

QUIET SKIES

Over San Juan County



October 23, 2014

Dear Councilmen Stephens, Jarmen and Hughes,

Quiet Skies has new information (to us) which may be used in the County 's expanded EIS Scoping comments and in your continuing communication with the Navy and our legislators.

The information offers reasons why:

San Juan County is not "on the map" of areas impacted by noise.

Low Frequency noise generated by the Growlers may be a major cause of the annoyance and distress experienced by residents in San Juan County.

The sound metrics used by the Navy filter out the low frequency spectrum and consider only the noise on the A-weighted scale.

The Navy's 2013 Scoping Brochure states that the Growler "is recognizable by the low-frequency rumble of its jet engines." (**Reference #1.**)

The Wyle Report was used by the Navy in its 2012 Environmental Assessment and explains that "the metrics used to describe aircraft noise in this study are presented in terms of A-weighted decibels (dBA), **which de-emphasizes low-frequency noise.**" (**Reference #2.**)

The primary purpose of this study was to present the results of the noise analysis for the proposed transitions of three expeditionary EA-6B Prowler squadrons to EA-18G Growler aircraft and addition of one reserve EA-18G squadron at Naval Air Station (NAS) Whidbey Island, Washington

A low frequency noise report to *Federal Interagency Committee on Aviation Noise* of which the US Department of Defense is a member, states: "A-weighting function is not designed to evaluate noise that contains significant low-frequency content. " (PARTNER Report, Reference #3.)

A review of published research on "**Low Frequency Noise and its Effects**" supports San Juan County's experience that Low frequency noise causes extreme distress to a number of people who are sensitive to its effects. (Leventhall, 2003, Reference #4)

LEVENTHALL'S FINDINGS INCLUDE:

1. "Since A-weighting underestimates the sound pressure level of noise with low frequency components, a better assessment of health effects would be to use C-weighting."
2. "It should be noted that a large proportion of low frequency components in a noise may increase considerably the adverse effects on health."
3. "The evidence on low frequency noise is sufficiently strong to warrant immediate concern."
(Reference#4)

❑ The Wyle Report states that A-weighted metrics are designed to "approximate the response and sensitivity of the human ear." The PARTNER Report makes clear that while A-weighting may be a good measure of loudness, C-weighted metrics are a better measure of low frequency effects, including vibration.

Humans are rattled by the sound of Growlers in the same way glass windows are. Vibration and "rattling" are low frequency sound effects. The organ most sensitive to vibration is not the human ear, it is the body.

Metrics that de-emphasize low-frequency noise are bound to de-emphasize (or make altogether invisible) any health impacts not directly related to extremely high decibel levels and potential hearing loss.

❑ A-weighted data is pertinent to the situation at OLF where extreme loudness is an undeniable factor, but for those of us living in San Juan County, impacts from high decibel levels of over flights are only part of the picture. Impacts that result from the sustained hours of low frequency *plus* high frequency noise generated in FCLP's, 's ,CCA's and Run ups emitted by the EA 18-G Growlers, have definite physiological effects.

❑ **The Navy's exclusive use of A-weighted dB noise metrics in the 2012 EA** so narrowed the scope of its study as to make it completely inadequate to address human health impacts from operation of the EA-18G Growler. **The Navy failed to use "best available science" in the determination of Environmental Impacts from the Growler.**

❑ QUESTIONS:

Why was the low frequency noise not studied and it's contours mapped?

Why were on the ground noise measurements in San Juan County omitted?

Why does the Navy insist on using metrics which average noise (DNL)?

Our body – exposed to the unrelenting noise - does not average. It reacts in real time with adrenalin, with stress, with diminished mental functions and much more.

❑ If the Navy fails once again to incorporate noise metrics that are appropriate (C-weighted measurements) for the analysis of the low-frequency sound signature of this aircraft we can assume that the results of the current EIS will again be skewed in the direction of a finding of "no significant impact."

Thank you for your continued support in this difficult issue. The information contained in this letter is a collaboration of the members of the Quiet Skies over San Juan County. We hope it is useful to you as we move into the new scoping process..

Warm regards,
Cynthia Dilling , Member, Quiet Skies

REFERENCES:

1. Navy's 2013 Scoping Brochure, pg. 10
2. Wyle Noise Report, Appendix C; section 2.2.1, pg. 4, Navy 2012 Environmental Assessment. The 2012 Final EA is available to download or view online at www.whidbeyeis.com/HistoricDocuments.aspx
3. PARTNER Low-Frequency Noise Study, 2007. Section 3.1, pp. 10 and 16. The link is: <http://web.mit.edu/aeroastro/partner/reports/proj1/lfnreport-2007-001.pdf>
4. http://westminsterresearch.wmin.ac.uk/4141/1/Benton_2003.pdf