

Navy Plans Electromagnetic War Games Over National Park and Forest in Washington State

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An EA 18G Growler from the Shadowhawks of Electronic Attack Squadron (VAQ) 141 takes off. (Photo: [Mass Communications Specialists 3rd Class Bradley J. Gee / US Navy](#))

Olympic National Park and Olympic National Forest in Washington State are two of the most beautiful wilderness areas in the United States. Majestic glacier-clad peaks rise above temperate rainforest-covered hills. Gorgeous rivers tumble down from the heights and the areas are home to several types of plants and animal species that exist nowhere else on earth.

These protected national commons are also the areas in and near where the US Navy aims to conduct its Northwest Electromagnetic Radiation Warfare training program, wherein it will fly 36 of its EA-18G "Growler" supersonic jet warplanes down to 1,200 feet above the ground in some areas in order to conduct war games with 14 mobile towers. Enough electromagnetic radiation will be emitted so as to be capable of melting human eye tissue, and causing breast cancer, childhood leukemia and damage to human fetuses, let alone impacting wildlife in the area.

What is at stake is not just whether the military is allowed to use protected public lands in the Pacific Northwest for its war games, but a precedent being set for them to do so across the entire country.

If it gets its way, this means the Navy would be flying Growler jets, which are electronic attack aircraft that specialize in radar jamming, in 2,900 training exercises over wilderness, communities and cities across the Olympic Peninsula for 260 days per year, with exercises lasting up to 16 hours per day.

No public notices for the Navy's plans were published in any media that directly serve the Olympic Peninsula; hence the Navy initially reported that it had received no public comments on its "environmental assessment" for the war games.

One barely advertised public comment meeting was held in the small town of Forks, a several hour drive from the larger towns and cities that will be impacted by the war games. When asked to schedule more public comment meetings, the Navy refused.

But word spread. Tens of thousands of residents across the peninsula became furious, and widespread and growing public outcry forced the Navy to extend the public comment period until November 28 and schedule more public meetings.

It is not news that the Navy has been conducting electronic warfare exercises for years, but it might come as a surprise for people to learn that according to the US Navy's Information Dominance Roadmap 2013-2028, the Navy states it "will require new capabilities to fully employ integrated information in warfare by expanding the use of advanced electronic warfare."

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The Die Is Cast

The Navy already has an area in Mountain Home, Idaho, that is available for such war gaming.

Nevertheless, according to the Navy's "environmental assessment," it opted not to fly the 400 miles to Idaho in order to save jet fuel and enable their personnel to have more time with their families.

The war games would include the use of large RV-sized trucks equipped with electromagnetic generating equipment that would be dispersed along 14 sites in Olympic National Forest and several right along the boundary of Olympic National Park. While no trucks would, in theory, be allowed inside Olympic National Park, the warplanes would most likely be crossing over the park on a regular basis.

"This is bringing militarism home in a very direct way, in one of the most pristine parts of the country."

The exercises would be conducted by naval warplanes launching from the US Naval Air Station on Whidbey Island that would fly over the northern coast of the Olympic Peninsula in order to reach the West Coast, where they would fly inland over national forestland and Olympic National Park, in order to target the vehicles' aimed electromagnetic radiation.

According to the Navy's so-called environmental assessment, the purpose of these war games is to train to deny the enemy "all possible frequencies of electromagnetic radiation (i.e. electromagnetic energy) for use in such applications as communication systems, navigation systems and defense related systems and components."

Six of the radiation emitting truck sites would be within 10 miles of the Quinault Reservation, and at least six of them would be right along the border of Olympic National Park.

Truthout requested comment from the Quinault and received this statement from Fawn Sharp, the president of the Quinault Indian Nation:

The Quinault Indian Nation has spoken with the Navy regarding the electronic warfare range proposal due to our ongoing concerns for our people and our wildlife in our usual and accustomed hunting grounds. Our people have lived here for thousands of years. We have always depended upon the fishing, hunting and gathering resources here, and managed these resources for the benefit of current and future generations. Today we co-manage these resources with our fellow sovereigns, the state and federal governments. The Navy has responded to our questions, on a government-to-government basis. At this time our only additional comment is that we will be monitoring the Navy's activities, to assure there is no harm to the resources we manage and must protect for the sake of our people, our heritage and our generations to come.

The Navy claimed it had served notice to the Makah, Quileute, Hoh and Quinault tribes, all located in close proximity to the proposed war games areas.

John Moshier, the Navy's northwest environmental manager for the US Pacific Fleet, has stated that their planes would be flying as low as 1,200 feet above the ground.

Yet the Navy's environmental impact assessment does not even mention noise pollution or the sound of the Navy's jets, and lists "no significant impacts" for public health and safety, biological resources, noise, air quality or visual resources.

Tens of thousands of outraged residents from around the Olympic Peninsula have expressed their opposition via letters to the US Forest Service, public meetings, letters to the editor in newspapers across the peninsula, flooding article comment sections and via social media.

David King, the mayor of Port Townsend, a town on the Northeast corner of the Olympic Peninsula, has voiced his opposition to the plan, along with numerous other public officials from around the Olympic Peninsula, in addition to the thousands of angry residents.

"This is bringing militarism home in a very direct way, in one of the most pristine parts of the country," Linda Sutton, a retired teacher who lives in Port Townsend, told Truthout. "Most of the people who live here do so because we are free of this kind of militarism. And people who visit here, come here for the natural beauty and environment, and if we allow this place to be turned into a war-gaming area, it is reprehensible."

"No Significant Impact?"

According to the National Park Service, the top two purposes of a national park are:

- To preserve and protect the natural and cultural resources for future generations.
- To provide opportunities to experience, understand and enjoy the park consistent with the preservation of resources *in a state of nature*.

As for national forests, according to US Code 475, which outlines the purposes for which national forests were established and how they are to be administered:

No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States; but it is not the purpose or intent of these provisions, or of said section, to authorize the inclusion therein of lands more valuable for the mineral therein, or for agricultural purposes, than for forest purposes.

The Navy's war-gaming plans are most likely in violation of the stated purposes of the National Park Service, in addition to being in violation of the aforementioned US code.

The Navy's so-called environmental assessment, which they claim includes plans for "protecting people and large animals," reported "no significant impact" would result from the \$11.5 million warfare training project, which aims to be operational by September 2015.

The report, however, failed to provide specifics on either the maximum potential exposure or the intensity of the electromagnetic radiation emitters from the trucks to be used in the war games.

"Experimental evidence has shown that exposure to low intensity radiation can have a profound effect on biological processes."

Nevertheless, Dean Millett, the district ranger for the Pacific district of the Olympic National Forest, had issued a draft notice of a decision in which he had agreed with the Navy's finding of "no significant impact," which has cleared the way for a Forest Service special permit to be issued to the Navy for the war games. Millet, however, insists that the decision is his to make, but has not made a final decision yet.

Under massive public pressure, however, Millett reopened public comment because of what he claimed was "renewed interest . . . from members of the public who were unaware of the proposal."

Mike Welding, the Naval Air Station at Whidbey Island spokesman, recently admitted to reporters that any antennas emitting electromagnetic energy produce radiation.

"As a general answer, if someone is in the exclusion area for more than 15 minutes, that's a ballpark estimate for when there would be some concern for potential to injure, to receive burns," he said.

The Navy's "environmental assessment" (EA) states, "There are no conclusive direct hazards to human tissue as a result of electromagnetic radiation," and, "Links to DNA fragmentation, leukemia, and cancer due to intermittent exposure to extremely high levels of electromagnetic radiation are speculative; study data are inconsistent and insufficient at this time."

However, in direct contradiction to the Navy's responses along with their so-called environmental assessment, in 1994, the US Air Force published the report, "Radiofrequency/Microwave Radiation Biological Effects and Safety Standards: A Review."

Page 18 of the report states: "Nonthermal disruptions have been observed to occur at power densities that are much lower than are necessary to induce thermal effects. Soviet researchers have attributed alterations in the central nervous system and the cardiovascular system to the nonthermal effect of low level RF/MW radiation exposure."

The report concludes, "*Experimental evidence has shown that exposure to low intensity radiation can have a profound effect on biological processes.*" (emphasis added)

"The planned range may alter the attractiveness of this region as a destination for tourists and there is potential for significant economic impact."

It is important to note that at the time that report was written, the standard for exposure was 50,000 milliwatts per square meter. Today, the maximum exposure limit is 10,000 milliwatts per square meter, yet even that level is more than 1 million times higher than the allowable exposure limits published in the 2012 BioInitiative Report.

Furthermore, the "EA" quotes from a study (Focke et al. 2009) that deals with extremely low frequency radiation (50 hertz) only and is thus completely irrelevant to the gigahertz radiation being proposed (1 gigahertz equals 1 billion hertz).

The Navy has not provided any relevant studies that prove no long-term effects to flora and fauna for their proposed 4,680 hours per year of exposure.

Nor does the "EA" factor in the electromagnetic radiation from the Navy's Growler jets, as the jets will be using it to locate ground transmitters.

Peer-reviewed, published scientific studies about the harmful effects to humans of electromagnetic radiation abound.

A quick search on Google Scholar for "Electromagnetic fields risk to humans" produces over 63,000 results, most of which are published scientific studies that chronicle the deleterious impact of electromagnetic fields to the human organism.

Some of the studies titles are: "Carcinogenicity of radiofrequency," "The sensitivity of children to electromagnetic fields," "Exposure to extremely low frequency electromagnetic fields and the risk of malignant diseases - an evaluation of epidemiological and experimental findings," "Extremely low frequency electromagnetic fields as effectors of cellular responses in vitro: possible immune cell activation," and "Exposure to electromagnetic fields and the risk of childhood leukemia," to name just a few.

One study, titled "Leukemia and Occupational Exposure to Electromagnetic Fields: Review of Epidemiologic Surveys," states in its abstract: "Results for total leukemia show a modest excess risk for men in exposed occupations, with an enhanced risk elevation for acute leukemia and especially acute myelogenous leukemia."

A report titled "Biological effects from electromagnetic field exposure and public exposure standards," published in the journal Biomedicine and Pharmacotherapy in 2008, concluded:

Health endpoints reported to be associated with ELF and/or RF include childhood leukemia, brain tumors, genotoxic effects, neurological effects and neurodegenerative diseases, immune system deregulation, allergic and inflammatory responses, breast cancer, miscarriage and some cardiovascular effects. The BioInitiative Report concluded that a reasonable suspicion of risk exists based on clear evidence of bioeffects at environmentally relevant levels, which, with prolonged exposures may reasonably be presumed to result in health impacts.

Electromagnetic radiation's impact on wildlife is very well documented, as thousands of peer-reviewed scientific studies have been published on the topic.

In May 2014, a study titled "Electromagnetic Interference Disrupts Bird Navigation, Hints at Quantum Action" was published in the journal Nature. "Researchers found out that very weak electromagnetic fields disrupt the magnetic compass used by European robins and other songbirds to navigate using the Earth's magnetic field," according to the study.

That same month another study, "Sensory biology: Radio waves zap the biomagnetic compass," was also published in *Nature*. "Weak radio waves in the medium-wave band are sufficient to disrupt geomagnetic orientation in migratory birds, according to a particularly well-controlled study," *Nature* reports. It added, "Interference from electronics . . . can disrupt the internal magnetic compasses of migratory birds."

A 2013 study published in *Environment International*, "A review of the ecological effects of radiofrequency electromagnetic fields (RF-EMF)," concluded, "In about two-third[s] of the reviewed studies ecological effects of RF-EMF [were] reported at high as well as at low dosages."

A June 2011 study published in *Ecosphere*, titled "Impacts of Acute and Long-Term Vehicle Exposure on Physiology and Reproductive Success of the Northern Spotted Owl," found that while the spotted owl is able to compensate for a low level of increased noise pollution and vehicle presence up to a threshold, "beyond which disturbance impacts may be greatly magnified - and even cause system collapse." The northern spotted owl is an endangered species.

While more studies on the impact of electromagnetic radiation on larger animals are underway and the results pending, the negative impacts on birds in the proposed war-gaming areas are clear.

Richard Jahnke, the president of the Admiralty Audubon Society located on the Olympic Peninsula, submitted comments to Greg Wahl, the environmental coordinator for the US Forest Service, who is fielding comments about the Navy's war games plans.

Jahnke's letter, which he provided to *Truthout*, clarifies the impact on birds in the war game area: "The western side of the Olympic National Park has a unique soundscape. A location in the Hoh River valley was identified as the quietest place in the lower 48 with respect to anthropogenic sound (see onesquareinch.org for further info)."

Sullivan sees many holes in how both the Forest Service and Navy have gone about making the war game exercises happen without following proper protocol.

Jahnke noted how the Navy's so-called EA did not assume any economic impact, hence categorically excluding that from their analysis. Of this he stated, "The planned range may alter the attractiveness of this region as a destination for tourists and there is potential for significant economic impact. Since this region is already economically stressed, even small variations in overall economic activity may result in large, relative impacts. The Navy should, therefore, assess the potential economic impact before proceeding."

According to the Admiralty Audubon Society, the Pacific Coast is part of the Pacific Flyway, which makes it a critical pathway for migratory birds, with an estimated 1 billion birds migrating along the flyway annually.

"The Navy's assessment includes little discussion of indirect impacts of EMR [electromagnetic radiation] on wildlife and does not incorporate the most recent, best available science," Jahnke wrote, adding, "Since successful migration is critical to the survival of a migrating species, potential navigational impacts must [be] evaluated. However, these potential impacts are not considered in the current EA and hence the potential impacts were not assessed."

Thus, the Admiralty Audubon Society has gone on record in recommending that the Navy's EA and its associated "Findings of No Significant Impacts" not be adopted.

"The deficiencies documented above are significant and must be addressed," Jahnke stated. "For these reasons, the EA does not meet the requirements of law and a full environmental impact statement under NEPA [National Environmental Policy Act] must be prepared."

Navy officials said that they "did not know" the impact of the electromagnetic radiation emissions "on small animals."

The Forest Service's Greg Wahl chose to parrot the Navy's finding of "no significant impact" for the war games project.

Forest Service Response

Wahl chose not to respond to Truthout's repeated requests for comment on how the Navy's plans would have "no significant impact" on wildlife or humans in the affected areas.

Dean Millett, Olympic National Forest's district ranger, downplayed impacts of the Navy's plans, and told reporters that the Forest Service roads where most of the emitters will be located "are remote," and added, "They don't get much traffic unless there is some activity going on in the area."

He claimed the electromagnetic radiation transmissions would "cease if large animals come into the area where the exercise is taking place," and said he "was not concerned about the electromagnetic radiation emissions" and said this was "just one more small dose" of electromagnetic radiation.

Olympic Peninsula resident Karen Sullivan worked for the US Fish and Wildlife Service for 15 and a half years, in Delaware, Washington, DC, and from 1998 through 2006 in Alaska. She worked in the Division of Endangered Species, External Affairs, and spent the last seven years as assistant regional director for

External Affairs, which covered all media and congressional interaction and correspondence, plus outreach, publications and tribal grants for the Alaska region.

She called the Navy's so-called environmental assessment "bogus" because "it's relying on the biological opinion, which is totally invalid because it is old and not of broad enough scope."

A "biological opinion" is a narrowly focused legal document prepared by the US Fish and Wildlife Service for the purpose of evaluating whether an activity will jeopardize the continued existence of a listed species. Hence the Navy, in theory, is required to consult with Fish and Wildlife about endangered species and other impacts, according to Section 7 of the Endangered Species Act.

"To illustrate this, the Navy can go explode mines on the sea floor, which creates a kill zone and alters the seafloor habitat, but if the one endangered fish being evaluated in the document doesn't use that seafloor habitat, then the effects of that explosion are called 'insignificant' because they don't affect that particular species," Sullivan told Truthout.

The Sierra Club also submitted a letter to Wahl protesting the Forest Service's concurrence with the Navy's finding of "no significant impact." The letter began by taking issue with the Forest Service not adhering to its mission:

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.

Sullivan takes issue with the Navy's "EA" for numerous reasons, which she detailed for Truthout:

This 200-page document covered a huge area of airspace, but only 875 acres of land were specifically named, between Everett and Mt. Baker. The lone ground-based emitter mentioned was located in Coupeville, and the number of annual training events for Growler jets proposed back in 2009 was 275. That's what the biological opinion evaluated. Not three mobile emitters and one fixed tower in 14 brand-new places, not 36 low-altitude Growler jets in areas previously not evaluated, not 2,900 Growler training events in the Olympic National Forest and another 2,100 elsewhere, for eight to 16 hours per day, 260 days per year. This is 20 times the level of activity that was covered in the biological opinion; therefore, using it so dishonestly to justify their new plans invalidates their environmental assessment.

Sullivan believes the Navy is violating NEPA by their initial attempts to not adequately seek public comment, and pointed out how the Navy tried to use the same tactic in Mendocino, California, which was met with similar public outcry then as well.

Sullivan sees many holes in how both the Forest Service and Navy have gone about making the war game exercises happen without following proper protocol.

"The Forest Service is supposed to evaluate everything else, including the effects of chronic radiation on trees and plants and animals, and there is nothing in their EA about that . . . nothing," she said. "There is clearly an absence of data, and they are not doing their own research."

The Sierra Club is clear in their findings and what they believe the Forest Service and Fish and Wildlife Service must do:

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 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 [Finding of no significant impact] 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.

Like Sullivan, the Sierra Club found sections of the "EA" that needed "to be updated and rewritten 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) . . . 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."

Sullivan pointed out that there are at least two endangered species, the marbled murrelet and the bull trout, that would likely be adversely affected by the war games, and possibly rendered extinct.

The Sierra Club pointed out that the northern spotted owl, also an endangered species, would also be adversely affected.

The group also voiced its concerns with the fact that the planned missions begin well before daylight and continue long into the night, the sound pollution emitted by the generators on the 14 mobile units and Growler jets, several areas in the "EA" where the Navy contradicts itself, impacts on gray wolves, vagueness in

many areas of the Navy's report, and the fact that Growler jets will be flying in trios ("with two in [radar] jamming mode and one in detection-mode"), among several other issues.

The Sierra Club's letter to Wahl contained several open-ended questions and concerns, and pointed toward one section of concern, stating, "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."

Sullivan concluded with asking open-ended questions to the Navy and federal agencies involved:

Does the Navy intend to reinitiate formal consultation with the US Fish and Wildlife Service and the National Marine Fisheries Service, to obtain more recent evaluations of impacts to biological resources? Will the Navy revise the EA to reflect all of the information that was left out? Is it possible to insist there could still be "no significant impacts" unless you are blindfolded?

The current public comment period has been extended until November 28, and it is yet to be determined if the Navy will succeed in their efforts to carry out their war games on the Olympic Peninsula.

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Dahr Jamail

Dahr Jamail, a Truthout staff reporter, is the author of *The Will to Resist: Soldiers Who Refuse to Fight in Iraq and Afghanistan*, (Haymarket Books, 2009), and *Beyond the Green Zone: Dispatches From an Unembedded Journalist in Occupied Iraq*, (Haymarket Books, 2007). Jamail reported from Iraq for more than a year, as well as from Lebanon, Syria, Jordan and Turkey over the last ten years, and has won the Martha Gellhorn Award for Investigative Journalism, among other awards.

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