



OREGON AIRSPACE INITIATIVE

Frequently Asked Questions

Q: What is a Military Operations Area (MOA)?

A MOA is a block of airspace where aircraft can perform military training activities (aircraft intercepts, turning and evasive maneuvers, and air combat maneuvers) separated from Instrument Flight Rule (IFR) traffic, including general aviation and commercial/passenger aircraft.

Q: What is Air Traffic Control Assigned Airspace (ATCAA)?

An ATCAA is an airspace area of defined vertical and lateral limits, assigned by Air Traffic Control (ATC) for the purpose of providing air traffic separation between the specified activities being conducted within the assigned airspace and other IFR air traffic. Typically, these blocks of airspace start at Flight Level (FL) 180 or 18,000 feet and, in some cases, are contoured to the dimensions of the MOAs beneath them.

Q: What is a Warning Area (W)?

A Warning Area is airspace of defined dimensions, extending from no closer than three nautical miles outward from the coast of the U.S., which contains activity that may be hazardous to nonparticipating aircraft. The purpose of such warning areas is quite literally to *warn* nonparticipating pilots of the potential danger. A Warning Area may be located over domestic or international waters, or both. The Warning Area located nearest to Oregon is approximately 12 nautical miles from the coast.

Q: How are altitudes measured or specified?

Airspace altitudes are primarily defined in terms of Mean Sea Level (MSL), which is measured from the surface of the ocean. Where the height of the airspace floor above the *ground* is important, the airspace floor can be measured in terms of feet Above Ground Level (AGL). Airspace altitudes starting at 18,000 MSL are defined in terms of "Flight Level" (e.g., FL180).

Q: What role does the Federal Aviation Administration play in the proposal?

The Federal Aviation Administration (FAA) has entered into a Cooperating Agency relationship with the US Air Force/National Guard Bureau (NGB). These two agencies will collaborate to develop the necessary aeronautical proposal and environmental documents to modify these airspaces. The FAA retains administrative authority of the National Airspace System (NAS) and will make the final determination regarding all proposals presented.

Q: Why are dimensions of the existing MOAs deficient for training purposes?

W-570: The latest generation of technologically advanced F-15C employs advanced weaponry and executes tactics that would be more effectively accommodated by airspace with greater vertical and lateral expanses.

Eel ATCAA: Currently, Eel airspace is an ATCAA (FL180 – FL270). This airspace is primarily used for Air-to-Air refueling missions. Its lateral dimensions are partly over land and its vertical dimensions do not permit sufficient altitude to effectively accommodate the full range of F-15C training requirements.

Juniper/Hart MOA Complex: The Juniper/Hart MOA complex is the 173 FW's primary airspace and is often used by the 142 FW as back-up airspace during winter months. Within the past five years, the 173 FW – which is the nation's primary school for F-15 pilots – has increased its assigned aircraft and nearly doubled its student production. More student production, coupled with the general requirement to increase airspace to meet technological advancements, has increased the amount of time the airspace is activated for training. Staggered take-offs to de-conflict missions are currently utilized out of a necessity to ensure



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safety and provide realistic training. Increasing the size of the Juniper/Hart MOA complex would allow more concurrent realistic missions to occur with less airspace activation time, affording other NAS users more flexibility.

Dolphin MOA: Although Dolphin MOA is the 173 FW's primary back-up airspace, the ATCAA above it is capped approximately 20 percent of the time at FL230 due to Air-to-Air Refueling operations conducted in Aerial Refueling (AR) Routes 8A/B, and usage is impacted by coastal weather patterns and supersonic restrictions. While Dolphin MOA adequately accommodates the types of training performed in the Goose MOA, it is three times further from Kingsley Field than Goose MOA and three times further from Portland than the proposed Eel MOA – resources (e.g., fuel) consumed traveling to military airspace subtract directly from resources which could be spent on training in military airspace.

Goose MOA: Goose MOA is an optimum airspace for 1-vs-1 and 2-vs-1 training missions. It is capped at FL230 or FL280 due to consistent tanker refueling operations above it. It is not supersonic and is not optimum for long-range high-altitude missions.

Q: What has changed? Why was the previous airspace sufficient for training, but now it isn't?

- 1) Due to technological advances in the Oregon ANG's assigned aircraft, airspace dimensions need to be expanded to fully capitalize on the capability of F-15C improvements and realistically train against emerging threat capabilities.
- 2) The increase in 173 FW student production and a gradual increase in F-15C flying-hour costs – attributed primarily to higher fuel costs – has combined to make it more challenging for the 142 FW to use Juniper/Hart MOA as back-up airspace. Developing airspace closer to Portland will allow the 142 FW to better focus limited flying-hour resources on training when weather precludes the use of W-570. Additionally, because of the close proximity of W-570 to the 142 FW, decisions to divert training missions to Juniper/Hart due to inclement coastal weather are made as late as possible. Because of FAA airspace scheduling lead-time requirements, the 142 FW schedules both W-570 and Juniper/Hart MOA during the winter to have the flexibility to use W-570 if the weather is acceptable. Establishing overland airspace closer to the 142 FW (i.e., the proposed Redhawk MOA) would eliminate the need to schedule back-up airspace and improve efficiencies for all NAS users.
- 3) In the recent past, the number of F-15Cs assigned to the Oregon ANG has increased by 30 percent.
- 4) Maintenance requirements per flying hour have increased over time for the F-15C. Maximizing the time for maintenance on the aircraft is critical to the long-term sustainability of the weapon system. Closer and expanded airspace provides maintenance crews increased opportunities to work on aircraft.

Q: What happens to the unit's training program if the current airspace is not expanded?

If the Eel and Redhawk MOAs are not established, the 142 FW would not realize the increase in training efficiency the proposal would create and approximately 10 percent of 142 FW flying hours (roughly equivalent to \$7M/year) will continue to be spent traveling to Juniper/Hart when weather precludes the use of W-570

If the Bass ATCAA/W-570 over-water expansion is not established, the 142 FW would not be able to fully implement advances in F-15C technology/tactics.

If Juniper/Hart MOA expansion is not established, the 173 FW will be required to activate airspace for longer periods of time to meet student production timelines, causing impacts to NAS users for a longer



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period. Additionally, time between take-off periods will decrease resulting in less time for maintenance to be performed on the aircraft which can negatively affect the number of mission-ready available aircraft for sustained operations.

Q: What factors influenced the choice of the proposed military operations area shape and location?

Eel MOA mirrors the lateral boundaries of Eel ATCAA, which do not encroach on high altitude airways. The proposed MOA's floor of 11,000 MSL (approximately 7,000 AGL at the point closest to the terrain below) was recommended by the FAA to minimize impact to general aircraft users and would be the same floor as in Dolphin MOA. Eel MOA is within 50 nautical miles of the 142 FW, the Oregon ANG unit located in Portland. If the vertical dimensions are expanded, this would afford excellent back-up airspace for smaller training scenarios.

The proposed Bass ATCAA/W-570 expansion was influenced primarily by F-15C technological/tactical advancements. Expanding W-570 to align with Bass ATCAA affords this capability. The proposed W-570 boundaries mirror existing boundaries of the Bass ATCAA, with no encroachment on high altitude airways.

Proposed Redhawk MOA boundaries were influenced by a desire to accommodate the majority of training missions which can be conducted in W-570 at a location closer to the 142 FW than the Juniper/Hart MOA. Developing back-up airspace closer to the 142 FW would re-direct flying hours for training which are currently spent traveling to and from Juniper/Hart when coastal weather conditions preclude the use of W-570. The location was determined through coordination with the FAA to minimize impacts to commercial and general aviation traffic and to leverage the improved weather conditions which exist east of the Cascade mountain range in winter months.

The proposed Juniper/Hart MOA expansion was influenced primarily by F-15C technological/tactical advancements. Its boundaries were influenced by recommendations from the FAA. For example, expanding eastward posed the least impact to NAS users and is over less densely populated areas. The expansion of Juniper Low MOA boundaries have been carefully considered to reduce potential impacts on wildlife and inhabitants.

Q: What units and what aircraft use the MOAs?

The 142 FW uses W-570 as its primary airspace area. The Juniper/Hart MOA is currently used as back-up airspace when weather precludes the use of W-570. If established, Eel and Redhawk MOAs would replace Juniper/Hart as back-up airspace for the 142 FW.

The 173 FW currently uses the Juniper/Hart and Goose MOAs as its primary airspace areas. Dolphin MOA is back-up airspace for the 173 FW.

Q: How often and when will the MOAs be used?

Generally, fighter training operations require the use of airspace twice a day, Monday-Friday, for up to 30 minutes; however, this can vary due to several factors, such as mission complexity or delays with ATC coordination.

F-15C training missions last an average of 1.2 hours. The time actually spent in the airspace generally does not exceed 30 minutes and can be as low as 15 minutes depending on the type of training.

In the summer months, the 142 FW will primarily use Bass/W-570 and Eel. In the winter months, an equal split between Bass/W-570, Eel, and the Redhawk MOA would be anticipated, depending on coastal weather conditions.



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The eastward expansion area of the Juniper/Hart MOA would likely not be activated for every mission period. If activated, it would likely be for less time than existing Juniper/Hart MOA.

Q: Will there be an increase in the military's usage of the MOAs?

Existing airspace will most likely see a *decrease* in activation periods and activation time as the 142 FW and 173 FW begin using newly established airspace located nearer their home airfields.

Q: How many military aircraft will fly in the MOAs at any one time?

In Bass/W-570, we would continue to fly 4-8 aircraft (no change).

In Eel MOA, we would expect to fly 2-6 aircraft.

In Redhawk MOA, we would expect to fly 2-8 aircraft.

In Juniper/Hart we would continue to fly 8-10 aircraft (no change).

Q: Will aircraft flying in the MOAs carry live bombs?

The F-15C is an Air Superiority fighter and does *not* perform bombing missions for the USAF. This airspace initiative is for air-to-air training only, and training would not include live ordnance.

Q: What effects on noise levels will the proposed action have?

F-15C activities in Redhawk MOA and the Juniper/Hart expansion will create a change in local noise profiles when training missions are taking place. With the exception of the Juniper Low MOA expansion, all aircraft would be at least 5,000 feet AGL, which would reduce noise exposure to levels comparable to commercial jet airline traffic for most mission types. Low altitude operations in Juniper Low MOA would be infrequent as the majority of training would be conducted at higher altitudes and closer to the center of the airspace. The Juniper/Hart expansion would most often be used in order to increase separation between aircraft at the beginning of training scenarios – aircraft typically begin these scenarios at altitudes well above 5,000 feet AGL (typically 20,000-30,000' MSL).

Q: If citizens have noise complaints, how will they know whom to call?

Both the 173 FW and the 142 FW have public websites with an intuitive Noise Complaint link providing information and phone numbers to call.

Q: How does the Air National Guard know that wildlife or livestock won't be impacted from the noise of the low-level flights?

Identified impacts will be vetted through noise modeling conducted as part of the NEPA process and presented in the Draft EIS.

Q: What effect will this action have on commercial aviation in the affected area?

The proposed airspace action has been vetted through meetings with the NW Regional Air Force Representative to the FAA, as well as with the FAA's Seattle, Salt Lake City, and Oakland Air Route Traffic Control Centers (ARTCCs). Any potential impacts will be determined through further coordination with the FAA and as a result of analyses conducted in support of the NEPA process.