

Documents Show Navy's Electromagnetic Warfare Training Would Harm Humans and Wildlife/Dahr Jamail

Monday, 15 December 2014 10:59 By Dahr Jamail, Truthout | Report



A shooter signals an EA-18G Growler aboard USS Carl Vinson. (Photo: [Matt Buck](#))

If the US Navy gets its way, it will begin flying Growler supersonic warplanes over Olympic National Forest and wilderness areas of the Western Olympic Peninsula next September in order to conduct electromagnetic warfare training exercises.

As [Truthout previously reported](#), this would entail flying 36 jets down to 1,200 feet above ground in some areas, in 2,900 training exercises lasting up to 16 hours per day, 260 days per year, with the war-gaming going on indefinitely into the future. The Navy's plans also include having 15 mobile units on the ground with towers emitting electromagnetic radiation signals for the planes to locate as part of their exercises.

Navy personnel have been met with outrage, anger and a growing concern from the public about the negative health impacts to humans and wildlife in the areas where their war games are planned.

The Navy appeared to attempt to slide their plans by the public by choosing not to advertise public comment periods and meetings in the local media of the areas where their war games would be taking place. However, word got out and the Navy has had to extend public comment periods and hold more public meetings.

Navy personnel have been met with outrage, anger and a growing concern from the public about the negative health impacts to humans and wildlife in the areas where their war games are planned.

The Navy's response has been to point people toward their own so-called [environmental assessment](#) (EA), and claim that "no significant impacts" will occur to wildlife or humans from their electromagnetic war games.

However, Truthout has acquired several documents from the Navy, Air Force and even NASA that directly contradict the Navy's claims that their exercises pose no threat to wildlife and humans, and spoke with an expert on the human impact of electromagnetic radiation fields who also refutes the Navy's claims.

Dr. Martin Pall, a professor emeritus of biochemistry and medical sciences with Washington State University, has written several peer-reviewed papers on the subject of how electromagnetic radiation of various levels impacts human beings, as well as given [international lectures](#) on the subject.

The health impacts of even the Navy's lowest levels of electromagnetic radiation emissions are shocking.

Pall told Truthout that these claims by the Navy are "untrue," and provided reams of evidence, including his own scientific reports, that document, in detail, the extremely dangerous impacts of even very low levels of the microwave and electromagnetic radiation that the Navy would be emitting during their war games.

Pall's paper, titled "[Electromagnetic fields act via activation of voltage-gated calcium channels to produce beneficial or adverse effects](#)," outlines the impact of electromagnetic radiation on biological organisms, and was given the honor of being posted on the "Global Medical Discovery" site as one of the top medical papers of 2013.

Pall told Truthout that the Navy has not provided "any evidence" to support their claims that electromagnetic frequencies (EMF) do not impact wildlife and humans deleteriously.

According to Pall, a NASA study, and more than 1,000 other scientific reports and studies, the health impacts of even the Navy's lowest levels of electromagnetic radiation emissions are shocking.

The Doctor's Opinion

Pall explained that people and agencies that advocate for the current safety standards around EMF levels claim that we only have to be concerned about their thermal/heating effects.

Pall's aforementioned paper and the 24 studies cited within it show that the generally accepted EMF safety standards are based on a false assumption: "that all you have to worry about is heating."

The Navy claims that there is "no conclusive evidence" that EMF radiation harms humans or wildlife due to "inconsistent data" and "conflicting reports" on the subject.

Pall vehemently disagrees with this position.

"We have a situation now where most people in the world are exposed to microwave frequency radiation based on scientific studies that have no scientific merit."

His analysis of scientific reports and data shows that a great number of them show harmful effects at non-thermal levels, when it is viewed consistently according to cell types, fields and end points of studies. Nevertheless, many of the studies claimed there were "no effects" from EMF radiation, simply because the effects were non-thermal, despite the studies themselves showing evidence of non-thermal effects.

"So in the data there is no inconsistency whatsoever. None," according to Pall.

"This has been going on for years, and people have been assured of safety based on these things and it is absolute nonsense," he explained. "So we have a situation now where most people in the world are exposed to microwave frequency radiation based on scientific studies that have no scientific merit."

Pall said he sees the entire regulating system as flawed, and there is ample scientific evidence to back his perspective.

"We know the claims that you only have to worry about heating effects are false; there is no question on that," he said. "All the assurances of safety are based on that assumption. So this whole thing is of great concern."

According to Pall, there is ample evidence of biological effects from EMF radiation that are "extremely worrisome." These include cellular DNA damage that causes cancer and infertility, "and both of these have been repeatedly reported to occur with low-level exposures."

Nevertheless, Pall added, "There are studies that don't report these, because they are done under different conditions, and that is not surprising."

"What the Navy is doing we have no idea because they don't tell us . . . but from what little they have told us, they are using a lot of pulse fields in wavelengths that are damaging to us."

To make his point, Pall cited an **infertility study** conducted with rats that showed there was less fertility with each generation, "and by the fifth generation they were completely infertile."

Pall was very clear in his assessment of the potential impact of the Navy's EMF war-gaming plans, as well as how EMF radiation impacts our daily lives - from cell phones, to wireless networks, to the myriad other electronic devices that are so common today.

"So what we're doing is exposing ourselves to these fields," he said. "What the Navy is doing we have no idea because they don't tell us . . . but from what little they have told us, they are using a lot of pulse fields in wavelengths that are damaging to us, to biological organisms. They give us not one iota of evidence of what biological effects are produced by those fields, and don't even tell us what fields they are using. You only find empty statements of 'don't worry about these things.'"

Numerous studies back another of Pall's points, which is that there is ample evidence that younger people are more susceptible than older people to the harmful effects of EMF radiation.

"This is why childhood leukemia is more common than adult leukemia," Pall said.

Dean Millett, the district ranger for the Pacific district of the Olympic National Forest, has 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 US 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 claims that he has not made a final decision yet.

Millet claims to not be concerned about the impact of the Navy's war-gaming on amphibians, as well as other wildlife, including birds.

"Millet's statements about the Navy's EIS [environmental impact statement] being solid, and his not worrying about amphibians, are interesting to me," Pall said when asked about the position of Millet and the Forest Service. "Millet has been emailed this evidence, that amphibians are particularly sensitive to these fields, and much of the amphibians' decline around the world are being attributed to these fields. We also know that migrating birds are particularly susceptible. Yet neither Millet nor the Navy has given any evidence to the contrary, and that is not science. Science is always based on evidence."

During a recent public information meeting, the Navy told Truthout that their Growler jets would not be emitting any EMF radiation, despite the fact that all the planes they intend to use for their war-gaming will be "fully equipped" with all of the electromagnetic warfare weapons available for radar jamming, and other operations.

If what the Navy says is true, and that the only EMF radiation signals emitted will be from their 15 mobile ground towers, which they claim to be "no worse than a cell phone tower," this will still be extremely hazardous to biological organisms in the area, according to Pall.

"There are close to 1,000 studies on electromagnetic fields that show the production of oxidated stress," he said. "So even just using a cell phone gives you oxidative stress in your brain by breaking down your blood brain barriers that protect you from infections and other things."

Pall explained that, according to his and numerous other studies, there are numerous neuropsychiatric effects caused by this "low-level" EMF radiation, including depression.

"They are planning on running a huge experiment without collecting the data, so everyone out there will be exposed and be a part of their experiment."

Physical effects include heart arrhythmias and tachycardia, "and these can lead to sudden cardiac deaths," Pall said. "Slow heartbeats also occur at increasing rates, and these are indirect effects and they are all life threatening. There is a lot of literature on cardiac effects on humans, and I'm writing a paper on it right now."

Pall also cited a study that showed that when young rats are exposed to low-level EMF radiation, "you end up with middle-aged rats that have Alzheimer's disease. Rats don't normally develop Alzheimer's."

Pall cited one of the philosophers of science whose work determined the structure of modern science, **Karl Popper**, who believed the strongest type of scientific evidence is that evidence which falsifies a theory.

"So we have literally thousands of studies that have falsified the heating paradigm for microwave fields, each of which individually have falsified the claim that all you have to worry about is heating," Pall explained. "Now, what Popper would say then is, obviously the statement that all you have to worry about is heating is a false claim. You only have to falsify it once. So the only way you can claim safety is to look at each of those individual studies and prove that it has been deeply flawed. The Navy hasn't done that, nor has the ranger, and they haven't done it because it can't be done."

Pall is confident in this statement because in order for the Navy and Forest Service to claim the war-gaming will be safe, they would have to test every EMF field, at every level of frequency emission, at every distance, for every human and animal, at every age.

But instead of conducting this kind of thorough research, according to Pall, "They are planning on running a huge experiment without collecting the data, so everyone out there will be exposed and be a part of their experiment."

A **2013 paper** published in the journal *Reviews on Environmental Health*, titled "Radiation from wireless technology impacts the blood, the heart and the autonomic nervous system," lists a series of 14 different pleas from multiple scientists who state the need for much more vigorous action on the health effects from microwave EMFs.

Nevertheless, the Navy and Forest Service maintain their position that there would be "no significant impact" from the electromagnetic war-gaming, despite reams of well-documented scientific evidence to the contrary.

Thus, Pall believes the burden of proof lies with both the Navy and the Forest Service.

"So the Navy's response is both untrue and illogical," he said. "We know all these fields have all these effects. So the Navy has to come up with the evidence that proves their EMF fields don't cause all these problems. The Navy and the ranger [Millet] need to answer these questions. I've seen no inconsistencies in the literature at this point, and what they need to do as scientists, as opposed to propagandists, is to show that each study that falsifies their point

of view is deeply flawed, and they've not even started to do that, and there are thousands of studies in the scientific literature."

Other Studies

In February 2014, Willie Taylor, director of the Office of Environmental Policy and Compliance with the US Department of the Interior, sent a letter to Eli Veenendall with the US National Telecommunications and Information Administration. In it, Taylor lists several concerns about the impact of communication towers, as well as towers emitting "electromagnetic radiation."

"The Department recommends revisions to the proposed procedures to better reflect the impacts to resources under our jurisdiction from communication towers," Taylor writes in the letter. "The placement and operation of communication towers, including un-guyed, unlit, monopole or lattice-designed structures, impact protected migratory birds in two significant ways. The first is by injury, crippling loss, and death from collisions with towers and their supporting guy-wire infrastructure, where present. The second significant issue associated with communication towers involves impacts from non-ionizing electromagnetic radiation emitted by them."

The Navy consistently claims that their towers will only emit as much radiation as cell towers, yet this is exactly the level of radiation cited as a problem.

The letter, of which Truthout acquired a copy, included an attachment that stated: "Radiation studies at cellular communication towers were begun circa 2000 in Europe and continue today on wild nesting birds. Study results have documented nest and site abandonment, plumage deterioration, locomotion problems, reduced survivorship, and death (e.g., Balmori 2005, Balmori and Hallberg 2007, and Everaert and Bauwens 2007)."

The Navy consistently claims that their towers will only emit as much radiation as cell towers, yet this is exactly the level of radiation cited in the aforementioned letter as a problem, as well as the levels described by Pall, the electromagnetic radiation expert.

Furthermore, the letter notes that the Federal Communications Commission continues to use outdated exposure standards when it comes to radiation emitted from cell phone towers.

"The problem," the letter continues, "appears to focus on very low levels of non-ionizing electromagnetic radiation. For example, in laboratory studies, T. Litovitz (personal communication) and DiCarlo et al. (2002) raised concerns about impacts of low-level, non-thermal electromagnetic radiation from the standard 915 MHz cell phone frequency on domestic chicken embryos - with some lethal results (Manville 2009, 2013a). Radiation at extremely low levels (0.0001 the level emitted by the average digital cellular telephone) caused heart attacks and the deaths of some chicken embryos subjected to hypoxic conditions in the laboratory while controls subjected to hypoxia were unaffected (DiCarlo et al. 2002)."

The letter concludes:

Balmori found strong negative correlations between levels of tower-emitted microwave radiation and bird breeding, nesting, and roosting in the vicinity of electromagnetic fields in Spain. He documented nest and site abandonment, plumage deterioration, locomotion problems, reduced survivorship, and death in House Sparrows, White Storks, Rock Doves, Magpies, Collared Doves, and other species. Though these species had historically been documented to roost and nest in these areas, Balmori (2005) did not observe these symptoms prior to construction and operation of the cellular phone towers.

Furthermore, a [NASA study](#) published in April 1981, titled "Electromagnetic Field Interactions with the Human Body: Observed Effects and Theories," was clear about the damage that EMF radiation caused to humans. Information for the NASA report was collected from over 1,000 written sources that "included journals, conference proceedings, technical reports, books, abstracts, and news items," and "additional sources included in-person meetings, telephone interviews, and lecture tapes."

"Both theories and observations link non-ionizing electromagnetic fields to cancer in humans," the report notes. "Man is changing his terrestrial electromagnetic environment . . . If he knew the consequences of these changes, he might wish to compensate for or enhance them."

The study "is concerned chiefly with those lower frequencies" of EMF radiation, just as are most of the aforementioned studies as well as Pall's work, all of which obviously applies to the impact of the Navy's claims that only their towers would be emitting signals, and not their Growler warplanes.

As for adverse effects from EMF radiation, the report states, "Some result in death and persistent disease," with other impacts being "ventricular fibrillation and sudden infant death syndrome," "cataracts," "accelerated aging," and that electromagnetic fields "may promote cancer" and cause a "decrease in sex function."

Aircraft noise, another issue related to the Navy's war-gaming plans, has also been noted as biologically harmful by the Navy itself.

The NASA study lists dozens of other human health impacts, and one of the tables in the report, titled, "Subjective effects on persons working in radio frequency electromagnetic fields," lists symptoms that include hypotension, exhausting influence on the central nervous system, decrease in sensitivity to smell, periodic or extreme headaches, extreme irritability, increased fatigability, and intensification of the activity of the thyroid gland.

Further evidence comes from Swiss Re, a group which describes itself as "a leading wholesale provider of reinsurance, insurance and other insurance-based forms of risk transfer," which released their own risk assessment report, within which they listed "emerging risk topics" which could impact the insurance industry in the future.

The report lists "unforeseen consequences of electromagnetic fields" as having "high potential impact."

Aircraft noise, another issue related to the Navy's war-gaming plans, has also been noted as biologically harmful by the Navy itself.

According to the Naval Research Advisory Committee's April 2009 "Report on Jet Engine Noise Reduction," jet noise is described as "a problem" and the Navy was advised to take "actions to reduce noise in existing and next generation tactical jet aircraft engines."

Noise-Induced Hearing Loss

For every three decibels over 85, the permissible exposure time before hearing damage can occur is cut in half.

Decibel level	Example and Permissible Exposure Time
30	Whisper
45	Refrigerator humming, rainfall
60	Normal conversation
85	Heavy city traffic; 8 hours
95	Motorcycles; 1 hour

105	MP3 player at maximum volume; 7.5 minutes
113	Older Navy jets at 1,000 feet; less than 1 minute
120	Sirens; less than 30 seconds
150	Gun muzzle blast, Growler jets at takeoff. (No noise levels exist for Growlers flying in trios a

Sources: Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health

The report also acknowledges that the US Department of Veterans Affairs was spending more than \$1 billion annually on hearing loss cases alone, as well as the fact that the Navy's jet noise is "a serious health risk," and that despite this, "tactical jet noise levels have increased as the velocity and airflow from these engines have increased to produce added thrust."

The executive summary of this report states that the ongoing hearing loss issues and efforts toward increasing hearing protection of Navy personnel will "Require further development of noise abatement procedures to minimize the noise footprint around Naval and Marine Air Stations. And finally, it will require more research into the physiological effects of the full spectrum of noise - including low frequency pressure levels - on humans."

As for impact on wildlife, Dr. Robert Beason, a professor of biology at the State University of New York at Geneseo, speaking at a workshop titled "Avian Mortality at Communications Towers" sponsored by the US Fish and Wildlife Service, the Ornithological Council, and the American Bird Conservancy, made several statements of concern about the impact of microwave signals and other electromagnetic radiation from communication towers similar to the towers the Navy plans to use for their warfare training.

"Peter Semm and I have found that a pulsed microwave signal results in changes in the rate of spontaneous activity of superficial neurons in the avian brain," Beason said. "These responses are occurring in higher centers of the brain, not in the lower centers where they could be filtered out."

He concluded his presentation urging caution, and clearly stating that more work needs to be done to safeguard migratory birds in regards to radio and electromagnetic radiation emitting towers located where they fly.

"There are numerous questions related to the features of communication towers for which we lack basic knowledge of either the neural or the behavioral responses of the birds," Beason said. "Gaining this type of information is paramount in determining what features of these towers can be modified in such a way to decrease their attractiveness to birds to allow communication field engineers to design and construct these towers in such a way to reduce the impact on migratory birds."

Navy Admits Harmful Biological Effects

On October 4, 1971, the Naval Medical Research Institute published a research report written by Dr. Zorach Glaser, of which Truthout acquired a copy. The title of the report is "Bibliography of Reported Biological Phenomena ('Effects') and Clinical Manifestations Attributed to Microwave and Radio-Frequency Radiation."

Given that the Navy continues to claim that their EMR warfare training exercises will have "no significant impact" on humans, it is interesting to note that their own research paper's abstract states:

More than 2,000 references on the biological responses to [microwave and] radio frequency and microwave radiation, published up to June 1971, are included in the bibliography. (Three supplementary listings bring the number of citation to more than 2,300.) Particular attention has been paid to the effects on man of non-ionizing radiation at these frequencies.

The Navy's paper lists well over 100 negative biological effects caused by microwave and radio frequency radiations, of which here is a partial list from their report: corneal damage, tubular degeneration of testicles, brain heating, alteration of the diameter of blood vessels, liver enlargement, altered sex ratio of births, decreased fertility, sterility, altered fetal development, decreased lactation in nursing mothers, altered penal function, death, cranial nerve disorders, seizures, convulsions, depression, insomnia, hand tremors, chest pain, thrombosis, alteration in the rate of cellular division, anorexia, constipation, altered adrenal cortex activity, chromosome aberrations, tumors, altered orientation of animals, birds and fish, loss of hair, and sparking between dental fillings.

Pall found the report notable, and suggested that in order to prove there are no biological effects possible from their EMR warfare training, the Navy would need to provide a specific response to each of the studies cited in their own report.

"What they need to show is that none of the over 2,000 studies that should be well known to them are not relevant to their planned tests for the Olympic peninsula," Pall said. "Those studies date, of course from before late 1971 and there have been many thousands of apparently relevant studies published since that time, but perhaps they should start with these studies which were important enough to be cited by the Naval Medical Research Institute in 1971."

US Air Force Acknowledges Health Effects

A June 1994 US Air Force document, titled, "Radiofrequency/Microwave Radiation Biological Effects and Safety Standards: A Review," authored by Scott Bolen, clearly acknowledges the non-thermal health effects.

"It is known that electromagnetic radiation has a biological effect on human tissue."

The report, signed and vetted by the US Air Force Chief of the Wide Area Radar Surveillance Division and the US Air Force Deputy Director of the Surveillance and Photonics Department, states in its abstract, "It is known that electromagnetic radiation has a biological effect on human tissue."

The introduction of the report states that "researchers have discovered a number of biological dysfunctions that can occur in living organisms" and that "exposure of the human body to RF/MW [radio frequency/microwave] radiation has many biological implications" that range from "innocuous sensation of warmth to serious physiological damage to the eye," and added that "there is also evidence that RF/MW radiation can cause cancer."

The report goes on to acknowledge that RF/MW radiation "is known to have a biological effect on animals and humans" and lists biological impacts like "damage to major organs, disruption of important biological processes, and the potential risk of cancer," among many others which include "mutagenic effects," "cardiovascular effects," negative effects on chromosomes, and notes that "Soviet investigators claim that exposure to low-level radiation can induce serious CNS [central nervous system] dysfunctions."

Ongoing Concerns

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.

"How can Navy jets be allowed to fly over wilderness areas and do what they do, and potentially destroy a wilderness soundscape that exists within a wilderness area? How can that be legal?"

She called the Navy's so-called environmental assessment "bogus" because "it is old and not of broad enough scope."

"It's baffling to try to pin down what they [the Navy] are doing on paper, but it is nonetheless very obvious what they are doing," she said. "It's certainly not in the public interest and certainly takes away from the public trust of these lands. How can Navy jets be allowed to fly over wilderness areas and do what they do, and potentially destroy a wilderness soundscape that exists within a wilderness area? How can that be legal? I can't understand."

Dr. Pete Lauritzen, a professor emeritus of engineering from the University of Washington, recently attended a Navy public information scoping session in order to find out specifics about the types and intensities of radiation that will be used in the Navy's war games, but was frustrated by the Navy's lack of forthrightness.

Nearly 400 people attended the scoping session, most of who expressed their concerns by filing official comments to the Navy.



The US Navy has held several "scoping sessions" where they invited the public to provide comments about the war-gaming plans. Each session became increasingly crowded, with the vast majority of those providing comment being opposed to the Navy's plans. (Photo: Dahr Jamail)



Former US Fish and Wildlife employee Karen Sullivan who attended a recent Navy scoping session (not pictured) told Truthout, "The Navy is behaving in a way that makes their sense of entitlement very obvious." (Photo: Dahr Jamail)

Lauritzen was frank about what should be done.

"My general concern is that the EIS [environmental impact statement] should be done by an independent party that is reliable and has a good reputation. But the Navy is doing their own EIS, so that means they are withholding information and only giving out what they want, and being quite vague on specifics," he said.



Port Townsend Mayor David King, who expressed his concerns with the Navy's plans of increasing the number of jets and ensuing noise pollution. (Photo: Dahr Jamail)

David King, the mayor of Port Townsend, a small town on the northeast tip of the Olympic Peninsula that would be heavily impacted by increased jet noise as well as affected economically from the Navy's plans, was also present at the Navy's recent scoping meeting in his town to express his concerns.

"My main concern is that over the last year we've heard much more noise impacts than we've heard in prior years," King told Truthout. "And a further expansion of the Growler fleet seems to me to indicate that that situation will only get worse."

King plans to talk with city officials in other towns and cities that will be impacted by the Navy's plans.

Truthout contacted the Navy and asked if the Navy had conducted studies that would disprove the more than 1,000 studies and papers that show negative impacts on biological organisms resulting from EMF radiation, and if so, where could the results be viewed.

Naval Public Affairs Officer Mike Welding provided the following response:

The Navy uses the Institute of Electrical and Electronics Engineers (IEEE) "Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz," to make its determinations. The IEEE standard serves as a consensus standard developed by representatives of industry, government agencies, the scientific community and the public. Additionally, the Navy has a long history of using these systems safely and employed them successfully to provide our aviators the training they need without incident or adverse effects.

Welding also provided the "NAS Whidbey Island's Electronic Warfare fact sheet," which repeatedly stated that the Navy's war-gaming has "no adverse effects to people or the environment," but failed to provide any evidence to support these claims.

Welding did not provide any specific response to Truthout's aforementioned questions addressing the scientifically proven negative impacts of EMF radiation on biological organisms.

Sullivan, the Olympic Peninsula resident, is frustrated by the Navy's ongoing lack of adequate responses to people who are concerned about the possible war-gaming, and was frank about what she thought would be required to stop the electromagnetic warfare training plans for the Western Olympic Peninsula.

"The Navy is behaving in a way that makes their sense of entitlement very obvious," she said. "And I have been told by a congressional staffer that this is probably going to have to be settled in court."

Copyright, Truthout. May not be reprinted without permission.

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 10 years, and has won the Martha Gellhorn Award for Investigative Journalism, among other awards.

His third book, *The Mass Destruction of Iraq: Why It Is Happening, and Who Is Responsible*, co-written with **William Rivers Pitt**, is available now on Amazon. He lives and works in Washington State.

RELATED STORIES

Dahr Jamail | [BP: Four Years On, No Restoration in Sight](#)

[By Dahr Jamail, Truthout | Report](#)

Dahr Jamail | [A Nation on the Brink: How US Policies Sealed Iraq's Fate](#)

[By Dahr Jamail, Truthout/TomDispatch | News Analysis](#)

Dahr Jamail | [Navy Plans Electromagnetic War Games Over National Park and Forest in Washington State](#)

[By Dahr Jamail, Truthout | Report](#)

[Truthout Interviews Dahr Jamail on Electromagnetic Radiation War Games in Washington State](#)

[By Ted Asregadoo, Truthout | Video Interview](#)

Dahr Jamail | [Are Humans Going Extinct?](#)

[By Dahr Jamail, Truthout | Interview](#)