



REPLY TO  
ATTENTION OF:

**DEPARTMENT OF THE ARMY**  
JOINT BASE GARRISON  
BOX 339500, MAIL STOP 17  
JOINT BASE LEWIS-MCCHORD, WA 98433-9500

Public Works

Ms. Loree Randall  
Coastal Zone Management Program – Federal Consistency  
Washington Department of Ecology  
P.O. Box 47600  
Olympia, WA 98504-7600

Dear. Ms. Randall:

This letter serves as the Army's Consistency Determination for your review and concurrence, for an Army action proposed to occur in Washington and Oregon. This letter provides information required under the Washington Coastal Zone Management Program, and 15 Code of Federal Regulations 930.39, Content of a Consistency Determination. The Army will undertake the proposed action in a manner consistent to the maximum extent practicable with the enforceable policies of the Washington Coastal Zone Management Program.

The 160<sup>th</sup> Special Operations Aviation Regiment (SOAR) proposes to establish three new helicopter aerial refueling routes; assume administrative control of two existing aerial refueling routes and extend one of these routes; establish a new low-level flight training area; and establish a new multi-mode training route. The routes and the training area would support training operations based out of Joint Base Lewis-McChord (JBLM), Washington, but would be located off-post, in western and central Washington and northwestern and central Oregon (Figure 1). Training operations would be conducted by the 160<sup>th</sup> SOAR, with MH-60 Blackhawk helicopters and MH-47 Chinook helicopters. Aerial refueling operations would also involve Air Force or Marine Corps C-130 Hercules tankers. The 4<sup>th</sup> Battalion of the 160<sup>th</sup> SOAR (4/160<sup>th</sup> SOAR) is expected to begin training in the proposed locations as soon as the appropriate approvals are granted. Additionally, 160<sup>th</sup> SOAR units from other installations would use the training routes/area. The proposed routes would range from 30 to 143 nautical miles (nm)<sup>1</sup> in length, and each route would include an area of airspace extending out 2 to 6 nm from each side of the center line. The routes and training area would be available for use 24 hours a day, 365 days a year, with some restrictions on weekend and holiday use during the summer.

Aerial refueling is the process of transferring fuel from one aircraft to another to extend flight times. This technique is an important component of military operations. The Army has identified four reasons for implementing the proposed training.

**1. Insufficient number of published training routes.** Aerial refueling capability and proficiency are critical to the long-range mission capability of the 160<sup>th</sup> SOAR. After completion of initial qualification training, aircrews require regular post-qualification training to remain proficient in aerial refueling operations. The 160<sup>th</sup> SOAR currently lacks a sufficient number of published training routes (routes published in the Department of Defense Flight Information Publication AP/1B) to accomplish its training

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<sup>1</sup> 100 nautical miles equals 115.1 miles.

requirements. The Army does not have its own tankers, and consequently must rely on the U.S. Marine Corps and U.S. Air Force to supply fuel and tankers for training exercises. The U.S. Marine Corps, which is the 160<sup>th</sup> SOAR's primary aerial refueling asset, has recently adopted a policy of only supplying fuel to published corridors. Available published refueling routes are currently limited to two existing routes over the Pacific Ocean and two existing routes over land in Oregon. To meet training requirements, the 160<sup>th</sup> SOAR would need to use all four routes. However, because of their distance from JBLM (more than 75 nm), the two routes over the Pacific Ocean are too costly to use in terms of fuel consumed per training mission. In addition, the existing routes over land in Oregon require an excessive number of turns to complete all of the tasks required for training evaluations (link-up, hook-up, transfer of fuel, and disconnect). The 160<sup>th</sup> SOAR would like to extend one of these routes so that it is more suitable for meeting training requirements.

**2. Scheduling conflicts and route closures.** Given the number of personnel and aircraft associated with the 160<sup>th</sup> SOAR, and that training routes are used in both directions, multiple routes are needed to avoid scheduling conflicts and provide a sufficient number of training opportunities. Additional routes would allow individual battalions and training units exclusive use of individual routes to avoid scheduling conflicts.

Refueling routes are sometimes closed under adverse weather conditions, further limiting training opportunities. Establishing multiple, geographically diverse routes would allow continued training when one or more routes are closed due to weather.

**3. New terrain-following multi-mode radar route leg.** There is not a suitable published instrument rules (IR) route available to the 160<sup>th</sup> SOAR for conducting training that involves use of radar to maintain a fixed altitude above the ground (Terrain-Following Flight utilizing Multi Mode Radar; TF/MMR). Because proficiency in this technique is a combat need for the 160<sup>th</sup> SOAR, a suitable approved IR route is needed. Furthermore, there is no IR route connecting JBLM to Yakima Training Center (JBLM-YTC). In the absence of such a route, the 160<sup>th</sup> SOAR could be required to cancel missions involving flight to JBLM-YTC under certain weather conditions. The new training route would allow aircraft to fly to and from JBLM-YTC in inclement weather.

**4. Off-post low-level training area.** Opportunities for low-level training by the 160<sup>th</sup> SOAR are limited by available space on JBLM. This type of training conflicts with training activities by other aviation units, which may have priority of usage. An approved low-level training area off JBLM would eliminate training land use conflicts between the 160<sup>th</sup> SOAR and other units training at JBLM.

Table 1 summarizes the locations, by county, of the proposed routes and low-level training area that the 160<sup>th</sup> SOAR would utilize under the Proposed Action. Routes include a 2- to 6-nm buffer on each side of the center line to allow aircraft room to maneuver in response to situations such as weather issues, aircraft deconfliction, turns, and course reversal. These buffers do not apply to the low-level training area. Counties that aircraft could potentially pass through on their way to the identified routes from JBLM are also listed. Only refueling operations would occur along the Washington coast; they are described in detail below.

### **Refueling Operations**

Refueling operations would occur along three new published routes (Routes 1, 2, and 3<sup>2</sup>; Figure 2) and two extended routes (Routes AR304 and AR305; Figure 3). All three new routes would originate over land west of JBLM, and two of them would end over the Pacific Ocean. The existing and extended routes

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<sup>2</sup> Routes 1, 2, and 3 as referenced in this document refer to routes AR370V, ARX371V, and ARX372V, respectively.

would end over inland areas in Oregon. Only the routes within Washington’s coastal zone are discussed below.

**Refuel Route 1** (AR370V) would begin northeast of Olympia, Washington and head west, turning to the northwest when it reaches Highway 101 north of Aberdeen, Washington, and eventually ending over the Pacific Ocean. The length of the route would be 91 nm. Aircraft flying over this route would maintain elevations of 2,500 to 5,000 feet mean sea level (MSL), with a minimum flight altitude of 1,000 feet above ground level (AGL). This route is located approximately 24 nm west of JBLM.

**Refuel Route 2** (ARX371V) would begin in Grays Harbor County, east of Highway 101 and southeast of Aberdeen, Washington and head west, ending over the Pacific Ocean. The length of the route would be 143 nm. Aircraft flying along this route would maintain elevations of 2,300 to 5,000 feet MSL, with a minimum flight altitude of 1,000 feet AGL. This route is approximately 41 nm southwest of JBLM.

**Table 1**  
**Counties<sup>1</sup> Underlying the Proposed Routes and Low-Level Training Area**

|  | <b>Washington</b>  | <b>Oregon</b>   |
|--|--|---|
| <b>Proposed Refuel Route #1</b>  | Grays Harbor, Jefferson, Mason, Thurston (Pierce)                      | --  |
| <b>Proposed Refuel Route #2</b>  | Grays Harbor, Pacific, (Pierce, Thurston)                              | --  |
| <b>Proposed Refuel Route #3</b>  | Grays Harbor, Lewis, Mason, Pacific, Thurston (Pierce)                 | --  |
| <b>Refuel Route AR304</b>  | (Clark, Cowlitz, Lewis, Pierce, Thurston)                              | Clackamas, Lane, Linn, Marion, Washington, Yamhill, (Columbia, Multnomah) |
| <b>Refuel Route AR305</b>  | (Klickitat, Lewis, Pierce, Skamania, Thurston)                         | Deschutes, Jefferson, Wasco, (Hood River, Wasco)                          |
| <b>TF/MMR Route</b>  | Lewis, Pierce, Skamania, Yakima  | --  |
| <b>Low-Level Training Area</b>   | Lewis, Skamania, Yakima (Cowlitz, Klickitat, Pierce, Thurston, Yakima) | --  |
| <sup>1</sup> For training routes, counties underlying the most direct flight path from JBLM to the route are shown in parentheses. For the low-level training area, all counties that aircraft might realistically pass through on their way to the training area have been included in parentheses. |  |   |

**Refuel Route 3** (ARX372V) would begin northwest of Olympia, Washington and head southwest into Pacific County for a distance of 42 nm. Aircraft flying along this route would maintain elevations of 4,000 to 6,000 feet MSL, with a minimum flight altitude of 1,000 feet AGL. The route is approximately 110 nm south of JBLM.

The Army is preparing an Environmental Assessment (EA) and a Biological Assessment to assess the impacts to humans and the natural environment from the proposed action. We have provided a copy of these documents with this letter. The Army requests that the EA be adopted (WAC 197-11-610) by the Department of Ecology to satisfy State Environmental Policy Act (SEPA) requirements. This will also allow the Army to meet the SEPA requirements of the Washington Coastal Zone Management Program.

Refueling operations would comply with the enforceable policies within the six laws identified in the

Washington Coastal Zone Management Program. The proposed project would comply with the Shoreline Management Act (including local shoreline master programs), SEPA (through adoption of the EA), the Clean Water Act, the Clean Air Act, and the Ocean Resource Management Act. The proposed refueling would not be governed by policies of the Energy Facility Site Evaluation Council.

The proposed training would have no impact on existing or proposed land uses in areas regulated under the Shoreline Management Act. Refueling activities in coastal areas would occur at a minimum 1,000 feet AGL, and no aircraft would land during refueling exercises. Use of proposed training routes would be coordinated with appropriate Air Route Traffic Control Centers to avoid airspace use conflicts. The proposed aviation operations would entail safety risks, which include accidents, accidental releases of fuel, and bird aircraft strikes. These risks would be minimized by adhering to safety protocols detailed in Army Regulation 385-95 and avoiding areas of severe bird strike risk. However, refueling operations could create short-duration noise that could annoy noise-sensitive receptors under proposed flight routes.

Use of helicopters and C-130 tankers in the proposed training would generate noise at decibel levels that are likely to cause some annoyance to populations in areas beneath or near routes. Where possible, pilots would “fly friendly” to avoid populated areas. Aircraft noise would also potentially annoy people in non-populated areas that are used for recreation.

The greatest potential noise impacts along aerial refueling routes would be noise generated by C-130 tankers. At altitudes of 1,000 feet AGL, which is the lowest altitude at which refueling would occur, C-130s would generate maximum noise levels of 85 A-weighted decibels (dBA). At this altitude, helicopters would generate maximum noise levels of up to 83 dBA. The noise levels would be highly disturbing to about 20 percent of the population. However, helicopters and C-130 aircraft would pass quickly over potential noise receptors, so impacts from noise would occur for only a short duration.

The proposed training activity would have a negligible impact on water and air quality as regulated under the Clean Water and Clean Air acts. Although wetlands and surface water bodies (including the Pacific Ocean) lie beneath the proposed training routes, most of the proposed activities would have no effect on these resources, since they would take place in the air at altitudes of 1,000 feet and above. An accidental release of fuel during fuel transfer is possible, though unlikely, along refueling routes. Such an occurrence has only happened three times since 1972 on all SOAR routes worldwide, and the maximum amount of fuel that could reach water resources would be less than 1 milliliter of fuel per square meter of surface area (land or water). Therefore, significant effects to water quality are not anticipated.

Since the total number of aircraft flight hours would not change from baseline levels, air quality impacts would be limited to redistribution of some annual aircraft emissions from JBLM to the proposed routes in the project area. Emission increases in off-post areas would not exceed conformity thresholds. Additionally, use of fuel would not increase from baseline levels.

The potential for releases of fuel spills during training would present minimal risks to vegetation, aquatic habitats and species, and wildlife within the project area. Based on the SOAR’s history of spills and the small quantity of fuel that would reach the ground or habitats used by wildlife, significant impacts are not anticipated. Other potential effects to biological resources would include noise disturbances to wildlife and possibly fish. Based on the infrequency of the training and the limited duration of the aircraft noise, these effects would not be significant, provided mitigation for protecting listed species was implemented.

Wildlife listed under the Endangered Species Act that potentially occur in coastal and marine areas beneath refueling routes or approaches include birds, reptiles, and marine mammals. A Biological Assessment prepared for the Proposed Action determined that the proposed project may affect, but is

unlikely to adversely affect listed sea turtles, whales, marbled murrelets, western snowy plovers, or Steller sea lions. Minor effects to these species are possible, primarily noise disturbance from aircraft overflights.

Flights would avoid state and federal wildlife refuges and other areas where large numbers of wildlife concentrate, including seabird colonies in coastal National Wildlife Refuges/Sanctuaries, and seal, otter, and sea turtle haul-out and resting areas.

Impacts to aesthetics would be limited to visual intrusions of aircraft, which would be most noticeable in back-country areas with scenic views. These impacts would be infrequent and of short duration, and would not entail any permanent alteration of the visual environment. Light and glare impacts are not anticipated.

Aircraft noise would not be loud enough to cause structural damage to historic structures, and at the proposed frequency of training would not alter the setting, feeling, or historic association of historic properties. The Army would continue to consult with the tribes to ensure that the Proposed Action would not significantly affect traditional cultural properties. Since minority and low income populations, and sites frequently occupied by children, do not occur disproportionately beneath training routes and/or approaches, and no substantial environmental or health impacts would be associated with the Proposed Action, disproportionate adverse effects to these populations would not occur.

To minimize potential impacts from proposed refueling activities, the Army would implement the following Best Management Practices and mitigation:

- To prevent damage to the refueling hose during fuel transfer, and other accidents, follow procedures outlined in Army Regulation 385-95, which identifies steps and processes to identify training hazards and prevent them from occurring.
- Wherever possible, follow guidance in FAA Advisory Circular 91-36D, which recommends that pilots maintain a minimum altitude of 2,000 feet AGL when flying over noise sensitive areas, such as National Wildlife Refuges and other areas where a quiet setting is a generally recognized feature or attribute of the land.
- Follow Olympic Coast National Marine Sanctuary regulations, which restrict motorized aircraft flights below 2,000 feet within 1 nm of Flattery Rocks, Quillayute Needles, or Copalis National Wildlife Refuges, or within 1 nm seaward from the coastal boundary of the sanctuary.
- Follow FAA provisions to schedule and coordinate all training flights with the appropriate Air Route Traffic Control Center.
- Have one pilot stay focused outside of the aircraft at all times, which will help avoid bird strikes.
- When approaching refueling routes, avoid areas associated with National Wildlife Refuges where the bird strike risk has been classified as severe.
- Continue to consult with tribes that have expressed concerns about the potential impacts of the proposed training on traditional cultural properties.
- Follow the Fly Friendly Program, which entails flying to and from training routes at a minimum elevation of 500 feet AGL, and avoiding populated areas and other noise sensitive receptors.

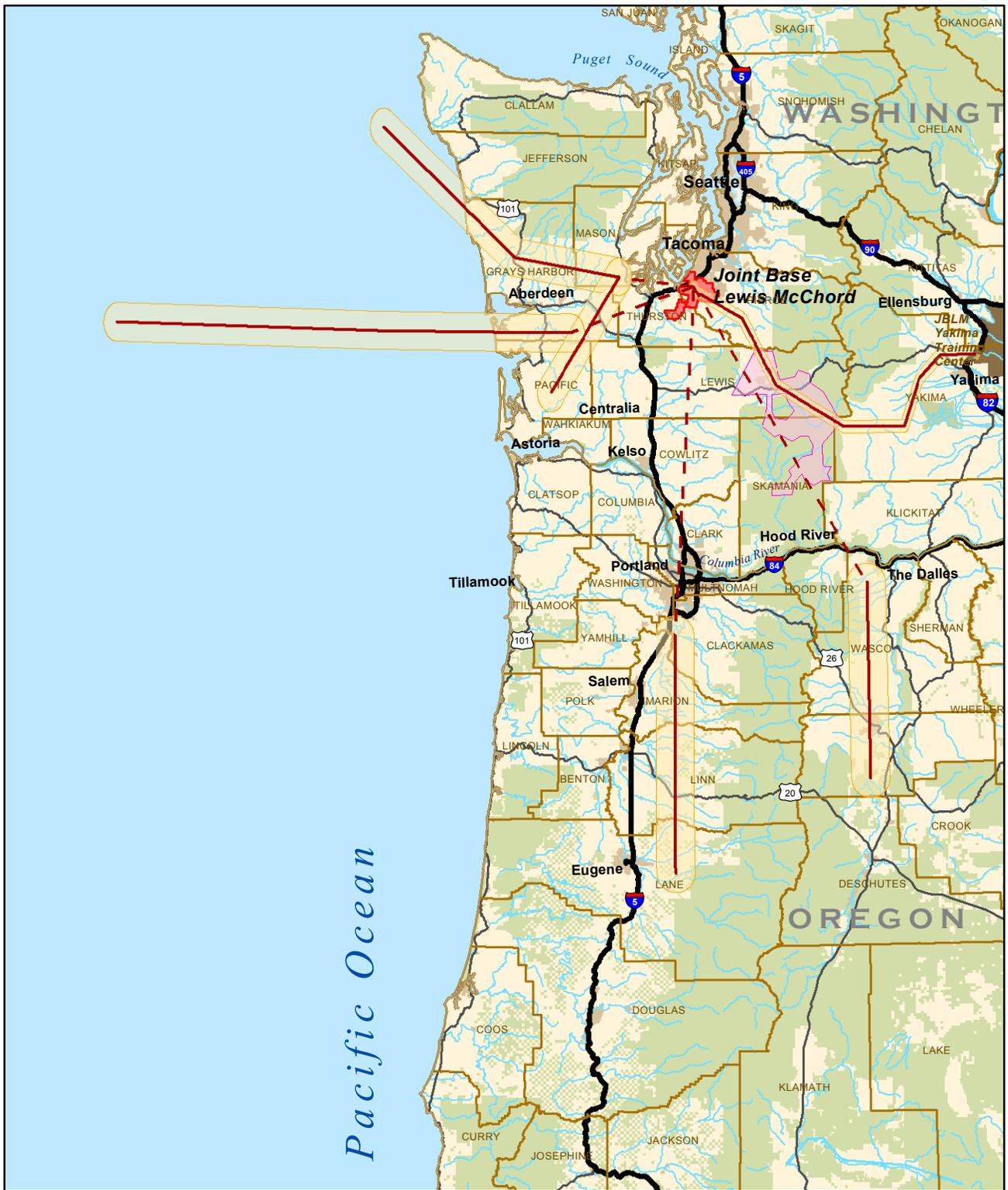
Based on a review of the policies and goals established by the Coastal Zone Management Program, the proposed activities are determined to be consistent with the program. We request your concurrence with this determination in order that the proposed Army project may proceed. If you have any questions, please contact Mr. Bill Van Hoesen, JBLM NEPA Program Manager, at (253) 966-1780 or [bill.vanhoesen@us.army.mil](mailto:bill.vanhoesen@us.army.mil). Thank you for your assistance in this matter.

Sincerely,

Paul T. Steucke, Jr.  
Chief, Environmental Division

#### LIST OF ACRONYMS

|          |   |
|----------|---|
| AGL      | Above Ground Level                              |
| dBA      | A-weighted decibels                             |
| EA       | Environmental Assessment                        |
| IR       | Instrument Rules                                |
| JBLM     | Joint Base Lewis-McChord                        |
| JBLM-YTC | Yakima Training Center                          |
| MSL      | Mean Sea Level                                  |
| nm       | nautical miles                                  |
| SEPA     | State Environmental Policy Act                  |
| SOAR     | Special Operations Aviation Regiment            |
| TF/MMR   | Terrain-Following Flight using Multi-Mode Radar |

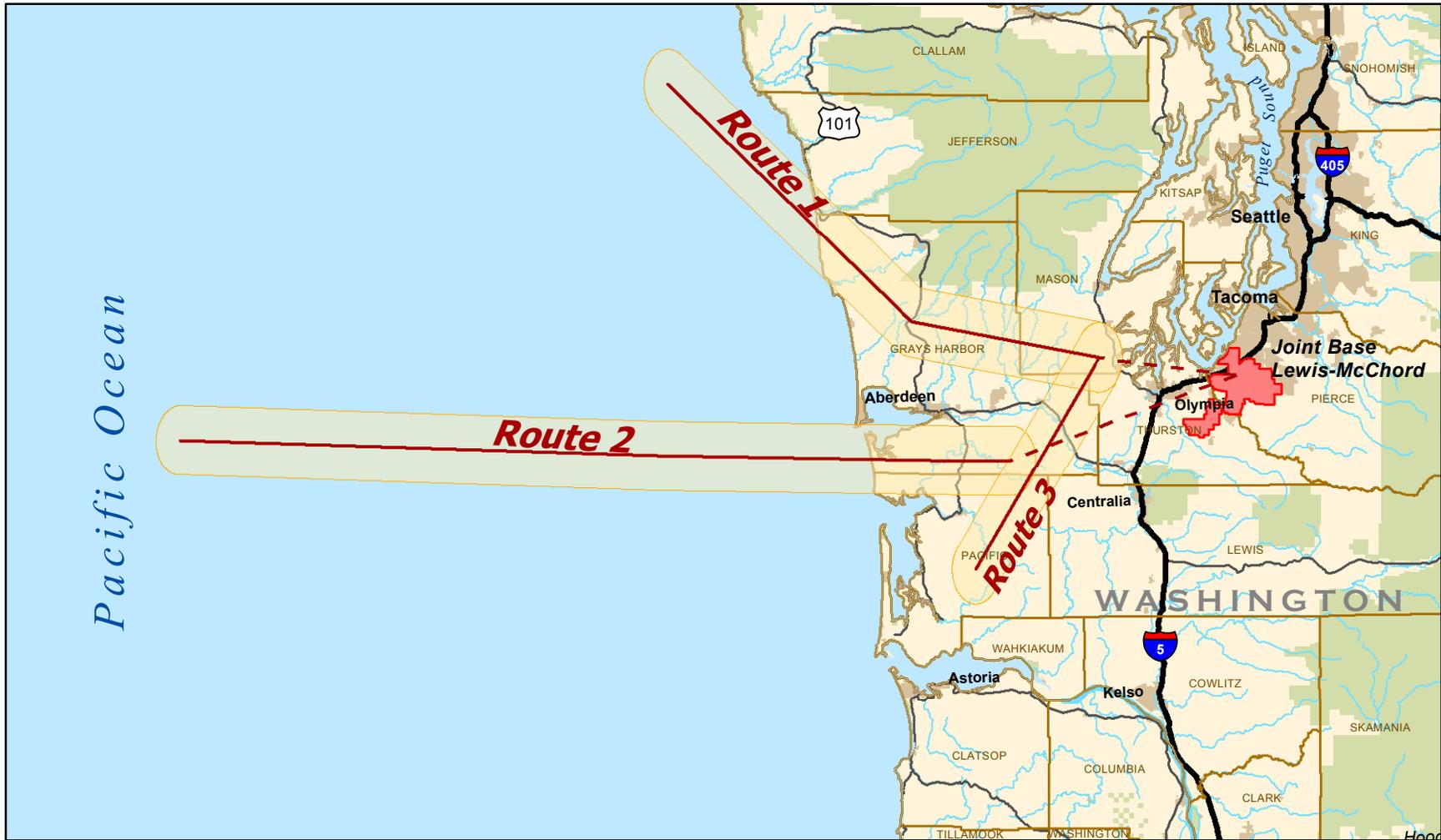


**Figure 1. Project Location**

- |   |   |   |
|---|---|---|
|  Possible Route Approaches             |  Counties        |  Interstate Highways |
|  Existing and Proposed Training Routes |  Populated Areas |  U.S. Highways       |
|  Route Buffers/Airspace                |  Public Lands    |  Rivers & Streams    |
|  Proposed Low-Level Training Area      |   |   |

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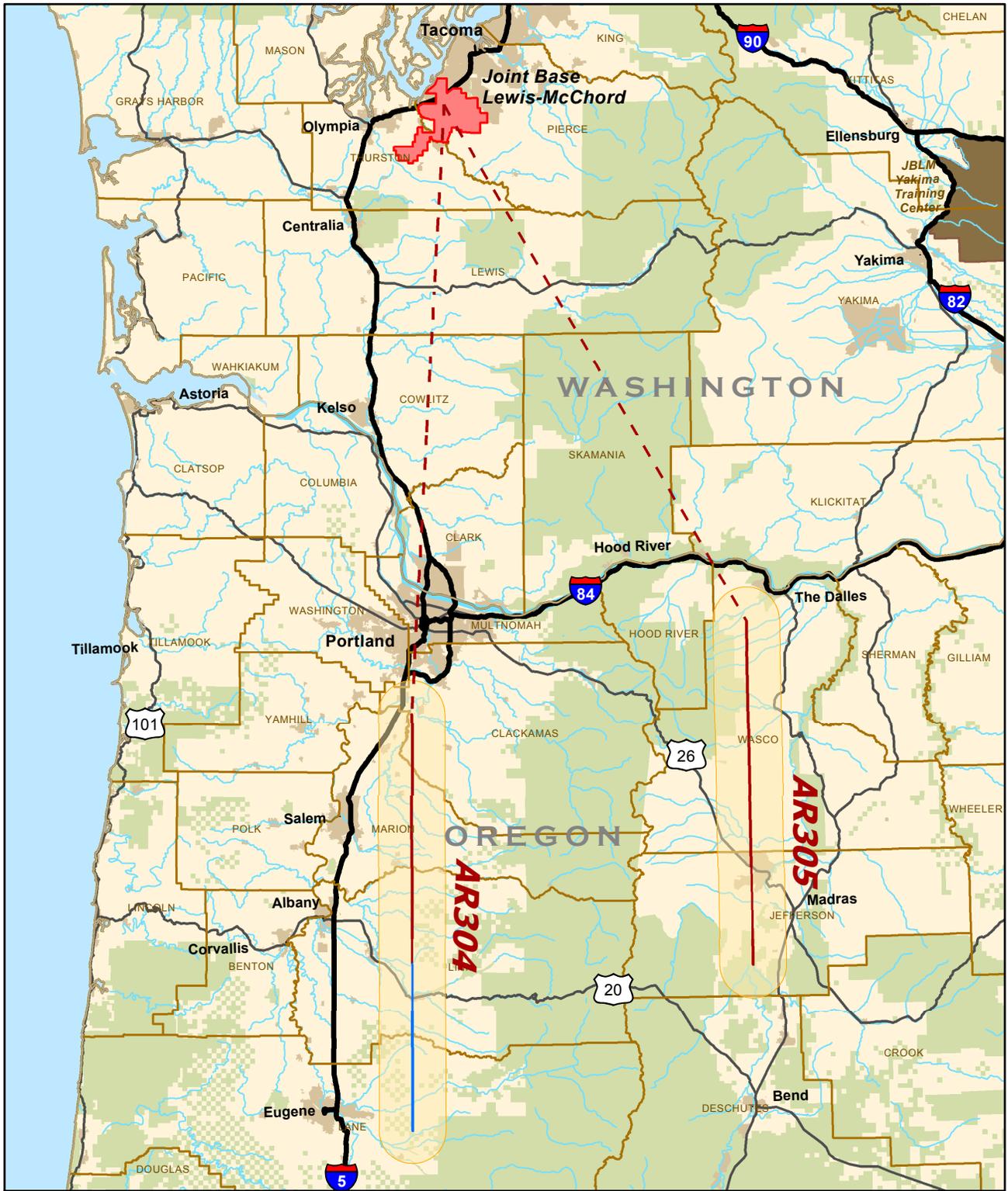


**Figure 2. Proposed Aerial Refueling Routes 1, 2, and 3**

- |  |   |   |
|--|---|---|
|  Possible Route Approaches        |  Counties        |  Interstate Highways |
|  Proposed Aerial Refueling Routes |  Public Lands    |  U.S. Highways       |
|  Route Buffers                    |  Populated Areas |  Rivers & Streams    |

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**Figure 3. Proposed Aerial Refueling Routes AR304 and AR305**

- |   |   |   |
|---|---|---|
|  Possible Route Approaches |  Counties        |  Interstate Highways |
|  Existing Refueling Routes |  Public Lands    |  U.S. Highways       |
|  Proposed Route Extensions |  Populated Areas |  Rivers & Streams    |
|  Route Buffers             |   |   |

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