



Greg Wahl, Project Lead  
USDA-Forest Service  
Olympic National Forest  
1835 Black Lake Blvd SW  
Olympia, WA 98512

28 October 2014

RE: Pacific Northwest Electronic Warfare Range Special-Use Permit Application, Finding of No Significant Impact, and the Navy's Pacific Northwest Electronic Warfare Range Final Environmental Assessment, September 2014.

Dear Mr. Wahl:

On behalf of the Sierra Club North Olympic Group and our hundreds of members and activists, and supporters here on the Olympic Peninsula we are writing to submit comments on the US Forest Service's (USFS) concurrence with the Navy's finding of "No Significant Impact" (FONSI) and your potential issuance of a special use permit and the Navy's final Environmental Assessment (EA) for their proposed Pacific Northwest Electronic Warfare Range, September 2014.

As you are aware, the USFS's mission, as set forth by law, is to manage its lands under a sustainable multiple-use management concept to meet the diverse needs of people. Among these diverse needs are forestry, recreation, and the protection of wildlife habitat and wilderness. The very nature of the Navy's proposal, which involves open-ended access restrictions, makes it difficult to imagine how the USFS will be able to adhere to its multiple-use mandate as other uses will necessarily be precluded. The proposal also entails a very significant increase in the amount of fighter aircraft overflights on the Peninsula which will diminish the wilderness qualities of the adjoining Olympic National Park wilderness and adversely impact the economic revenue and benefits local communities derive from their proximity to these areas.<sup>1</sup>

Sierra Club North Olympic Group (NOG) believes that the Forest Service should not accept the finding of "No Significant Impact" and decline the Navy a Special-Use Permit and access

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<sup>1</sup> Headwaters Economics, an independent non-partisan research firm, estimated that fully 24% of per capita income in Jefferson County is attributable to the proximity of protected public lands. The proximity and quality of these lands influences business and individual relocation decisions and supports a robust service sector catering to tourists and residents alike.

to the Forest Service roads for their mobile electromagnetic (EM) emitters until the Navy revises and augments the final EA, requests an updated Biological Opinion from the US Fish and Wildlife Service, and (potentially) prepares a full Environmental Impact Statement (EIS).

The FONSI is not supported by the final EA from the Navy due to the inadequacies of that document. Without the FONSI or a complete EIS, the Forest Service cannot grant the Navy a special-use permit and access to Forest Service roads.

Specific Concerns Related to the Inadequacy of the Final EA (somewhat in order of importance)

**Sections 3.2 and 3.3** needs to be updated and re-written to include the newest scientific literature research on the effects of EM and Noise on Endangered Species Act (ESA) listed species in the proposed military operations area (MOA) areas. NOG focused research into the literature found no less than 3 peer-reviewed articles that would contradict the findings of no significant impact in the EA and perhaps the 2010 Biological Opinion.<sup>2</sup>

**Section 3.0.1;** from all the Navy descriptions about electronic warfare training, the public can only assume that if this type of training is approved in our forests that it will be conducted for many years to come (although an overall duration of years to decades has not be provided by the Navy). Based on this fact alone, the elimination of “land use” as a resource to evaluate in this EA is faulty. If the use of multiple mobile EM emitters for 260 days per year for 8 to 16 hours per day were to commence and go on for years if not decades, the “the proposed action ‘would change’ the manner of use or quality of land”. Humans and animals would simply avoid areas/locations of the mobile emitters and give up access to the areas that are currently accessible. This alone changes the use and quality of land. Therefore it is incumbent for the Navy to include and fully evaluate this resource of land use.

**Section 3.1.1.5, page 3.1-5;** these bullets state that “one crew member . . . will observe . . . for the presence of individual or animals.” Then this section provides an elaborate

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<sup>2</sup> *Engels, S. et al., Anthropogenic EM Noise Disrupts Magnetic Compass Orientation in Migratory Birds, Nature 509, 353-356 (2014);* scientists found that migrating robins became disorientated when exposed to EM fields at levels far lower than the safety threshold for humans.

*Cacurachi, S., et al., A Review of the Ecological Effects of Radiofrequency (RF) EM Fields, Environmental International, Volume 51, pages 116-140, January 2013;* a review of 113 studies from peer-reviewed publications showed that RF EMF had significant development and reproductive effects on birds and insects.

*Hayward, Lisa S., et al., Impacts of Acute and Long-term Vehicle Exposure on Physiology and Reproductive Success of the Northern Spotted Owl, Ecosphere (Ecological Society of America), June 2011;* studied the effects of off-road vehicle use and noise on the ESA-listed northern spotted owl.

standard operating procedure (SOP) for what the Navy will do when human individuals are observed in or near the mobile emitter area, but there is no similar SOP for Navy actions when animals are seen or detected. This Navy protocol must be provided in the revised Section 3.2 (Section 3.2.4.4.2, page 3.2-28 hints that EM training will cease if Endangered Species Act mammals seen at site, but this process is not defined in an SOP nor are other animals/birds explicitly included).

**Section 3.2.2.1, page 3.2-1;** the last paragraph identifies a process of the Navy consulting with the US Fish and Wildlife Service (USFWS) on the effects on ESA listed species from the stressors and impacts described in this EA. When would this consultation take place, what is the output of the consultation (a report?) and is it subject to citizen review? Furthermore, we believe this consultation must take place prior to the granting of any special-use permit by the Forest Service.

**Section 2.1.1.4 and 2.1.1.5,** pages 2-4 thru 2-7; this description of mobile emitter operations fails to state two important factors in determining impacts: time of day of operations, not just operational periods described as “8 to 16” hours per day, and what type and extent of external (or internal lighting that is visible externally) lighting is to be used during both the day-light and non-daylight hours of EM operation. Both of these items need to be presented in these descriptions of operation as well as included in the discussions of potential impacts. Since extended hours of operation is expected at each mobile emitter site (up to 16 hours a day), describe the makeup of the crew, if crew members rotate mission responsibilities (such as spotting/observing external area for humans and animals) and how long each role would be maintained (what concentration level is expected to be maintained on any given task for the 8 the 16 hour duration). If crews are to operate in shifts, would the Navy expect the “second shift” to arrive via another separate vehicle that the original crew disembarks in to the overnight location. The Navy should also provide some examples of daily mobile emitter operations, such as typical deployment start times (such as sun-rise or 0600 hours), generator start times and times of EM operations, and typical stop-times with leaving site (such as sun-set).

**Special note on this comment:** the public was told very clearly by Navy representatives in the public meeting held in Forks on 14 October 2014, that mobile emitter operations would be during daylight hours only, but what is printed in the Final EA and summarized above appears to contradict that statement as operation for “up to 16 hours per day” is simply not possible without a portion of that operation either before sunrise or after sunset.

**Section 3.5,** In regard to the visual resource, the EA assesses only the effect of the fixed non-national forest emitters on the visual environment. It never mentions the visual quality effects of the mobile emitters. Yet the mobile emitters will affect at least an order of magnitude more land area as they travel along miles of road and park at over a dozen sites in the national forests for at least 260 days each year. The transient nature of the emitters is no justification for ignoring their effect on visual quality. Their proposed ubiquitous presence throughout the western flank of the Olympic National Forest should be assessed for impacts in this section.

**Section 2.1.3, page 2-8;** the Navy in this EA has made it very difficult for the public to assess and understand previous impact evaluations done by the Navy in approved EISs and RODs for the increased air traffic over the Olympic Peninsula area. Rather than just referencing these lengthy EIS's and ROD's the Navy should excerpt key stressors and mitigations that have been specified and agreed to by the Navy for the flight activity involved in the proposed EM training and place this information in an appendix to this EA so that is readily accessible to external public reviewers.

**Section 3.2.4, page 3.2-22;** the Navy should include the added "action" of "light", inclusive of the visible spectrum, the IR and UV as they are associated with or emitted from Navy mobile EM activities. This would include an expanded discussion of "light" in the remainder of Section 3.2.4, as appropriate.

**Figure 3.2-6;** most of the Navy's proposed mobile emitters sites are located on this map within what is described as marbled murrelet critical habitat. Furthermore, the "dots" defined as murrelet occurrence with both above and below canopy behavior are either surrounded or coincident with the proposed locations of several mobile emitter sites, such as #12 and #13. The Navy should provide map expansions to selected areas of this figure such that it would be clear if the murrelet dots coincide with emitter dots or if there is a separation of many feet (the distance scale of this figure does not provide the ability to perform this determination and differentiation).

**Section 4.0;** Typically cumulative impacts analysis is done by evaluating the impact on selected resources (humans or gray wolves or spotted owls, for example) to the effects of multiple stressors at nearly the same time or sequentially with no let-up in exposures. This section does not include such a discussion but rather lists the effects of "other military activities". While this line of analysis is interesting it falls short of analyzing the impact of EM, noise, visual, and air quality stressors, for example, on humans, murrelets or the spotted owl. A revision to Section 4 should include an analysis of multiple stressors on the resources listed in the EA.

**Section 7, page 7-1, references for Section 1.0;** the biological opinion from the USFWS is dated as final in 2010, which likely means the information and data contained therein is at least 5 years old. Given the effects we have experienced from climate change on the Olympic Peninsula and the dynamics of migration patterns, feeding and nesting patterns for the spotted owl and marbled murrelet, and the scientific research references provided earlier in this comment letter, the Navy should consult with USFWS and a new biological opinion should be issued prior to or concurrent with the revision of their Electronic Warfare Range EA.

### **Special Comment**

In researching more details of what comprises "electronic warfare training and testing" we have discovered that Navy plans in this arena could include what is described by the Navy in the publication Breaking Defense as "electronic maneuver warfare". This includes the active "jamming" of detected EM signals and is described as the EA-18G Growlers flying in

trios, (instead of pairs) with two in jamming-mode and one in detection-mode. Additionally, the Navy's January 2014 Draft NWTT EIS/OEIS in Section 2.2.4 about electronic warfare states on page 2-14 that "typical electronic warfare activities include threat avoidance training, signals analysis for intelligence purposes, and use of airborne and surface electronic jamming devices to defeat tracking and communications systems". This description above, combined with the Navy's recently published Notice of Intent of October 2014 to prepare an EIS to add more (13 to 36) Growlers for Whidbey Naval Air Station then was scoped in the EIS in 2013, leads the Sierra Club to believe the Navy intends to use "jamming" which has not been discussed and evaluated in the final EA of September 2014. We are asking the Navy to respond to this question of adding more Growlers and switching from just detecting EM signals to actively jamming these detected signals (which would add a whole other layer of complexity to evaluating and understanding significant impacts to biological resources and perhaps humans) which, if true, would negate the finalization of the EA and the proposed FONSI.

## **Conclusions**

In conclusion and based on our extensive comments, NOG believes that the Forest Service should not accept the finding of "No Significant Impact" (FONSI) and decline the Navy a Special-Use Permit and access to the Forest Service roads for their mobile EM emitters, until the Navy revises and augments the final EA, requests an updated Biological Opinion from the USFWS, and (potentially) prepares a full Environmental Impact Statement (EIS). Thank you for the opportunity to comment and we look forward to your responses and the revised documents.

Sincerely,

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