 50% to 150% louder than NOISEMAP (1991–1998) and INM (1999–2002) models had projected.[3]

Modeled data does need to be verified with on-site data. The mere fact that "*the latest software*" was used, does not establish reliability without actual on-site validation, as stated by the World Health Organization[4]:

> While estimates of noise emissions are needed to develop exposure maps, measurements should be undertaken to confirm the veracity of the assumptions used in the estimates…As indicated in Chapter 2 modeling is a powerful tool for the interpolation, prediction and optimization of control strategies. However, models need to be validated by monitoring data…the accuracy of the various models available depends on many factors, including the accuracy of the source emissions data...

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[3] Technical Report on Preparation of Day-Night Sound Level (DNL) Contours of Aircraft Noise During 2003 Raleigh-Durham International Airport North Carolina. March 2005. HMMH Report 295097.001 . Harris Harris Miller & Hanson, Inc., 15 New England Executive Park, Burlington, MA 01803
< http://198.1.119.239/~flyrduco/rduaircraftnoise/noiseinfo/downloads/RDU_2003_DNL.pdf >

[4] Berglund, B., Lindvall, T. and Schwela, D.H (Eds.). 1999. HWO. Guidelines for community noise. World Health Organization, Geneva. < http://www.bvsde.paho.org/bvsci/i/fulltext/noise/noise.pdf >

The 106 DOE modeled noise contours, however, are not validated by on-site measurements, so the contours cannot be reliably upheld. The Navy curiously continues to refuse on-site noise monitoring, although they have been asked to do so by the State of Washington and the Environmental Protection Agency, among many others.

(c) The 65-dBA DNL Now Invalidated.—The military proclaims that it uses the best recent science available when conducting environmental assessments. This bold statement seems to conflict with its continued reliance on the now-defunct 65-dBA DNL as having some sort of scientific, yet unspecified function. The 106 DOE insufficiently attempts to justify its use simply because it has been widely used in the past.

The 65-dBA DNL was developed for only one purpose: To provide an index to assess community annoyance to noise. In 1992 the Federal Aviation Administration (FAA), based on a synthesis of 1978 studies, established in Regulation Part 150 that a maximum average DNL of 65 dBA or above is incompatible with residential communities. That 65 DNL was derived by the Federal Interagency Committee on Noise (FICON) based on a dose/response curve—the Schultz Curve—showing that 12.3% of the population is highly annoyed by aircraft noise at a 65 DNL. Accepting that, the FAA and Congress subsequently adopted 12.3% as the *annoyance threshold that should not be exceeded*, and 65 DNL subsequently became the standard.

The international scientific community, however, has recently found that the 1978 studies and Schultz dose/response curve were flawed, invalidating the 65 DNL threshold standard. On March 9, 2016, the International Organization for Standardization (ISO)—an independent, non-governmental organization of 162 national standards bodies, including the U.S.—published a revision of ISO standard on measurement and assessment of environmental noise. The revised ISO standard reflects 5 years of analysis by an ISO technical committee, which produced the new dose/response curve based on 21st century research. The American National Standards Institute (ANSI) version of the ISO standard followed and mirrored the ISO findings. Hence, there is ubiquitous concurrence of worldwide noise experts. Consequently, to be consistent with 12.3% annoyance standard, the correct high annoyance threshold level is actually 55 DNL. At 65

DNL approximately 25% are highly annoyed or double the allowable congressional standard.

It is entirely proper and to be expected that the Navy use "the best available science," but it cannot claim to honor and uphold science and concurrently rely on an undefendable, 40-year-old, scientifically discredited 65-dBA DNL.

(d) Wrong DNL Averaging Method.—Even though the 106 DOE should have used the 55 DNL, it is not really clear what use was intended for the 65 DNL. Presumably it was to provide insight on Reserve visitor experience and potential structural damage. Both those uses for the DNL are actually misuses. Exacerbating that misuse, even the DNL calculation method used was inappropriate and inconsistent with standard procedure.

There are two DNL types, one uses all 365 days as an average (called Average Annual Day or AAD) and the other is based on just the days of flying (Average Busy Day or ABD).

Which of those two well-established standards is used therefore depends on airport use. Airports used daily use AAD; those used intermittently should use ABD (busy days only). For example, if airport use is just 50 days per year, the DNL should be averaged over just those busy 50 days, not all 365 days. That is, to analyze noise annoyance, the evaluation must focus on the days when the noise is occurring. For example, to properly evaluate noise annoyance related to fireworks on the 4th of July, it makes no sense whatsoever to calculate the average DNL for the year by averaging the 4th in with other 364 other "quiet days." Those 364 days are not pertinent to understanding fireworks annoyance levels. It is the difference between the two that creates annoyance.

Because, the DNL relevant to evaluating jet noise annoyance can only be determined for days when the jets are flying, the use of the 365-day AAD averaging understates Growler FCLP noise annoyance and reduces the acreage within the 55 and 65 DNLs contours.

As explained by noise internationally prominent noise expert Sandy Fidell (Fidell Associates, Inc.)[5], "*DNL is, by definition, a 24 hour noise measure. Thus, DNL contours are intended to represent the aircraft noise exposure during a hypothetical, but "typical" or otherwise representative day.*"

So, the 106 DOE use of the 365-day AAD artificially lowered the DNLs. As Fidell explains, "*averaging the exposure created on one night per month over a year is a pretty big stretch: 10·log(12/365) is about a 15 dB underestimate of exposure on nights when FCLP operations are conducted.* Note that +15 dB equates to being about 1.5 times louder, or a misrepresentation of 150%,

Correct use of busy-day averaging is affirmed in a 2013 noise study conducted by Wyle (the Navy's exclusive noise expert) for the Avon Park Air Force Range Complex.[6] Because flight operations occurred, on average, 260 days of the year, Wyle appropriately used busy day (ABD) averaging: "*For noise modeling, total annual flight operations were converted to Average Busy Day (ABD) flight operations by dividing annual flight operations by the number of airfield operating* [busy] *days in a year…"*

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[5] President, Fidell Associates; positions held at Bolt Beranek and Newman and successor organizations: Director, Environmental Technologies Department; Manager, Environmental Research and Data Systems Department; Senior Manager; Lead Scientist; Senior Scientist; Manager, Los Angeles Computer Laboratory. [Note: BBN Technologies (originally Bolt, Beranek and Newman) is an American high-technology company that provides research and development services. Based in Cambridge, Massachusetts, it is a military contractor, primarily for DARPA, and also known for its 1978 acoustical analysis for the House Select Committee on the assassination of John F. Kennedy. BBN of the 1950s and 1960s has been referred to by two of its alumni as the "third university" of Cambridge, after MIT and Harvard. In 1966, the Franklin Institute awarded the firm the Frank P. Brown Medal.BBN became a wholly owned subsidiary of Raytheon in 2009. On February 1, 2013, BBN Technologies was awarded the National Medal of Technology and Innovation.] . Fidell's Honors, Societies, and Advisory positions include: Acoustical Society of America (Fellow); Associate Editor, Journal of the Acoustical Society of America; U.S. Representative to International Standards Organization Technical Advisory Group on Community Response Questionnaire Standardization (ISO/TC43/SC1/WG49), and to ISO Working Group 45 on Community Response to Noise; Acoustical Society of America Representative to I-INCE Technical Study of "Metrics for Environmental Noise Assessment and Control"; Acoustical Society of America, Technical Committee; National Research Council Committee on Hearing, Bioacoustics and Biomechanics; Current or past member of the American National Standards Institute, Committee on Bioacoustics, Working Groups on Environmental Noise Measurement and Assessment and Auditory Magnitudes, and Community Response to Noise Levels; American Helicopter Society, Committee on Acoustics; IEEE Power Engineering Society, Audible Sound and Vibration Subcommittee; Design Review Group for FAA's Integrated Noise Model software; BBN Outstanding Publications Awards in1989, 1991, 1996.

[6] Revised FINAL Noise Study for the Avon Park Air Force Range, Florida. 2013. Wyle Report WR 13-05.

And still another study, this one for NAS Whidbey Island,[7] provided this proper application of ABD averaging.

> Noise contours for Naval air facilities are based on either the Annual Average Day or the Average Busy Day. The Navy document that addresses noise and land use compatibility around Naval facilities, OPNAVINST 11010.36A, Air Installation Compatible Use Zones (AICUZ), states: Noise exposure contours will be developed using either the Annual Average Day, or Average Busy Day where analysis indicates that the Annual Average Day would not properly reflect the noise environment. For example, at air installations which are closed on weekends or where weekend operations are substantially less than weekday operations, the use of Average Busy Day is appropriate. Because public attitudes toward an intermittent noise environment are most probably related to the days with higher noise exposure, **noise contours for a "busy day" of flying activity would be expected to relate more closely to public attitudes than contours for average annual daily activity**. (emphasis added)

The 2005 AICUZ and related 2004 Wyle report for the NAS Whidbey Island likewise explain, "*For some military airbases, where operations are not necessarily consistent from day to day, a common practice* ***is to compute a 24-hour DNL or CNEL based on an average busy day, so that the calculated noise is not diluted by periods of low activity.***" (emphasis added)

Nevertheless, the 2016 NASWI draft EIS opted to use AAD with this rather strange explanation refuting its own 2005 AICUZ (pages 3-12 to 3-13); presumably this weak non-explanation applies to the 106 DOE use of AAD as well.

> The intent of this EIS is not to directly support the AICUZ program [which calls for ABD], but to use best available science as required under NEPA to develop an accurate analysis of potential noise impacts from the Proposed Action. Thus, while related, the AICUZ standard is not necessarily an appropriate NEPA standard. Using ABD would greatly overstate the nature of the noise impacts at OLF Coupeville, thus providing decision makers and the public with an inaccurate analysis.

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[7] Page 4-24 of the U.S. Navy's 1993 DEIS entitled "Management of Air Operations at Naval Air Station Whidbey Island." (Attributed to the Department of the Navy's Western Division Naval Facilities Engineering Command Engineering Field Activity Northwest for The Proposed Modification of Air Operations Management at Naval Air Station Whidbey).

Actually, just the opposite: The AAD method the Navy used is "*providing decision makers and the public with an [inaccurate] analysis*" because it "*greatly [understates] the nature f the noise impacts.*" The motive is fully apparent and inconsistent with NEPA, and it blatantly contradicts the assertion that the Navy uses only the best available science.

(e) Misuse of the Decibel A-Scale.—Growlers produce far more low-frequency noise (LFN) than their Prowler predecessor. The "Growler" name is a reflection of its LFN. The decibel A-scale (dBA), however, filters out LFN, and hence, use of dBA produces lower decibel readings for Growlers than would the C-scale (dBC). LFN also travels further than higher frequencies because its attenuation rate is less. Hence, it is measurable at greater distances than are higher frequencies. And, noise contours for Growlers based on the A-scale will include less land mass than if the C-scale were used.

In addition, LFN travels through walls, and other relative hard surfaces because its reflection rate is far less than higher frequencies. Hence, LFN produces more noise-induced vibration, and that is problematic not only for structures but also for humans and wildlife exposed to LFN. According to Mireille Oud, a medical physicist, "*There is no shielding against LFN. Since LFN propagation is mainly structure-borne, closing doors and windows is not effective. Earplugs are of no use, because LFN bypasses the eardrum*." [8]

So here again, a metric seems to have been selected that does not objectively inform, but rather has been selected to distort and hide the real effects and impacts of noise generated by the Growler aircraft.

2. Impacts of Growler FCLPs on the Reserve

[8] Mireille Oud, Low---frequency Noise: a biophysical phenomenon, Presented at Congress "Noise, Vibrations, Air Quality, Field &Building", 6 November 2012, Nieuwegein, The Netherlands.

The impacts of Growler FCLPs on Ebey's Landing National Historical Reserve fall primarily into two categories: (1) effects on historic structures, and (2) effects on visitor experience.

(a) Assessment of Growler FCLPs on Historic Structures.—The 106 DOE asserts that, "*The DNL metric is the current standard for assessing potential effects to historic properties because it factors the number, frequency, and energy (loudness) of noise events. The DNL metric is a cumulative measure and represents long-term noise exposure rather than a sound level heard at any given time, which makes it appropriate for assessing long-term direct and indirect auditory, visual, and atmospheric effects to historic properties* (page 25)." The Navy contradicts itself in making that assertion. As discussed below, the 106 DOE concludes that 130 dBC is the approximate threshold for vibrational noise damage. Hence, by selecting the A-scale DNL average as the metric to evaluate noise damage to buildings, there can be no damage because the DNL says nothing about how long or how often that 130 dB is approached or exceeded. That is, the DNL hides the damaging component of noise in the same way that the average New Orleans wind speed in 2005 provides no insight whatsoever about the damage caused by 150 mph winds of Hurricane Katrina.

Pressure is the damaging component of sound that can cause solid surfaces to vibrate. The greater the noise, especially LFN, the more intense the pressure and the greater the vibration. There are a number of other metrics that could be used that would quantify the amount of damaging noise exposure (e.g., sound equivalent level, maximum un-weighted Z-scale). So again, why has a misleading metric been used instead of an informative one?

Pages 59-61 of the 106 DOE, briefly discuss the only studies done on historical structures from jet (the supersonic Concord) noise, but there is no data or information to indicate what the dBC noise levels were at the buildings studied. Nor does the 106 DOE describe structural aspects of the historic buildings evaluated and how they may differ or be similar to the Reserve's structures. Absent that critical information, the two cited studies cannot be credibly related to the Reserve's structures and are of little value or pertinence.

The 106 DOE, however, goes on to reference a 2012 study at NAS Whidbey Island that *"suggested that sounds lasting more than 1 second above a sound level of 130 C-weighted decibels (dBC) are potentially damaging to structural components (Kester and Czech, 2012)," but that none of the conditions evaluated for the study caused C-weighted sound levels to exceed 130 dBC…[albeit] takeoff conditions had C-weighted sound levels greater than 110 dBC for both types of aircraft, creating an environment conducive to noise-induced vibration (Kester and Czech, 2012)."* This does not inform what the dBC levels were during takeoff but if they were *conducive to noise-induced vibration*, presumably they were at or near 130 dBC. Importantly, the type of Ault Field area structures examined in that 2012 study are not described to permit their comparison to historic structures on the Reserve. That is, were the structures contemporary to-code buildings or older historic ones? We also noted that the Kester and Czech 2012 is not included in the literature cited section, i.e., is it a peer-reviewed publication in the formal literature? Nevertheless, the 106 DOE does seem to waffle on the applicability question:

> Because of a wide range of variations in building code and aircraft types, the U.S. has yet to develop a precise threshold for adverse effects to the integrity of buildings and structures. Therefore, this study [the 106 DOE] applies the same standards used in the 2012 noise study for the assessment of noise and vibration from Navy airfield operations to historic properties within the APE.

So, presumably the 130 dBC for >1 second is the Navy's accepted standard.

In 2016, the National Park Service (NPS) conducted a 31-day noise monitoring study at two historic buildings in the Reserve: the Reuble Farmstead [approximately under Path 32] and the Ferry House [further away]. The highest recorded sound pressure level was 113 dBA during FCLP activity over the Reuble Farmstead (note, that was the A-scale, not the C-scale, which will always be greater).

The NPS study evaluated the A-scale that affects human reactions, and not C-scale, which manifests the potential for vibrational damage. The 106 DOE, however, concluded that "*it is unlikely that sound pressures would approach a peak unweighted sound level greater than or equal to 130 dBC, which is the level that would be considered potentially damaging to structures at those locations*."

It may well be that 130 dBC is a realistic threshold for structural damage, or it could be less for ancient structures, but we are willing to accept that 1 second at ≥130 dBC is perhaps a general threshold to induce noise damage.

However, we reiterate that noise levels have to be measured on site. So why has the Navy strenuously resisted and on-site evaluations of Growler noise in spite of the fact they know that several credible published studies have shown modeled noise to significantly underestimate on-site monitoring.

Because the Navy provided no on-site monitoring, COER hired noise expert, JGL Acoustics, to examine noise under OLF path 32 in June 3013 and again in February 2016[9]. Among other metrics, JGL recorded maximum un-weighted peak noise levels of 131 to 134 dB at five separate recording locations under the Path 32 flight path. Two of those stations were less than a mile from the Crocket Barn and the Reuble Farmstead.

NOTE: the maximum un-weighted noise levels JGL recorded equaled or exceeded Navy's 130 dBC threshold for noise damage.

As a result, the JGL findings, the only un-weighted peak levels recorded on site and on two separate occasions, strongly indicate a potential for vibrational damage to historic structures. The A-scale data for both the 2016 NPS sound study and the two JGL sets of recordings are quite similar, supporting the veracity of each.

So, whereas the 106 DOE concludes that it is "*unlikely that sound pressures [in the Reserve] would approach a* ***peak unweighted sound level*** *greater than or equal to 130 dBC,*" the information presented above shows that peak unweighted sound level is over 130 dB on nearly every fly-over. While the 106 DOE dismisses any likelihood of Growler damage to Reserve structures, the information here indicates the Navy's conclusion is not supported with reliable data. In contrast, mutually supportive on-site recordings (JGL and NPS) strongly indicate that structural damage is actually quite likely.

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9 http://citizensofebeysreserve.com/Files/Lilly%20Report%202016.pdf

(2) Effects on Visitors.—The 106 DOE use of the 65 dB DNL to assess impacts on Reserve visitors is not acceptable because it white-washes and converts extremely loud noise into some sort of constant hum, a 65 dBA white noise that is always there. Of course Growler noise is not an ever-present ambient noise. Rather it is an extremely loud noise superposed on a very quiet ambient noise. And it is that horrific noise, the sudden dramatic increase in noise over the quiet solitude of the ambient level that upsets and disturbs and denigrates visitor experience. The DNL is worthless to assess that because it suffocates the Growler noise with the ambient quietness noise.

In addition, even if the DNL had some utility to assess visitor experience, which it does not, as discussed in section 2 (d) the scientifically now valid DNL threshold is 55 dB, not 65 dB, regardless of whether the Navy uses it or chooses, instead, to play games with science. Knowing the Navy prides itself on applying the most current and accepted scientific information, the 65-dB contours need to be revised to 55 dB, which will greatly increase the land mass and understanding of noise harassment impacts within the new contours.

Instead of the negligible application potential for DNLs to assess Growler noise impacts on Reserve visitors, one valid metric is a measure of how often and how long in a given year will Growlers be in the air over or near to the Reserve. Under the Navy's recently proclaimed preferred option for the OLF there are to be about 24,000 operations annually over the Reserve. If there were 100 days of carrier landing practice (busy days), there would be about 3 sessions per busy day (assumes 297 practice sessions/year[10] divided by 100 busy days). That amounts to about 120 min or 2 hours of noise each fly day, most of that (95%) occurring between noon and 10:00 PM. If practice was confined to 60 busy days, there would be about 5 sessions per fly-day (297 sessions/year divided by 60 busy days) amounting about 200 min or 3.3 hours of noise each fly day.

COER does not agree that 60 to 100 days of a Reserve visitor experience significantly impacted by Growler noise harassment is trivial or discountable.

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[10] That is, 23,700 operations per year divided by 80 ops/session or 4 jets each conducting 20 operations (1 landing + 1 takeoff = 2 operations) or 10 circuits of the OLF.

That, however, is what the 106 DOE implied from its "DNL analysis," albeit the Navy has admitted elsewhere to generic impacts, yet provided no real solutions.

On page 54, the 106 DOE argues that Growlers overhead do not impact the visual or atmospheric aspects of the District: *"[The] temporary introduction of a visual and atmospheric elements in the sky does not indirectly alter the characteristics of the district that make it eligible for listing in the NRHP*." The reasoning seems to be attended to the fact that there are ships and vehicles within sight. COER disagrees with that reasoning. The atmospheric conditions may be affected; at least no information was presented to indicate there are no impacts, and to conclude *no impact* is cavalier without substantiation. Ships produce very little noise and are miles distant, and hence, easily unnoticed or out of view, and an occasional vehicle in view or heard is hardly likely to induce much attention. Growlers, however, screaming out 130 dB at 600 feet over a visitor's head every 45 seconds are sure to degrade and divert and command the visitor's "*visual elements*," severely interrupting and shifting visual attention and auditory escape from historic appreciation to a dramatic visual image of war.

Island County and Whidbey Island citizens have a long-term investment and commitment to the Reserve. The County's Comprehensive Plan has deemed the Reserve as a priority in the stated goals and policies. The intrusion of the Navy's Growler jet noise into the Reserve's soundscape has considerable impact on the County's ability to achieve the protection and pro-active preservation goals published in its Comprehensive Plan. The jet noise degrades and negatively impacts the rural character and the economically important heritage resources within our agricultural, recreation and tourism industries -- so important to the community and to the thousands of visitors who visit the Reserve annually.

3. Non-Validity of the OLF Historical Paradigm

The 106 DOE presents a lengthy historical operations explanation as well as charts depicting the FCLP activity at the OLF. The no-so-subtle suggestion is that the OLF history, which began as an emergency landing strip in WW II, gives it "*grandfather rights*" to continue to use the OLF as long as it sees fit and in a

manner to be construed as somehow consistent with history. The inference is that since there has been a lot of noise in the past, continuation of that noise is grandfathered, and the community and the Reserve and its visitors will just have to make do.

Even if that right was reasonable—which it is not—how could one reasonably quantify the allowable historic noise rights? Should it be an average of annual noise across time since the Town of Coupeville's incorporation? Or perhaps from day the OLF opened in 1943? Should it maybe be from the start of Prowler FCLPs or maybe from the 2015 full Growler transition? There simply is no intuitive and logical starting point. Nor are yesterday's problems and abuses reason to continue them today and into tomorrow.

In that regard, it is interesting that the 106 DOE's historical analysis made no mention of the citizen group that formed in the 1990s to curtail the Prowler FCLPs at the OLF. They reached a settlement of sorts; it did not last long unfortunately and is now almost forgotten. So, this is an old problem that has grown worse with time and a noisier jet creating multi-county distress even reaching into the Okanogan Valley. This is a massive encroachment of Navy noise over public and private properties.

The country is no longer uninformed or dismissive about detrimental noise. We understand the noise/health and safety risks: risks to fetuses of pregnant women, to school-age children's learning and hearing, and to a wide variety of health and life issues. And we know about the investment and economic drags, including how tourisms and park visitors react to noise. And we know how Growler noise drags and cripples the sanctity of our national-interest historic reserve, the first such in our country.

So, history is important, and it absolutely should transcend a misconceived and self-assigned military grandfather non-right. What is relevant is how to resolve the Growler FCLP impacts of today, not how we lived with Prowlers yesterday. We are no longer myopically conditioned to accept that the *Sound of Freedom* trumps thoughtful and penetrating analyses to realistically balance national security with needed and effective military training.

Addendum to section 2(a) of COER's comments on Section 106

We recently learned that the JGL sound study at position 1, included C-weighted decibel recordings and requested that information from JGL because it was not included in the 2013 and 2016 JGL reports. The C-weighted data was taken only at Position 1 in Admirals Cove, where noise measurements were similar to Positions 2 and 3, which are just north and south of the Reuble farmstead.

The JGL C- measurements attached show the peaks for the C-weighted recording are about 3 dB greater that the A-weighted. The peaks run consistently from about 115 to 120 dBC. This certainly is a red-flag level for vibration and potential damage.

As mentioned in COER's comments:

> "We also noted that the Kester and Czech 2012 is not included in the literature cited section, i.e., is it a peer-reviewed publication in the formal literature? Nevertheless, the 106 DOE does seem to waffle on the applicability question:
>
> > Because of a wide range of variations in building code and aircraft types, the U.S. has yet to develop a precise threshold for adverse effects to the integrity of buildings and structures. Therefore, this study [the 106 DOE] applies the same standards used in the 2012 noise study for the assessment of noise and vibration from Navy airfield operations to historic properties within the APE.
>
> So, presumably the 130 dBC for >1 second is the Navy's accepted standard."

Because the threshold for damage to historic structures is critical to assessing impacts on Reserve structures, COER requests a copy of the Kester and Czech 2012 study. Of specific interest are 1) the methods used in determining 130 dBC threshold, 2) whether the structures considered were contemporary to-code buildings or old historic structures, and 3) review to evaluate the overall scientific efficacy of the study. Because it was not included in the literature

cited, there is no way to tell if it was published in the formal scientific peer-reviewed literature or is just a report. Depending on our and JGL's assessment of Kester and Czech 2012, we may further request that structural experts review and comment on validity of this highly important putative threshold for damage.

CITIZENS OF EBEY'S RESERVE

protecting our land, homes, and health

September 3, 2018

Naval Air Station Whidbey Island

Attn: Captain Matthew Arny

3730 North Charles Porter Avenue

Oak Harbor, WA 98278-5000

RE: Section 106

Dear Captain Arny,

Thank you for taking leadership in our recent meetings regarding the Section 106 Growler Expansion. We understand your role in this and appreciate your new added clarity to the challenging conversations. We respectfully add these new comments to comments we have already sent to you.

For decades, the communities of NW Washington State have been a partner with the Military in protecting our national security. Now, our communities are collateral damage of the Growler Jet program because of the incredible noise, pollution, and economic impacts. The latest proposal by the Department of Defense dramatically increases the number of Growler jets and flights - putting us all at risk. Central Whidbey and Ebey's Landing National Historical Reserve should not have to be collateral damage for a Washington D.C.-based military plan that magnifies insufficient past planning.

Desecration of this nation's first Historic Reserve, a unique partnership that requires property owners to be stewards, is not an acceptable option as an end result of a flawed Section 106 process. This historical heritage must have maximum protections - not maximum impacts from Growler jet noise. Protecting this Reserve is a delicate balance between the community, the people, and the land. If these relationships are broken – the Reserve will be broken.

The determination of adverse effect document must provide a clear discussion of the most important types of resolution: avoiding and minimizing the effects of the undertaking. The best way to avoid and minimize the adverse effect, which is increased jet noise, is to reduce or eliminate jet noise exposure.

COER has written extensively about the methodology, technical failure and shortfalls of the noise analysis used to inform this Section 106 process including: **(a) "Substantive Change" not Defined; (b) Modeled DNL Contours without Verification; (c) The 65-dBA DNL is now Invalidated; (d) Wrong DNL Averaging Method was used; and (e) Misuse of the Decibel A-Scale.** The result is that the Navy has grossly under-estimated the area of effect in substantial ways that understate the magnitude of the effect of the noise on the Ebey's Landing National Historical Reserve and of the landmass being impacted. This is why noise monitoring throughout the Reserve must be a part of any future mitigation plan to be discussed. Actual noise testing on the ground should have been conducted to test all of the modeled numbers that informed the outcomes of this Section 106 process.

As the only citizens group participating in the consultation on the development of a memorandum of agreement to address adverse effects from the Navy's Growler expansion pursuant to the Section 106 Process of the National Historical Preservation Act. – we take our participation seriously. We continue to express our deep concern with The Navy's commitment to public process. The Navy's undertaking and Section 106 Determination of Effect will have significant impacts on the Ebey's Landing National Historical Reserve and the other Historic Districts in Central Whidbey. Additionally, the general public is totally unprepared and uninformed about the magnitude of these proposed impacts.

We understand it is late in the process, yet we continue to request a pubic forum that will include Consulting Partners, such as: the Ebey's Landing National Historical Reserve Board of Directors, the National Park Service staff, the Town of Coupeville, Commissioner Helen Price Johnson, the State Office of Historic Preservation, Citizens of Ebey's Reserve, and other sound and historical property experts and professionals. This forum should be organized for a date in September 2018 and the Navy should provide an appropriate meeting location and representatives to record pubic comments and concerns. The Navy should consider the public's comments and concerns, as the Section 106 process requires, in their final MOA.

At the advise of Dr. Allyson Brooks, we are including suggestions for operational avoidance and minimization mitigations. Since the Navy's Preferred Alternative puts most of the noise disproportionally over the most historically fragile part of the Island – and the only part of the Island that has been designated for preservation by the United States Congress, we view the best way to avoid and minimize noise effect is to reduce the jet noise by moving the noise to less fragile locations.

We suggest that operational avoidance and minimization will allow the Navy to accomplish its mission while not destroying the Ebey's Landing National Historical Reserve and the community that stewards it. We further believe this is in the best interest of the Navy, the Base and national security, as well as, the mission of the Ebey's Landing National Historical Reserve.

Operational Avoidance Mitigations

Avoid Harmful effects in the Area of Proposed Effect by reducing the number of Growlers and Growler operations at NASWI that are proposed to fly FCLP operations at the OLFC over Central Whidbey and the Ebey's Landing National Historical Reserve.

Pursuant to NEPA, Section 106, regulations, the Navy will consult with SHPO on new undertakings involving the management of air operations as identified in the EIS, and Pursuant to NEPA regulations, the Navy will notify the public of any changes in the management of air operations that have the potential to significantly affect the human environment.

Avoidance Actions

- No increase in the number of operations or the number of EA-18Growler jets and no new (36) jets.
- Minimize local FCLP training, concomitant safety risks and economic/environmental impacts over the Ebey's Landing National Historical Reserve
  - Maintain 6,120 operations annually at OLF Coupeville per the 2005 AICUZ study, with a 50/50 split between runways, obviating the need for further Accident Potential Zones on Whidbey and in accordance with the 2005 AICUZ planning.
  - No local FCLPs on Friday, Saturday or Sunday.
  - Because of carbon emissions over the Reserve's tourist destinations, no local FCLP's on days that are declared Clean Air Hazard Alerts for Island County.
  - Temporarily deploy remainder of FCLP operations at other Navy bases as is currently occurring.
  - Navy provides regular ground monitoring of altitude of aircraft in FCLP pattern to ensure that pilots observe the 600-foot minimum altitude.
  - Monthly publication of OLF Coupeville FCLP operations, runways and time of day.
  - Place sound monitors throughout the Reserve, in historic districts, and under all flight paths. Monitoring results should include only the days of flying (Average Busy Day or ABD) not 365 days per year.
  - Growlers produce more low-frequency noise (LFN) than their Prowler predecessor and monitoring equipment should be measuring the C-scale as well as the A-scale for noise effects data.
  - Report all monitoring results to the public and consulting partners at an annual public forum, not an open house.
  - Install NOISE warning signs around OLFC and close any locations that may be accessible to the public to view Growler FCLPs, as the public may be injured or permanently impaired by the noise.

Reduce noise effects, duration, and intensity.

- Site Growlers at 1 or 2 additional locations nationally, starting with carrier-based squadrons, which require the most FCLP training.

- Move 5 carrier-based Growler squadrons (35 aircraft) to other location(s); perhaps MCAS Cherry Point, which retains training infrastructure. 83 Growler aircraft remain at NASWI.
- Move remaining 4 carrier-based Growler squadrons (28 aircraft) to 1 or 2 other locations. 55 Growler aircraft remain at NASWI.

Re-site Growler Mission

Growler mission moves to more appropriate sites that are larger, meet Navy standards, and are not as densely populated and environmentally fragile.

Move the training command (25 aircraft) to 1 or 2 other locations. 5 Growler aircraft (reserve squadron) and expeditionary squadrons remain at NASWI.

Return Ebey's Landing National Historical Reserve to historic agricultural heritage pre-dating anything but fixed wing aircraft that would have been appropriate in 1945.

Mitigations under NEPA should include operations management including timing, placement and management during the course of each year.

Sincerely,

Maryon Attwood, COER, President

cc: Captain Arny, NASWI – matthew.arny@navy.mil

Helen Price Johnson, Island County Commissioner – district1@co.island.wa.us

Jay Inslee, Governor for the State of Washington - Baumgart, Jim (GOV), jim.baumgart@gov.wa.gov