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June 11, 2013

Admiral Bill Gortney
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Commander Mike Nortier
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Rear Admiral Markham K. Rich
Commander, Navy Region NW
1100 Hunley Road
Silverdale, WA 98315

Re: *NAS Whidbey Island, Central Whidbey Outlying Field (OLF-Coupeville)*

Dear Admiral Gortney, Commander Nortier and Rear Admiral Rich:

I write on behalf of Citizens of the Ebey's Reserve for a Healthy, Safe & Peaceful Environment (hereinafter "CER"). The purpose of this letter is to demand, pursuant to 32 C.F.R. § 775.6(c), the Navy take immediate steps to prepare a new environmental analysis of the ongoing activity of conducting operations with the EA-18G aircraft at NAS Whidbey Island, Whidbey Outlying Field (OLF-Coupeville). Please review the following. We request a written response no later than July 12, 2013.

**A. Legal Framework**

The CEQ NEPA regulations define major federal actions subject to evaluation under NEPA to include, among other things, "new and continuing activities." 40 C.F.R. § 1508.18(a). The Navy has adopted regulations interpreting "continuing activities." These regulations provide that:

> "The term *continuing activities* which may necessitate the preparation of a NEPA document will be applied by the Department of the Navy to include activities which are presently being carried out in fulfillment of the Navy mission and function, including existing training functions, where:
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> ***
>
> (2) There is a discovery that the environmental effects of an ongoing activity are significantly and qualitatively different or more severe than predicted in a NEPA document prepared in connection with the commencement of the activity."

> "A substantial change in a continuing activity (such as a substantial change in operational tempo, area of use or in methodology/equipment) which has the potential for significant environmental impacts should be considered a proposal for a new action and be documented accordingly. "

32 C.F.R. § 775.69(c). Thus, according to the Navy's own NEPA regulations for continuing activities a new NEPA review must be conducted if *either* the environmental effects of the ongoing activity are significantly different or more severe than predicted, *or* if there is a substantial change in the continuing activity with a potential for significant environmental impacts.

This regulation clearly applies to the Navy's ongoing activity conducting operations with the EA-18G at OLF-Coupeville. In January 2005 the Navy published the Final Environmental Assessment for Replacement of EA-6B Aircraft with EA-18G Aircraft at Naval Air Station Whidbey Island, Washington ("2005 EA"). Based on the analysis in the 2005 EA, including an assumed reduction in the number of flight operations at OLF-Coupeville, the Navy issued a "Finding of No Significant Impact." But as discussed below, the predicted number of flight operations and nighttime flight operations used in the 2005 EA were wrong. The Navy is currently conducting significantly more flight operations and a significantly higher proportion of night-time operations at OLF-Coupeville than analyzed in 2005 EA. The result of this substantial change in activity is a significantly and qualitatively more severe noise impact than predicted in the 2005 EA.

### B. The Navy is Conducting Significantly More Operations at OLF Coupeville than Previously Analyzed

The 2005 EA analyzed the environmental impact of noise on the surrounding residential community related to the replacement of the EA-6B Aircraft with the EA-18G.[1] The analysis predicted that there would be a *reduction* in noise impacts with the introduction of the EA-18G. This prediction was based in large part on the assumption that there would be a reduction in the number of flight operations at OLF-Coupeville. According to the 2005 EA, there were 7,682 annual flight operations[2] conducted at OLF Coupeville in 2003.[3] The 2005 EA assumed that this number would significantly drop and by 2013 the number of annual flight operations at OLF-Coupeville would decrease by 20% to 6,120 flight operations.[4]

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[1] An excerpt on the Noise analysis from the 2005 EA is attached as Exhibit 1.
[2] The 2005 EA and supporting noise analysis count each pass at OLF-Coupeville as two "operations" or "events." Thus, a single aircraft conducting a Field Carrier Landing Practice "FLCP" with and approach and subsequent takeoff , is counted as two operations. For the purposes of this letter, we adopt the 2005 EA counting methodology.
[3] 2005 EA, p. 39. *See also* 2005 EA, Appendix A at Table A.1 (attached as Exhibit 2). It should be noted that the during the three year period between 2000-2002 the navy averaged 4682 operations. Thus, 2003 itself was an anomaly year for comparison.
[4] 2005 EA, p. 42. *See also*, 2005 EA, Appendix A at Table A.2.

Contrary to the assumption in the 2005 EA that the number of flight operations would decrease, the number has actually significantly increased.[5] According to information released by the Navy through FOIA, the number of annual flight operations as OLF-Coupeville over the last 5 years is as follows:

| | |
|---|---|
| 2008 | 2,548 |
| 2009 | 5,292 |
| 2010 | 6,476 |
| 2011 | 9,378 |
| 2012 | 9,668[6] |
| 2013 | ~ 5,688 through May 31[7] |

As these numbers demonstrate, since 2008 flight operations at OLF-Coupeville have increased 368%. Significantly, the 2012 numbers are now 158% of what was predicted in the 2005 EA for 2013. This clearly demonstrates a "substantial change" in ongoing activities. The assumption in the 2005 EA that there would be a decrease in flight operations was wrong. The opposite has happened. Because the decreased number of anticipated flight operations was a significant factor in finding that there would be no significant noise impact on the surrounding community with the introduction of the EA-18G this "substantial change in operational tempo" certainly has the "potential for significant environmental impacts" and must be treated as a new action with a new NEPA analysis. 32 C.F.R. § 775.69(c).

### C. The Navy is Conducting Significantly More Nighttime Operations at OLF Coupeville than Previously Analyzed.

The noise analysis in the 2005 EA was prepared based on the Day-Night Average Sound Level ("DNL") sound level metric. The DNL metric averages all noise events for a 24 hour period and applies a 10-dB penalty for nighttime events after 10:00 p.m. and before 7 a.m. According to the 2005 EA the 10 dB penalty "accounts for the added intrusiveness of sounds during sleeping hours, both because of the increased sensitivity to noise during those hours and because ambient sound levels during nighttime are typically about 10 dB lower than during daytime hours."[8] Thus, a higher percentage of nighttime operations results in a higher DNL sound measurement.

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[5] *See* Exhibit 3.
[6] 9,668 in operations in 2012 is based on the Navy's most recent information. Previously information also released by the Navy indicates that the number FCLPs at OLF-Coupeville in 2012 as high as 13,383. *See* Exhibit 4.
[7] Navy data for 2013 shows 894 bounces, or 1788 flight operations between January 1 and March 22. Records kept by members of CER document approximately 450 additional bounces or 900 flight operations between March 22 and March 31. For April and May, CER records show an additional 1500 bounces or 3000 flight operations. Thus, in all, there have been approximately 5,688 flight operations between January 1 and May 31. This is significantly more than this same time period in 2012.
[8] 2005 EA at 36.

In 2003 there were 1292 nighttime operations and 6390 daytime operations at OLF-Coupeville. Nighttime operations accounted for only 17% of the total flight operations. The 2005 EA applied assumed that this same ratio of nighttime to daytime operations would continue. The EA thus assumed that in 2013 there would be 1029 nighttime operations and 5091 daytime operations.[9] But again, actual 2012 data presents a very different scenario. In 2012 there were approximately 6184 nighttime flight operations and 3482 daytime flight operations at OLF-Coupeville.[10] This represents a 479% *increase* in nighttime operations over the levels in 2003 and a 600% *increase* over what the 2005 EA predicted for 2013. Nighttime operations in 2012 accounted for 64% of all operations at OLF-Coupeville – significantly more than the 17% relied on in the 2005 EA. Nighttime operations in 2012 therefore accounted for 64% of the flight operations at OLF-Coupeville. Conditions are even worse in the summer months. For example, in June 2012 nighttime operations made up 71% of operations at OLF-Coupeville. And in July 2012 nighttime operations accounted for 84% of operations (935 out of 1116 total).[11]

This drastic shift in nighttime operations also constitutes a "substantial change in a continuing activity" that carries at least the "potential" for significant environmental impacts. 32 C.F.R. § 775.69(c). Because the 2005 EA assumed a significantly smaller percentage of nighttime operations, it failed to accurately apply the 10 dB penalty and therefore significantly underestimated the impact to the surrounding community. As shown in the attached report "Whidbey Island Military Jet Noise Measurements (JGL Acoustics, June 10, 2013),[12] at p. 5, Table 4, based on the actual number of nighttime to daytime operations, the predicted DNL at adjacent residential receives is more than 5 dB above levels predicted in the 2005 EA. For the purposes of NEPA, EPA Region 10 considers an increase in noise levels above 5 dB to be a "significant" impact.[13] The Navy's shift in operations must be "considered a proposal for a new action and be documented accordingly." 32 C.F.R. § 775.69(c).

### D. The Mitigation Described in the 2005 EA Has Not Been Carried Through

The 2005 AICUZ Study Update prepared in support of the 2005 EA concluded that the EA-18 Growler is 7 SELs louder on arrival and 3 SELs on departure than the replaced EA-6B Prowler. Mitigation for this increase was supposed to be a reduced number of flight operations. If the Navy did no more than the projected 6,120 operations at OLF-Coupeville (20% fewer than 2003 at 7,682), that would have compensated for the increased loudness of the EA-18G. However, with clearly more operations than planned, the compensation benefit never materialized, the actual manifestation being louder jets and far more operations. It should also be noted that the approach on path 32 (by far the most used path) is directly over the most populated area

[9] 2005 EA, Appendix A
[10] This is based on data received through FOIA (attached as Exhibit 5). The data only counts the number of "touches" or "wave off's" and does not include aircraft arrivals.
[11] Exhibit 5.
[12] Exhibit 6.
[13] Exhibit 7.

(Admirals Cove) adjacent to the OLF, so the 7-SEL increase is most acutely realized where the population is greatest. And though the EA-18G produces lower SELs on the downwind leg, that is only because they pass by faster. So if they are many more overflights, there too the DNLs are going to be higher than projected. Consequently, the projected DNL contours around the OLF in practice are much more extensive than indicated in the 2005 AICUZ.

### E. The Actual Noise Impacts Are Significantly and Qualitatively Different and More Severe than Predicted in the 2005 EA

By relying solely on the DNL metric, the 2005 EA also significantly underestimated the significant noise impact on the community surrounding OLF-Coupeville. By averaging over an entire year and including non-operational days the DNL metric results in diluted noise predictions. Indeed, the 2005 EA estimated noise levels over 75 dB in only a small area immediately around OLF-Coupeville.[14] Actual noise measurements conducted in May 2013 demonstrate significantly higher and more severe noise impacts.[15] For example, in a densely populated residential area approximately 1 mile south of OLF- Coupeville, maximum A-weight noise levels reached 119.2 dBA with the unweighted peak level at 134.2 dB. During one 40 minute session there were 35 jet flyovers which produced an average sound exposure level ("SEL") of 113.1 dBA.[16]

Clearly, the actual 2012 noise levels are much higher than predicted in the 2005 AICUZ Study, partly because of the greater number of over-flights, but primarily because of the much higher percentage of nighttime flights. The maximum sound levels are well above the levels requiring hearing protection and are high enough to potentially result in permanent hearing loss. These two facts alone lead to the conclusions that the 2005 EA must be revised and updated to more accurately reflect the potential noise impacts on the people living in the area.[17]

The information and data collected in these noise measurements demonstrates that actual noise impacts are significantly and qualitatively different and more severe than predicted in the 2005 EA. Consequently, because the operations at OLF-Coupeville are a "continuing" activity, preparation of a new NEPA analysis is required. 32 C.F.R. § 775.69(c).

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[14] The calculated day-night sound levels are well above recommended levels for residential areas. For example, in the 1980's the Port of Seattle purchased virtually all homes near Sea-Tac airport that were located inside the 75 Ldn contour, recognizing that aircraft noise above these levels are harmful to humans. The Port and the FAA is also funding multi-family residential building sound reduction projects for homes located inside the 65 Ldn contour. *See* Exhibit. 6, p. 6.

[15] *See* Exhibit 6.

[16] The Sound Exposure Level (SEL) represents the total acoustic energy in a noise event and depends not only on the level of the noise but also the duration of the noise. Community reaction is more likely to follow the SEL or Lmax than DNL.

[17] *See* Exhibit 6, pp 5-6.

Citizens of the Ebey's Reserve for a Healthy, Safe & Peaceful Environment therefore requests the Navy take immediate steps to prepare a new environmental analysis of the ongoing activity of operating EA-18G aircraft at OLF-Coupeville. We request a written response no later than July 12, 2013.

Please do not hesitate to contact me if you have any questions.

Very truly yours,

GENDLER & MANN, LLP

David S. Mann

Enclosures

cc: Senator Patty Murray
Senator Maria Cantwell
Congressman Rick Larsen

# EXHIBIT 1

**Final**

# Environmental Assessment for Replacement of EA-6B Aircraft with EA-18G Aircraft at Naval Air Station Whidbey Island, Washington

**January 2005**

**U.S. Department of the Navy**




# 3 Affected Environment and Environmental Consequences

## 3.1 Physical Factors

### 3.1.1 Noise

Noise is generally described as unwanted sound. A sound is regarded as noise when it interferes with normal activities such as sleep or conversation, or when it is subjectively judged to be annoying. Noise analysis thus requires a combination of the physical description of sound produced by an activity and an identification of the potential responses to it.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium such as air. The measurement and human perception of sound involves three basic physical characteristics: amplitude, frequency, and duration. Amplitude is a measure of the strength of the sound and is directly measured in terms of the pressure of the sound wave. The greater the sound pressure, the more energy carried by the sound and, generally, the louder the perception of that sound. The second important physical characteristic of sound is frequency, which is the number of times per second the air vibrates. Frequency is sensed as pitch; low-frequency sounds are characterized as rumbles or roars, while high-frequency sounds are typified by sirens or screeches. The third important characteristic of sound is duration, the length of time the sound can be detected.

The loudest sounds that the human ear can hear have acoustic energy a trillion times that of sounds that can barely be detected. Because of this vast range, using a linear scale to represent the intensity of sound becomes very unwieldy. Sound is therefore usually represented on a logarithmic scale with a unit called the decibel (dB). Such a representation is called a sound level. A sound level of slightly above 0 dB is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions. Normal speech has a sound level of approximately 60 dB; sound levels above 120 dB begin to be felt inside the human ear as discomfort (Berglund and Lindvall 1995).

The minimum change in sound level that the average human ear can detect is about 3 dB. On average, a person perceives a change in sound level of about 10 dB as a doubling (or halving) of the sound's loudness, and this relation holds true for loud and quiet sounds. A decrease in sound level of 10 dB actually represents a 90% decrease in sound intensity but only a 50% decrease in

perceived loudness because of the nonlinear response of the human ear (similar to most human senses) (Wyle Laboratories, Inc. 2004a).

In terms of frequency, sound levels are adjusted to the "A-weighted" frequency scale (dBA), which reflects the human ear's sensitivity to different frequencies of sound. A-weighting is assumed for all sound level descriptors in this document.

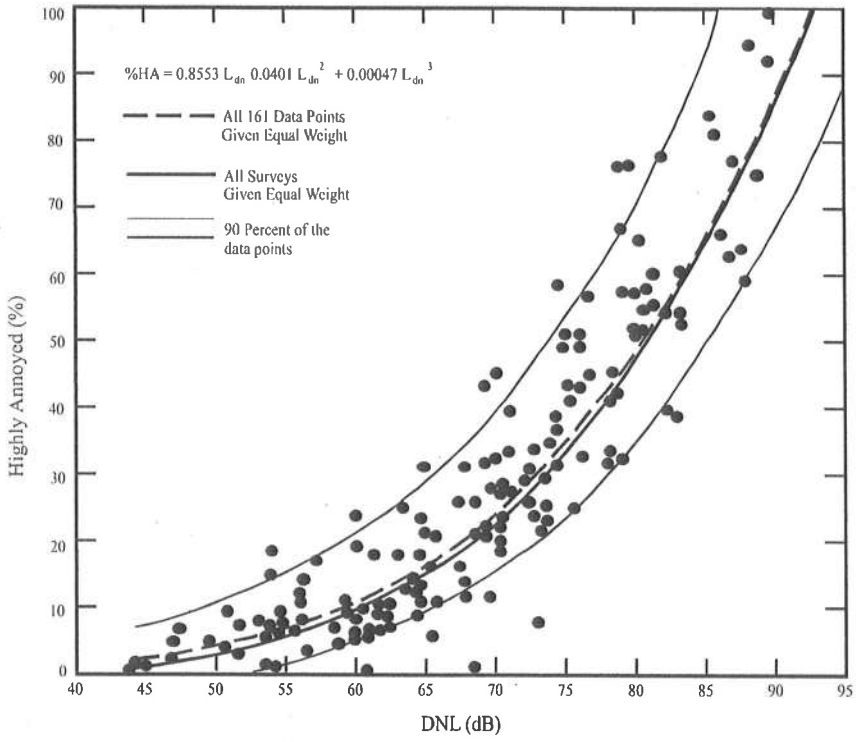
Aircraft noise consists of two major types of sound events: aircraft takeoffs and landings, and engine maintenance operations, or run-ups. The former can be described as intermittent sounds and the latter as continuous. Noise levels from flight operations exceeding ambient background sound levels typically occur beneath main approach and departure corridors, or local air traffic patterns around the airfield, and in areas immediately adjacent to parking ramps and aircraft staging areas. As aircraft in flight gain altitude, their noise contribution drops to lower levels, often becoming indistinguishable from the background noise.

Noise potentially becomes an issue when its intensity exceeds the ambient or background sound pressures. Ambient background noise in metropolitan, urbanized areas typically varies from 60 to 70 dB and can be as high as 80 dB or greater; quiet suburban neighborhoods experience ambient noise levels of approximately 45 to 50 dB (USEPA 1978).

Since flight operations dominate at an airfield, the resulting noise is highly variable. This variability is best assessed by time-average sound level metrics such as the Day-Night Average Sound Level (DNL). DNL is a composite metric that averages all noise events for a 24-hour period, with a 10-dB penalty applied to nighttime events after 10 P.M. and before 7 A.M. It is an average quantity, mathematically representing the continuous A-weighted sound level that would be present if all of the variations in sound level that occur over a 24-hour period were smoothed out so as to contain the same total sound energy. It is a composite metric accounting for the maximum noise levels, the duration of the events (sorties or operations), and the number of events that occur over a 24-hour period. DNL does not represent the sound level heard at any particular time, but quantifies the total sound energy received.

The 10-dB penalty in DNL is added to those noise events that take place between 10:00 P.M. and 7:00 A.M. the following morning. This 10-decibel penalty accounts for the added intrusiveness of sounds during normal sleeping hours, both because of the increased sensitivity to noise during those hours and because ambient sound levels during nighttime are typically about 10 dB lower than during daytime hours.

Although DNL does not provide specific information on the individual sound events that occur during the day, it does account for both the noise levels of all those individual events and the number of times those events occur. Daily average sound levels are typically used for the evaluation of community noise effects, and particularly aircraft noise effects. In general, scientific studies and social surveys have found a high correlation between the percentages of groups of people highly annoyed and the level of average noise exposure measured in DNL (USEPA 1978; Schultz 1978; Fidell et al., 1991). This correlation, based on the Schultz study, is illustrated in Figure 3-1. It represents the results of a large number of social surveys relating community responses to various types of noises, measured in day-night average sound level (Schultz 1978).

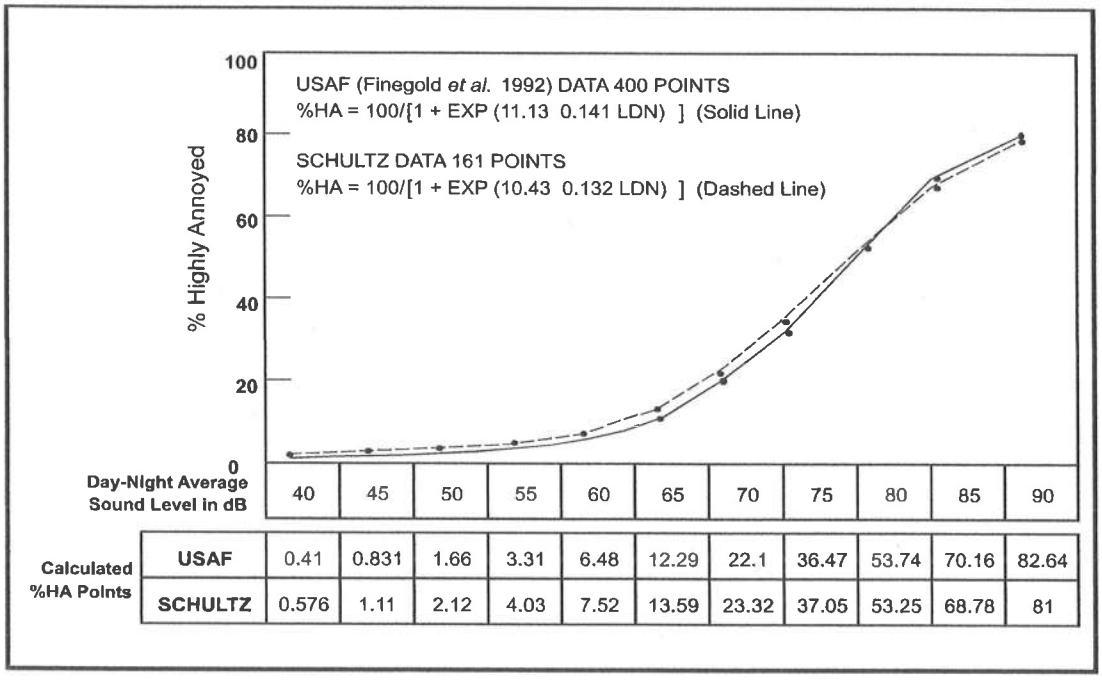



**(Source: Schultz 1978)**

**Figure 3-1 Community Surveys of Noise Annoyance**

A more recent study has reaffirmed this relationship (Fidell et al., 1991). Figure 3-2 (FICON 1992) shows an updated form of the curve fit (Finegold, et al., 1994) in comparison with the original. The updated fit, which does not differ substantially from the original, is the current preferred form. In general, correlation coefficients of 0.85 to 0.95 are found between the

percentages of groups of people highly annoyed and the level of average noise exposure. The correlation coefficients for the annoyance of individuals are relatively low, however, on the order of 0.5 or less. This is not surprising, considering the varying personal factors that influence the manner in which individuals react to noise. However, for the evaluation of community noise impacts, the scientific community has endorsed the use of DNL (ANSI 1980; ANSI 1988; USEPA 1972; FICUN 1980; FICON 1992).




| Day-Night Average Sound Level in dB | | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Calculated %HA Points | USAF | 0.41 | 0.831 | 1.66 | 3.31 | 6.48 | 12.29 | 22.1 | 36.47 | 53.74 | 70.16 | 82.64 |
| | SCHULTZ | 0.576 | 1.11 | 2.12 | 4.03 | 7.52 | 13.59 | 23.32 | 37.05 | 53.25 | 68.78 | 81 |

**Figure 3-2 Response of Communities to Noise; Comparison of Original (Schultz 1978) and Current (Finegold et al. 1994) Curve Fits**

The definition of daytime and nighttime periods gives DNL a basic 24-hour definition. It can, however, be applied over periods of multiple days. For application to airbases, DNL is applied as an annual average for the daily operations. In this document, DNL analyses are based on average annual operations for CY 2003 and CY 2013. They are not based on any specific 24-hour day during these calendar years. When the noise exposure of these operations is modeled, the DNL for the community is depicted as a series of contours that connect points of equal value.

### 3.1.1.1 Affected Environment

Aircraft operations, including flight operations and ground engine-maintenance run-ups, are the primary source of noise at NAS Whidbey Island. These operations are conducted by aircraft stationed at NAS Whidbey Island, including the EA-6B, P-3C/EP-3, C-9, and C-12 aircraft, as well as transient aircraft. During CY 2003, 81,959 annual airfield flight operations were conducted at Ault Field, and 7,682 annual flight operations were conducted at OLF Coupeville. Of all flight operations conducted at Ault Field, approximately 90% operate during the "acoustical" daytime hours (i.e., 7:00 A.M. to 10:00 P.M.), and about 10% operate during "acoustical" nighttime hours (i.e., 10:00 P.M. to 7:00 A.M.) (Wyle Laboratories, Inc. 2004a). Of all flight operations conducted at OLF Coupeville, approximately 83% operate during the "acoustical" daytime hours, and about 17% operate during "acoustical" nighttime hours (Wyle Laboratories, Inc. 2004a). The distribution of aircraft flight operations (arrivals, departures, and pattern operations) and ground engine-maintenance run-ups by aircraft type in CY 2003 is shown in Appendix A. All ground engine-maintenance run-ups occur during the normal working hours of the day.

The noise contours (65-, 70-, and 75-dB DNL) for annual operations conducted in CY 2003 are shown on Figure 3-3 for Ault Field and OLF Coupeville. Table 3-1 shows the population, number of housing units, and acres of land around Ault Field exposed to noise greater than 65 dB DNL, and Table 3-2 shows the population, number of housing units, and acres of land around OLF Coupeville exposed to noise greater than 65 dB DNL. As shown on Figure 3-3, three schools are located within the greater than 65-dB DNL noise zone around Ault Field, of which one school is located within the greater than 75-dB DNL noise zone around Ault Field. No schools or religious institutions are located within the greater than 65-dB DNL noise zone around OLF Coupeville. In addition, portions of Deception Pass State Park, north of Ault Field, are located within the 65- to 70-dB, 70- to 75-dB, and greater than 75-dB DNL noise zones around Ault Field. Portions of Ebey's Landing National Historic Reserve are located within the 65- to 70-dB, 70- to 75-dB, and greater than 75-dB DNL noise zones around OLF Coupeville. Other potential sensitive land uses around Ault Field and OLF Coupeville are discussed in Section 3.3.3.