



# Enhancing Electronic Warfare Training in the Pacific Northwest

## Enhancing existing training in the Northwest

The Navy has conducted electronic warfare (EW) training in the Pacific Northwest for close to 40 years and is in the process of enhancing that training by fielding additional systems necessary to provide specific electronic warfare training locally.

The Navy intends to use electronic signal emitters to improve aircrew training for aviators from electronic warfare squadrons based at Naval Air Station (NAS) Whidbey Island training in the Northwest Training Range Complex. The Navy plans to use a fixed electronic emitter on Navy property at Pacific Beach and as many as three mobile emitter vehicles that will set up intermittently in remote, unpopulated U.S. Forest Service and State Dept. of Natural Resources lands in Washington State.



Navy aircraft that train in the Northwest and will use the electronic warfare range.

This type of instrumented electronic warfare training has historically been conducted by NAS Whidbey Island aviators, though pieces of it are done in a simulated manner. Squadrons already train in existing military operations area airspace over the lands where the emitters would be placed, as was analyzed in prior Northwest Training Range Complex environmental planning. Adding this equipment to meet specific training requirements, will provide a more realistic training environment and allow the air crews to practice basic skills to detect, identify and locate similar kinds of electronic threats they may encounter when flying into hostile territory. **It also enables them to gain required aircrew qualifications before deployments and perfect skills that saves lives.**

While the Navy uses simulators in many kinds of training, all simulators have limitations. Currently, electronic warfare aircraft crews must commute 400 miles to Mountain Home Air Force Base in Idaho to conduct the specific required, realistic training that the Pacific Northwest EW Range will provide. **Electronic warfare training, using the same types of fixed and mobile emitters, has occurred across the country for decades with no adverse effects to people or the environment.**

## Commonly-found electronic signals used in training

The phrase “electromagnetic radiation” has been used to describe the emitters’ output. Electromagnetic radiation is not the same thing as nuclear radiation. There is no nuclear radiation associated with these electronic emissions. In this case, “radiation” is simply electronic energy, **and the emitters use frequencies similar to those used for satellite communications, some Wi-Fi devices, cordless phones, Bluetooth devices and weather radar systems.**



Partially-completed mobile emitter vehicle.

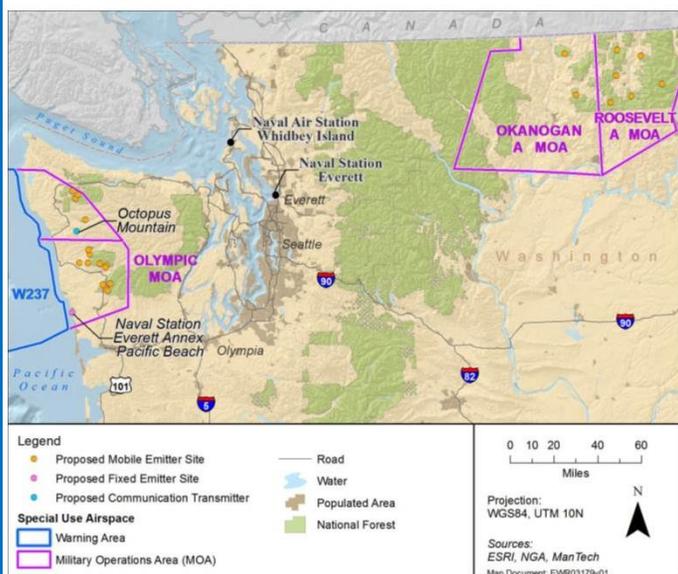
The intensity or power level that will be used for the mobile and fixed emitters are about 90-100 watts, as high output is not needed or desired for this training. For comparison, many of us use 60-100 watt light bulbs at home. This makes the training realistic and challenging for aircrews because they need to detect, identify and locate these specific signals among all the other existing electronic signals produced by everyday items like cell phones, radio and television antennas, weather radar...etc. This specific training is very important because it enables U.S. Navy pilots to learn the initial steps to safely and successfully counter those enemy defenses before they go into harm's way.

## Added protective measures for public and wildlife

Though **there will not be any harm to humans or animals from this equipment and training**, the Navy has added protective measures to even further reduce any potential for humans or animals to be near the equipment when in operation. The emitters, which are at least 14 feet above the ground, put out narrowly-focused, directional electronic signals that will be pointed skyward toward the Pacific Ocean. Set up in this manner, the mobile emitters pose no threat to people or animals below the emitters on the ground. Risk to animals or humans would only occur if they put themselves in the direct path of the signal, above the emitter, and close to the source of the signal for an extended period of time. Additionally, the Navy has implemented a 100-foot safety zone around the vehicles and mandated that crews shut down the emitters if people or animals are within that safety zone when the vehicles are in operation.

These precautions will ensure there is virtually no chance that anyone will come near the vehicles while in operation without the operators knowing it. Our vehicle operators will not have any protective gear on while they are operating the equipment. They are below the emitters and not in the direct path of the signal emission so they are safe, just like other wildlife that may wander through the area on the ground. Birds that fly through the narrowly focused, directional signal beam would not be affected because they would not be spending a lot of time close to the emission source in the path of the signal. The sites at which the vehicles would be positioned have existing pull-outs or turnaround spots for large trucks, and have already been cleared (harvested) or have natural open areas without a lot of trees. The mobile signal emitter vehicles would utilize those open areas and operators will have a good line of sight for humans or wildlife that may wander nearby.

**Training in the airspace using the emitters that make up the EW range will not involve the use of weapons or ‘jamming’ of signals on the ground.**



## Environmental Assessment completed Aug. 2014

Conducting complete basic electronic warfare training near NAS Whidbey Island has long been a priority for the Navy. This training in the airspace of the Olympic military operations areas (MOAs) and the Okanogan and Roosevelt MOAs, including the initial concept for enhanced electronic warfare training, was analyzed in the Northwest Training Range Complex Environmental Impact Statement (EIS), which was completed in 2010. It is being reexamined in the Northwest Training and Testing EIS, which is still in development. When specific information and technology to support this aerial training became available, **the Navy prepared an Environmental Assessment (EA) that was completed in August 2014 and issued a Finding of No Significant Impact (FONSI).** See <http://go.usa.gov/3B4Mk> to see the documents and additional information .

The Navy made a sincere effort to notify the public about the EA, as described in the FONSI. The Navy received no public comments by the August 15 deadline and the Navy’s FONSI was signed on August 28, 2014.

Because the Navy proposes to use roads on U.S. Forest Service and Washington State Department of Natural Resources land, the Navy needs permission from those agencies to do so.

**To reiterate, training conducted on the Pacific Northwest Electronic Warfare Range will not harm people or animals. This very specific training enables U.S. Navy pilots to safely and successfully counter enemy defenses when they go into harm’s way.**