

Climate Costs of Militarizing the Olympic Peninsula

by Karen Sullivan

What happens when the world's largest user of fossil fuels fails to fully disclose its contributions to air pollution, respiratory diseases and climate change? What would you say to the fact that in a draft environmental impact statement (DEIS), the U.S. Navy analyzed the exhaust emissions of only 36 of its 160-jet fleet of EA-18G Growler jets, and that the analysis covered only takeoffs and landings? Emissions from Naval flight operations beyond about six miles from the corners of each runway are not analyzed. Greenhouse gases for takeoffs and landings are listed in the EIS, but are not added up, so if readers want to know the totals, they have to do the math themselves.

In normal flight, a single Growler jet burns about 1,304 gallons of jet fuel per hour. A Growler weighs 33,200 lbs. For comparison, a 737 consumes about 750 gallons per hour and weighs 174,200 lbs. Also, commercial jets do not have afterburners. Each hour of Growler flight without the use of afterburners produces 12.5 metric tons of carbon dioxide. The average per capita emissions for people living in Washington state is about 10.8 metric tons per person *per year*. Thus, **one hour** of normal Growler flight produces 23 percent more CO₂ than a typical Washington state citizen in residential, commercial and industrial activities emits in *one year*.

To give a better idea, **one hour** of Growler flight produces:

- as much CO₂ as a typical car produces driving 29,500 miles;

- as much CO₂ as 656 cars driving 45 miles per hour;

- more CO₂ than 12.7 round trips from Washington state to New York in a Toyota Prius; or

- more CO₂ than that emitted by the generation of electricity sufficient for 7 average hours to meet the needs of 16,300 people.

Jet fuel also contains other toxic chemicals, whether emitted or dumped. When Navy pilots dump raw fuel to lighten their aircraft for landing, as occurs about once a month according to an active duty pilot, that raw fuel does not "disappear," as the Navy claims; while its solvents may evaporate on the way down, the heavy metals and other toxic materials find their way into the water and onto the land.

But the full scope of impacts has never been described. Unlike their Prowler predecessors, Growlers are equipped with afterburners and can fly up to 1,200 mph. According to a Navy pilot, a rule of thumb for bypass turbofan engines, meaning afterburners, is "... it nets about a 50 percent increase in thrust with at least a 500 percent increase in fuel consumption." Estimates of afterburner fuel consumption range from 10,000 to 37,000 gallons per hour. **One hour** of this would produce between 95.8 and 354.7 metric tons of CO₂, or between 8.8 and 32.8 times the average *annual* per capita output in Washington state. Unfortunately, the Navy is increasing its afterburner use dramatically. Touch-and-go flights at Outlying Field Coupeville are slated to increase to 35,000 flights per year, a 1,000 percent increase in seven years. And aerial combat ("dogfighting") will increase from 160 to 550 hours most of it off the West End of the Olympic Peninsula. Yet emissions from 550 hours of dogfighting were not analyzed because the dogfighting isn't part of takeoffs and

landings, and it occurs more than six miles from runways. Therefore, these emissions do not appear to officially exist. Segmenting impacts is unlawful according to the National Environmental Policy Act of 1969 (NEPA). Yet the Navy appears to be segmenting the very air we breathe.

The Navy has admitted in its Draft EIS for Growlers that it cannot guarantee the region's air quality will continue to meet federal (NAAQS) standards, which means our air conceivably could become as polluted as large cities like New York or Chicago. Because the Navy split its impacts analysis from the Growler fleet into seven separate processes, it's impossible to grasp the full scope of effects. They analyze a small subset of effects with each environmental assessment (EA), and conclude each with a Finding of No Significant Impact (FONSI). I asked the Navy if an EA had ever *not* resulted in a FONSI, or if it had ever stopped a process to become a more comprehensive EIS. After researching every EA in the Pacific Northwest region for the last 10 years, the Navy's answer was "No." Its latest 40 jets have recently been purchased and delivered without a public process.

Eight hours of normal flight per Growler will burn 10,432 gallons of jet fuel, not counting afterburner user. Over the span of 260 days at eight hours per day of electronic warfare flight time, as described in the electronic warfare EA, 2.7 million gallons per jet will be burned. This consumption estimate counts the minimum eight and not up to 16 hours of flight time per day, and does not count the projected 35,000 flights practicing takeoffs and landings at Coupeville, for which the government's Aircraft Environmental Support Office estimates 30 minutes per flight as the time needed for afterburners. Oddly, the Navy's DEIS revised this downward to 20 seconds per flight, which makes no sense unless that's *per takeoff*.

Not every Growler will be flying every day, of course, but this is the contribution of eight hours of normal flight per aircraft per day. And these jets do not fly alone. Conservatively, I estimate the annual footprint for a single Growler during normal flight operations, not counting afterburner use in dogfighting or touch-and-go practice, at 26,000 tons of CO₂. With the projected frequency and duration of flight times and number of aircraft, the Navy's Growlers alone could produce annually more than eight million metric tons of CO₂, or 77,000 times the average annual per capita emissions in Washington state. Or, put another way, these Growlers and the other aircraft at Whidbey Island could produce as much CO₂ as the combined average annual emissions of three, 500-watt coal-fired power plants.

If, according to the Congressional Research Service, each of these 160 Growlers has a life span of 10,000 flight hours, then the Pacific Northwest may be subjected to untold billions of metric tons of CO₂ and toxic air pollution. Over the next 20 years we are looking at a grim picture of chronic air and noise pollution, habitat and public health degradation, and major contributions to climate change, from an area that is globally renowned for its World Heritage, Biosphere Reserve, Marine Sanctuary and wilderness values, and its vibrant culture and tourism industry. Instead of what it's been known for in the past, the Pacific Northwest is set to become a major *source* of greenhouse gases and toxic air pollution. And, if the Navy continues to get its way, we will hear about only what's emitted around their runways.