Department of the Army

Joint Base Lewis-McChord, Washington

SCOPING DOCUMENT

Northwest Aviation Operations
Off-base Helicopter Training Areas
Joint Base Lewis-McChord, Washington

September 2015

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LIST OF ACRONYMS

AGL	above ground level
BMP	best management practice
CAB	Combat Aviation Brigade
CCDR	Combatant Commander
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CONUS	Contiguous United States
DoD	Department of Defense
EA	Environmental Assessment
EIS	Environmental Impact Statements
EO	Executive Order
FAA	Federal Aviation Administration
FNSI	Finding of No Significant Impact
FORSCOM	US Army Forces Command
HAMET	High-Altitude Mountain Environmental Training
HLZ	Helicopter Landing Zone
HTA	Helicopter Training Area
IFR	Instrument Flight Rules
JBLM	Joint Base Lewis-McChord
MOA	Military Operations Area
MTA	Mountain Training Area
MTR	Military Training Route
NEPA	National Environmental Policy Act
NGO	Non-Governmental Organization
NM	nautical mile
NOA	Notice of Availability
SOP	Standing Operating Procedure
VFR	Visual Flight Rules
VMC	Visual-Meteorological Conditions
VR	Visual Route
YTC	Yakima Training Center

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1.0 INTRODUCTION

The Aviation Division within the Directorate of Plans, Training, Mobilization, and Security at Joint Base Lewis-McChord (JBLM) proposes to establish three off-base helicopter training areas (HTAs) and one mountain training area (MTA) (Figure 1-1). The U.S. Army is the lead Federal agency for compliance with the National Environmental Policy Act (NEPA) per compliance requirements of the Council on Environmental Quality (CEQ) regulations implementing NEPA at 40 Code of Federal Regulations (CFR) Part 1500-1508 as well as Army NEPA implementing regulations at 32 CFR 651. The proposed training areas would support training operations stationed out of JBLM, but would be located off-base within Washington State. Training operations would be conducted using aircraft to include the MH/UH-60 Black Hawk, AH-64 Apache, and MH/CH-47 Chinook. The training areas would be available for use day and night, 24 hours a day, 365 days a year, with the exception of Federal holidays.

Under NEPA regulations (40 CFR Part 1500-1508) and the Army NEPA implementing regulation at 32 CFR 651, the Army must conduct an environmental impact analysis to inform decision-makers and the public of the potential environmental consequences of proposed Army actions. The Army intends to prepare an Environmental Assessment (EA) that evaluates the potential effects of the proposed aviation operations in Washington.

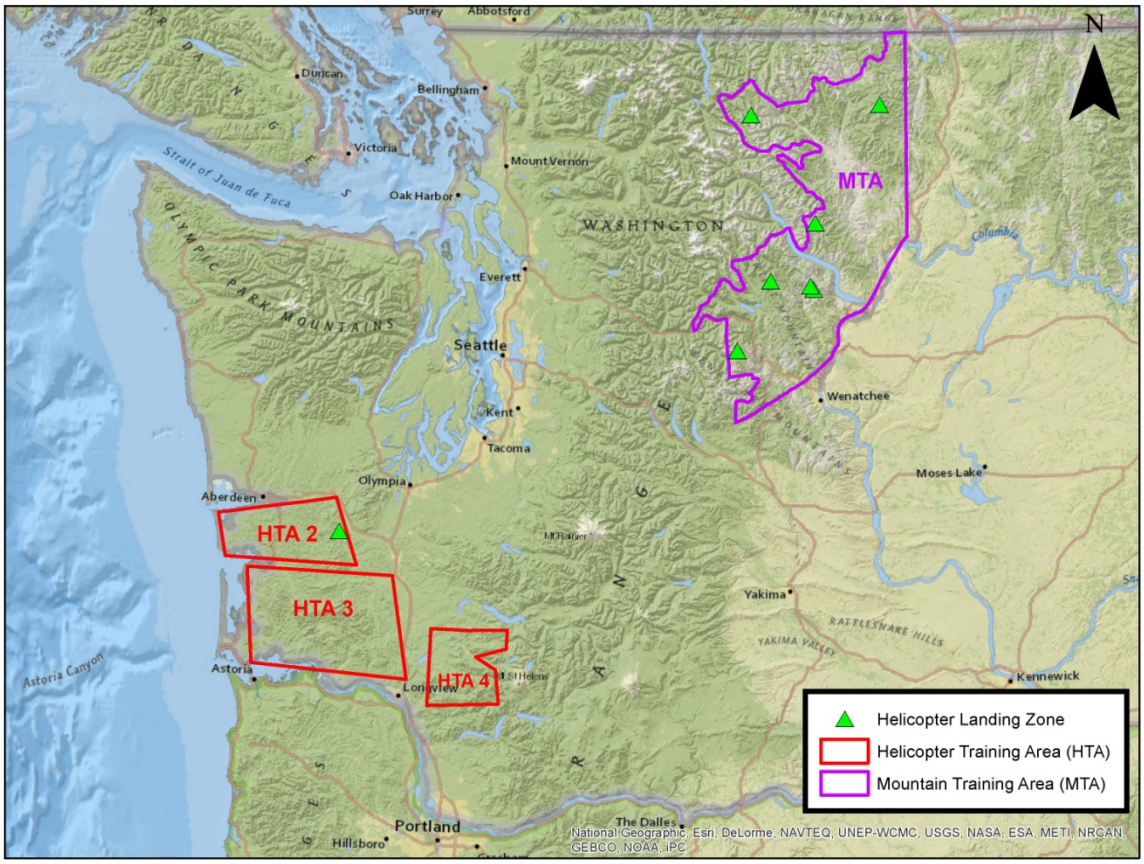


Figure 1-1. General Location Map of Proposed Training Areas

2.0 SCOPING

This scoping document (SD) is intended to provide the interested parties the proposed scope of the EA and to seek additional information pertinent to this analysis. This document contains: (1) request for comments and information, (2) the purpose and need for the proposed action, (3) a description of the proposed action and alternatives, (4) schedule for the development of the EA, and (5) proposed EA outline.

2.1 Purpose of Scoping

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with a proposed action. According to NEPA, the process should be conducted early in the planning stage of the project. The purposes of the scoping process are as follows:

- invite participation of federal, state and local resource agencies, Indian tribes, non-governmental organizations (NGOs), and the public to identify significant issues related to the proposed project;
- determine the resource issues, depth of analysis, and significance of issues to be addressed in the EA;
- identify how the project would or would not contribute to cumulative effects in the project area;
- identify reasonable alternatives to the proposed action that should be evaluated in the EA;
- solicit, from participants, available information on the resources at issue; and
- determine the resource areas and potential issues that do not require detailed analysis during review of the project.

2.2 Scoping Comments

During the scoping process, the Army requests federal, state, and local resource agencies, Indian tribes, NGOs, and the public to forward any information that would assist us in conducting an accurate and thorough analysis of the project-specific and cumulative effects associated with the proposed project. The types of information requested include, but are not limited to:

- information, quantitative data, or professional opinions that may help define the geographic and temporal scope of the analysis (both site-specific and cumulative effects), and that helps identify significant environmental issues;

- identification of, and information from, any other EA, Environmental Impact Statement (EIS), or similar environmental study (previous, on-going, or planned) relevant to the proposed project;

- existing information and any data that would help to describe the past and present actions and effects of the proposed project and other developmental activities on environmental and socioeconomic resources;

- information that would help characterize the existing environmental conditions and habitats;

- the identification of any federal, state, or local resource plans, and any future project proposals in the affected resource area (e.g., military training proposals, recreation areas, timber harvest activities, or development proposals) along with any implementation schedules;

- documentation that the proposed project would or would not contribute to cumulative adverse or beneficial effects on any resources. Documentation can include, but need not be limited to, how the project would interact with other projects in the area and other developmental activities; study results; resource management policies; and reports from federal and state agencies, local agencies, Indian tribes, NGOs, and the public; and

- documentation showing why any resources should be excluded from further study or consideration.

The requested information and comments on this SD may be transmitted via e-mail or standard mail. All comments must clearly identify the following on the first page: JBLM Off-base Helicopter Training Areas. You must include your name and contact information at the end of your comments. The scoping period has been extended through November 3, 2015.
COMMENTS MUST BE RECEIVED BY NOVEMBER 3, 2015.

Comments submitted electronically should be submitted via email to:
usarmy.jblm.imcom.list.dpw-eis@mail.mil

Hard copy comments should be mailed to the following address:
DEPARTMENT OF THE ARMY
DIRECTORATE OF PUBLIC WORKS
ATTN ENVIRONMENTAL DIVISION (NEPA)
2012 LIGGETT AVE, BOX 339500 MS 17
JOINT BASE LEWIS-MCCHORD WA 98433-9500

3.0 PURPOSE AND NEED FOR THE ACTION

3.1 Purpose of the Proposed Action

The *purpose* of the proposed action is for the Army to conduct the necessary type, level, and duration of aircraft movements through the National Airspace System, so aircrews can attain and maintain flying proficiency and be ready for immediate deployment world-wide in support of the National Defense Mission.

3.1.1 High Altitude Training Operations

The proposed high altitude training area would provide JBLM aviation units with mandatory high-altitude flight operations training, while recognizing Army environmental and social stewardship responsibilities within the affected region.

3.1.2 Low Level Training Operations

The proposed low-level training areas would provide JBLM aviation units with low-level training areas off JBLM to eliminate training conflicts between JBLM aviation units and other units training at JBLM.

3.2 Need for the Proposed Action

The following sections identify the *need* for the proposed action. JBLM on-base training areas are currently limited due to a reduction in density as a result of 2011 regulation changes (JBLM Regulation 95-1, See Section 3.4 below) and scheduling conflicts with other units, particularly ground-based operations for low-level flight operations. High Altitude Mountainous Environment Training (HAMET) is currently limited to a select number of sites in the contiguous United States (CONUS) which all require extensive travel time, scheduling difficulties and cost.

3.2.1 High Altitude Training Operations

It is vitally important to conduct High-Altitude Mountain Environmental Training (HAMET) in order to prepare Army aircrews. This training is critical to save the lives of aviators and the Soldiers they transport. The need for well-prepared aviation brigades to conduct combat operations in Afghanistan led the US Army Forces Command (FORSCOM) to prioritize the development of standardized training for high-altitude (up to 14,000 ft [4,267 m]) mountainous conditions. HAMET was developed to ready pilots for success in combat operations. HAMET adapts the National Guard's school for individual mountain helicopter training taught in Gypsum, Colorado.

High altitudes and mountainous terrain pose several challenges to Army helicopter pilots. High altitudes are associated with high wind, high-density altitude (i.e. pressure altitude that is corrected for temperature and humidity), turbulence and atmospheric instability. These factors greatly affect the performance of a helicopter engine and the handling characteristics of an aircraft. For example, an increased density altitude decreases the effectiveness of the rotor blades in providing both overall lift and thrust power to the tail rotor for directional control (i.e. increasing density altitude increases "drag"). Thus, an increased angle of attack and increased

power are required to offset the increased drag. Simultaneously, the engine is less capable of producing power in the thinner air of higher altitudes, and the higher the altitude, the greater these effects have on the aircraft. As such it is imperative that pilots master performance planning, power management, and high-altitude flight techniques to compensate for decreased aircraft performance in high-altitude, mountainous environments.

3.2.2 Low Level Training Operations

Opportunities for low-level training by JBLM aviation units are limited by the available on-base airspace. JBLM aviation regulations were changed in 2011 to reduce the allowable aircraft density in the training areas (JBLM Regulation 95-1, See Section 3.4 below). In addition, low-level training conflicts with training activities by other units, including ground-based activities by Brigade Combat Teams, who are given priority of usage. Due to the limited airspace and the density of indirect fire weapon systems, JBLM requires dedicated off-base HTAs which would allow all assigned units and missions to meet the Aircrew Training Program requirements for Full Spectrum day and night training. Approved low-level training areas off-base would alleviate land-use conflicts that are occurring now and to allow for future growth of the crews training at JBLM.

3.3 Scope of Analysis

The EA would analyze the potential environmental effects of two alternatives: the Proposed Action and a No-Action Alternative. The EA would analyze direct effects (those caused by the action and occurring at the same time and place) and indirect effects (those cause by the action and occurring later in time or farther removed in distance, but that are still reasonably foreseeable). The potential for cumulative effects (effects resulting from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions) would also be addressed, and mitigation measures to avoid, minimize, rectify, reduce, or compensate for impacts would be identified, where appropriate.

3.3.1 Existing Off-Base Military Airspace

Military Operations Areas (MOAs) and off-base military training routes (MTRs) exist within the proposed training areas. A MOA is defined by the FAA as airspace designated outside of Class A airspace, to separate military activities from instrument flight rules (IFR) traffic and identify visual flight rules (VFR) traffic where these activities are conducted (FAA 2014). The purpose of a MOA is to contain military flight activities, although the airspace remains in joint use for VFR aircraft as well as IFR aircraft which may be routed through the airspace. The Okanogan MOA is located in north central Washington, bounded by the US-Canadian border to the north, 48 degrees north latitude to the south, 119 degrees west longitude to the east and 121 degrees west longitude to the west. The floor of the MOA originates at 2000 feet above ground level (AGL).

A Visual Route (VR) MTR exists within one of the proposed HTAs. VR 331 originates at McChord Field Airfield for C-17 Globemaster III and C-130 Hercules aircraft. The route through the

proposed HTA is 4 nautical miles (NM) on either side of the centerline. The MTR includes terrain following operations of 300 feet AGL only in visual meteorological conditions (VMC).

While the footprint of the MOA overlaps with the proposed training area, the MOA is located at an altitude that is generally higher than the proposed training would occur. The MTR usage would overlap with the proposed training. The MOA and the MTAs have been analyzed individually. The EA would only look at any cumulative impacts from the addition of the proposed training.

3.3.2 Public Airports

Public airports exist within and adjacent to the proposed training areas (Table 3-1). The locations of proposed training areas were selected in part, based on proximity to JBLM due to flight time and fuel needs. Typically, training missions would be expected to be completed without the need for refueling. However, infrequent refueling or emergency landings could occur at these public airports. These airports are outside of the scope of analysis that would be included in the EA.

Table 3-1. Public Airports Within or Adjacent to Proposed Training Areas

Airport Name	**City**
Anderson Field Airport	Brewster
Bowerman Airport	Hoquiam
Cashmere-Dryden Airport	Cashmere
Chehalis-Centralia Airport	Chehalis
Dorothy Scott Municipal	Oroville
Ed Carlson Memorial Field - South Lewis Co Airport	Toledo
Elma Municipal Airport	Elma
Lake Chelan Airport	Chelan
Lake Wenatchee State Airport	Leavenworth
Lost River Resort Airport	Mazama
Methow Valley State Airport	Winthrop
Ocean Shores Municipal Airport	Ocean Shores
Okanogan Legion Airport	Okanogan
Omak Airport	Omak
Pangborn Memorial Airport	Wenatchee
Port of Ilwaco	Ilwaco
Southwest Washington Regional Airport	Kelso
Tonasket Municipal Airport	Tonasket
Twisp Municipal Airport	Twisp
Waterville Airport	Waterville
Westport Airport	Westport
Willapa Harbor Airport	Raymond

3.4 Relationship to Statutes, Regulations, and Policies

The intent of the EA is to comply with NEPA by assessing the potential impacts of off-base aviation operations on resources in Washington State. Additional guidance for NEPA compliance and for assessing impacts is provided in the CEQ *Regulations for Implementing the Procedural Provisions of NEPA* (40 CFR Parts 1500-1508), and *Environmental Effects of Army Actions* (32 CFR Part 651).

Army decisions that affect environmental resources and conditions also occur within the framework of numerous laws, regulations and Executive Orders (EOs). Some of these authorities prescribe standards for compliance; others require specified planning and management actions, the use of which is designed to protect environmental values potentially affected by proposed training operations. Laws and related regulations bearing on the proposed Army actions include, but are not limited to, the Clean Air Act; Clean Water Act; Coastal Zone Management Act; Endangered Species Act; Migratory Bird Treaty Act; Marine Mammal Protection Act; National Historic Preservation Act; Noise Control Act; and Pollution Prevention Act.

EOs bearing on proposed Army actions include EO 11990 (*Protection of Wetlands*), EO 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*), EO 13007 (*Sacred Indian Sites*), EO 13045 (*Protection of Children from Environmental Health Risks and Safety Risks*), and EO 13186 (*Responsibilities of Federal Agencies to Protect Migratory Birds*).

Army actions are also governed by DOD, Army and JBLM regulations, including the following:

- Army Regulation 200-1 (*Environmental Quality – Environmental Protection and Enhancement*; December 13, 2007)
- JBLM Regulation 200-1 (*Environmental Protection and Enhancement*; November 1, 2004)
- Army Regulation 385-10 (*Army Safety Program*; August 23, 2007); Department of the Army Pamphlet 385-90 (*Army Aviation Accident Prevention Program*; August 28, 2007)
- JBLM Regulation 95-1 (*Aviation – Flight Regulations*; December 18, 2012)
- Army Regulation 95-1 (*Flight Regulations*; November 12, 2008)
- Fort Lewis Regulation 350-30 (*Fort Lewis Range Regulations*; March 29, 2000; Change 1 November 23, 2005)
- Fort Lewis Regulation 360-5 (*Army Public Affairs – Fort Lewis Noise and Vibration Complaint Procedure*; March 13, 1998)
- Fort Lewis Regulation 420-5 (*Procedures for the Protection of State and Federally Listed Threatened, Endangered, Candidate Species, Species of Concern, and Designated Critical Habitat;* August 9, 2004)

JBLM Regulation 95-1 prescribes the procedures used by aircrews to execute flying operations. The document states crew requirements and responsibilities, the management of air and land space (aviation training areas, corridors, and routes) and flight restrictions. It provides the structure for aviation operations at JBLM in order to provide safe and efficient operations and maximize the utility of the space available for training. The regulation is required to be reviewed, and if required, updated annually to ensure it accurately addresses the requirements of local Commanders, Federal Regulations, and technology. The proponent for the regulation is the JBLM Aviation Division Chief as approved by the Joint Base Commander. Following completion of the environmental analysis and public review process, the regulation would be revised to reflect the selected alternative.

4.0 PROPOSED ALTERNATIVES TO BE CONSIDERED

Alternatives considered under NEPA must include the proposed action (Proposed Preferred Alternative), and the No-Action alternative. The No Action alternative is included as a means of comparison to the action alternative to help distinguish the relative merits and disadvantages between alternatives. In order for any alternative to be acceptable for consideration it must meet the purpose and need for action. Pursuant to Army Regulation 32 CFR 651, *Environmental Analysis of Army Actions*, the selected alternative must meet the project purpose and need and it should be environmentally acceptable, to the extent possible.

The Army used detailed initial screening and evaluation criteria to select the proposed training areas. Initial site identification included map based analysis followed by ground-truth site visits. Screening criteria (Table 4-1) was used to identify a list of preliminary HTAs and MTAs. Four HTAs and three MTAs were identified that met the screening criteria thresholds. Training area size was identified as the primary criterion based on the size requirements for specific mission essential tasks. Mission Essential Task List (METL) area requirements include but are not limited to a 3 km radius for landing area reconnaissance, a 5 km radius for evasive maneuvers, and a 10 km radius for firing techniques (includes simulation of target acquisition and instrumentation prior to firing), team employment, close combat attack and combat maneuvering flight. Evaluation criteria (Table 4-2) were used to refine the polygons for each of the proposed training areas.

Table 4-1. Screening Criteria

Size of Proposed HTA	20-40 Kilometer (KM) routes in each HTA
Distance from JBLM	20 minutes flight time from JBLM
Environmental Feasibility	Least amount of threatened/endangered species or habitat preferred
Land Availability	State or Federally owned land preferred
Presence of Suitable Terrain	Valley, ridge, hill, spur, and draw preferred
Terrain to Facilitate HLZ Operations	Open area less than 15 degrees of slope sized for H-60/H-64 (H-47 preferred)

Table 4-2. Evaluation Criteria

Terrain Relief within HTA Boundaries	Higher amount of terrain features preferred
Number of Land Owners	Fewer is preferred
Density of Livestock	Lower density is preferred
Airspace Analysis	Fewer public airports preferred
Flight Hazards	Fewer towers and logging operations preferred
Number of Developed Areas within HTA Boundaries	Fewer is preferred

4.1 Alternative 1: No-Action Alternative

Analysis of the No-Action Alternative is required by the CEQ (40 CFR Part 1500-1508) and Army NEPA-implementing regulations (32 CFR 651). The No-Action Alternative serves as the baseline condition for analysis of other alternatives. Under the No-Action Alternative, JBLM aviation units would not conduct off-base high-altitude training or low-level training operations in Washington. Training activities by JBLM aviation units would be limited to JBLM property and JBLM-Yakima Training Center (YTC).

Based on distance from JBLM, YTC is not close enough to allow it to be a reasonable primary training area. The fastest en route time for a UH-60 (Black Hawk) is 65 minutes and 130 minutes round trip. Inclement weather restricts the number of days aircraft can travel to YTC.

No local high-altitude training would occur as there are no on-base training areas at JBLM which meet the elevation criteria. Aircrews would continue to be shipped to Colorado for short training periods. These trips are expensive and can often be unavailable as Colorado provides one of the few available HAMET training sites in the U.S. and is in high demand. Low-level training would continue to conflict with training activities by other units, including ground-based activities by Brigade Combat Teams, who are given priority of usage. Therefore, the No-Action Alternative does not meet the purpose and need for the proposed action.

4.2 Alternative 2: Three HTAs and One MTA (Agency Proposed Preferred Alternative)

Under the Proposed Action, the Army would publish three new HTAs west and southwest of JBLM (Figure 4-1) and establish a new MTA northeast of JBLM (Figure 4-2). These areas and the associated training activities are described in detail below (Sections 4.2.1 and 4.2.2). The HTAs and the MTA would be located in Washington, mostly within state and federal lands. The areas would be irregularly-shaped polygons. Aircraft traveling to and from the proposed training areas would not follow a set flight path. Flight paths to each training area could vary depending on weather and other factors. Aircraft would fly to and from the proposed training areas at elevations of 500 feet AGL and higher, avoiding bad weather and populated areas and following Federal Aviation Administration (FAA) regulations for helicopters. Under the Fly Friendly Program, pilots flying to and from military training areas maintain this minimum elevation and avoid anything on the landscape that might produce any sort of a noise complaint. Therefore,

during "friendly flying," populated areas and other noise-sensitive receptors would be avoided. Table 4-3 provides maximum noise levels at specified distances for the aircraft utilized in the training areas.

Table 4-3. Maximum Noise Levels of Rotary Wing Aircraft (CHPPM 2009).

Distance (feet)	Maximum Level, dBA		
	AH-64	MH/CH-47	MH/UH-60
100	98	98	94
200	92	92	88
500	83	84	80
1,000	77	78	73
1,500	73	74	69
2,000	70	71	66
2,500	67	68	63

The HTAs and the MTA, including the proposed landing zones within these areas, would be available for use day and night, 24 hours a day, 365 days a year, with the exception of Federal holidays. Use of the HTAs, MTA, and landing zones would occur throughout the year, as weather permits. The majority of training would occur at night. As a result, mitigation of flight activity is required to protect populated areas.

The existing communication infrastructure, including radio towers within the HTAs and MTA would be sufficient to support the proposed training. No new communication infrastructure is proposed.

4.2.1 Low Level Training Operations

Within the proposed training areas, helicopters would perform various mission-essential tasks that involve flying at low altitudes, from the ground surface to a height of 500 feet above treetop level. Tasks could include following the contours of the earth as low as 25 feet above the highest obstacle, formation flight, confined area approaches, hovering, low-level navigation, and other flight maneuvering of helicopters. Pilots would also land at established HLZs to practice tasks such as confined area landings. One HLZ is proposed for HTA 2. No HLZs are proposed for HTAs 3 or 4. The training activities would be used to simulate mission activities. However, no refueling, expending of live ordnance, or actual movement of troops and/or equipment between the helicopter and the ground would occur.

4.2.2 Mountain Training Area

Within the proposed MTA, helicopters would perform various mission-essential tasks that involve performance planning, power management, and high-altitude flight techniques used to compensate for the decreased aircraft performance at high altitude. Pilots would fly at high altitudes and land at designated high-altitude HLZs using varying angles of approach, headings,

air speeds, under both day and night conditions (using infrared lights), to reach proficiency for the following tasks:

- VMC takeoff.
- VMC approach (typically 10 degrees) to a landing or to a 3-ft hover.
- Abort and go-around procedures – climb-out maneuvers performed when conditions are no longer suitable for landing. A go-around procedure is a planned diversion around an HLZ; for instance, it could be performed for weather-related reasons. An abort procedure is an unplanned diversion around a HLZ.
- Elevated (100-500 ft [30-152 m]) reconnaissance over high-altitude HLZs.
- Slope operations – landing operations performed on an angled, uneven surface.
- Pinnacle or ridgeline operations – landing operations performed on a pinnacle, or a formation similar to a pinnacle, that is a high point on a hill (or HLZ).

4.2.3 Helicopter Landing Zones

HLZs were chosen for their training-appropriate characteristics (i.e. high-altitude mountainous terrain, uneven surfaces, and pinnacle/pinnacle-like and ridge/ridge-like features) but also with safety as a consideration so as to not harm pilots or damage aircraft. Generally, a HLZ is an area that can accommodate the landing of one or more helicopter simultaneously. The terrain condition, slope, and overall topography of the HLZ are taken into consideration when selecting a HLZ. Sites chosen for HLZs must have soil conditions that are capable of supporting the weight of the aircraft to prevent aircraft from being mired, creating excessive dust, or blowing snow. Loose material can cause obscured visual conditions.

There is one proposed HLZ in HTA 2 and seven proposed HLZs in the MTA (Table 4-4). The proposed HLZs are relatively open areas that have been identified by the aviation units on JBLM as suitable for their training needs. They include abandoned quarry locations, rocky peaks, roads, and other open areas. The proposed HLZs vary in size, ranging from approximately 1 acre to 6.5 acres (Table 4-4).

It is estimated that 10 to 20 landings would occur during each training session. Landings would take place at one or more of eight identified HLZs. See Appendix A for HLZ aerial maps. Pilots would land helicopters and then take off again with little delay on the HLZ. In some cases, only a portion of the helicopter, such as one wheel, would touch down on the ground. No actual movement of troops and/or equipment between the helicopter and the ground would occur. All of the identified HLZs are presently cleared of vegetation and it is assumed that they would not require any alterations or ongoing maintenance to allow them to continue to be usable for training purposes. Each training period would be approximately 4 hours in duration, and would involve no more than seven helicopters (any combination of MH/CH-47 Chinooks, MH/UH-60 Blackhawks, and AH-64 Apaches).

Table 4-4. Proposed Helicopter Landing Zones

Landing Zone	Location Latitude/ Longitude	Elevation (feet)	Size (Acres)	Use
HTA 2-1	N46 50.1194 W123 20.2993	784 ft	3.5	Multi-aircraft landing zone
MTA 1-1	N47 53.890 W120 21.175	7186 ft	4.9	HAMET pinnacle landing zone
MTA 1-2	N47 54.8399 W120 22.4289	6307 ft	2.2	HAMET ridgeline landing zone
MTA 1-3	N47 56.1754 W120 37.6425	5753 ft	4.7	HAMET multi-aircraft landing zone
MTA 1-4	N47 38.21 W120 50.46	7676 ft	3.6	HAMET pinnacle landing zone
MTA 1-5	N48 41.43 W119 55.07	7958 ft	6.5	HAMET multi-aircraft landing zone
MTA 1-6	N48 38.96 W120 45.17	7420 ft	2.8	HAMET ridgeline landing zone
MTA 1-7	N48 10.99 W120 20.40	6934 ft	1.0	HAMET confined area landing zone

4.2.4 Use of Training Areas by Other than JBLM Military Units

The Army's Proposed Action involves use of the identified HTAs and MTA, day and night, 24 hours a day, 365 days a year, with the exception of Federal holidays. It is expected that the JBLM assigned aviation units would, for the most part, use these training areas exclusively. However, it is conceivable that other military units could request to use them for training. The Aviation Division within the Directorate of Plans, Training, Mobilization, and Security of JBLM would be the scheduling unit for the HTAs and the MTA, and is the only agency that could approve use of the training areas by other units, provided the annual training frequencies are not exceeded. The Best Management Practices (BMPs) and mitigation measures listed in the EA would apply to training activities by all military units using the training areas. Use of the training areas for the annual frequencies provided for this proposed action would require further assessment of impacts to resources and associated NEPA documentation. However, because establishing the training areas could eventually result in their use by other units in the future, it would be included in the EA analysis, particularly in regards to cumulative effects.

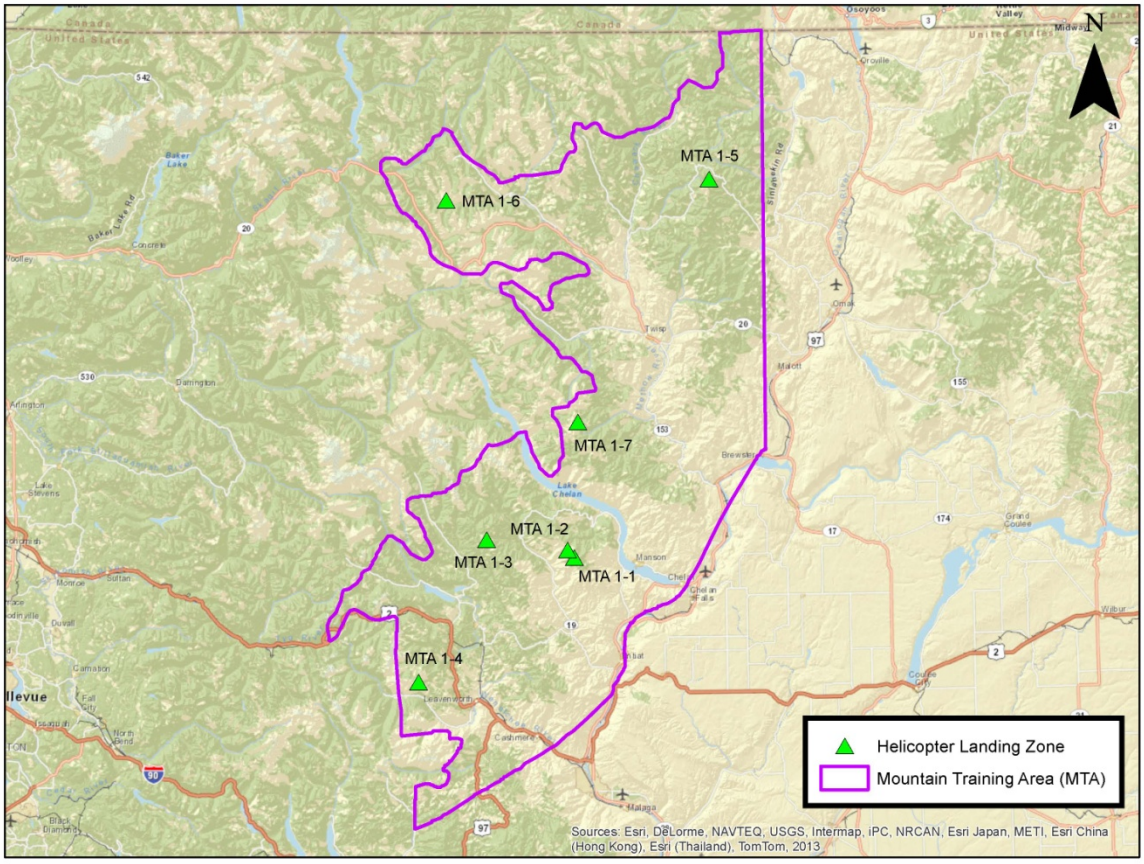


Figure 4-1. Proposed MTA

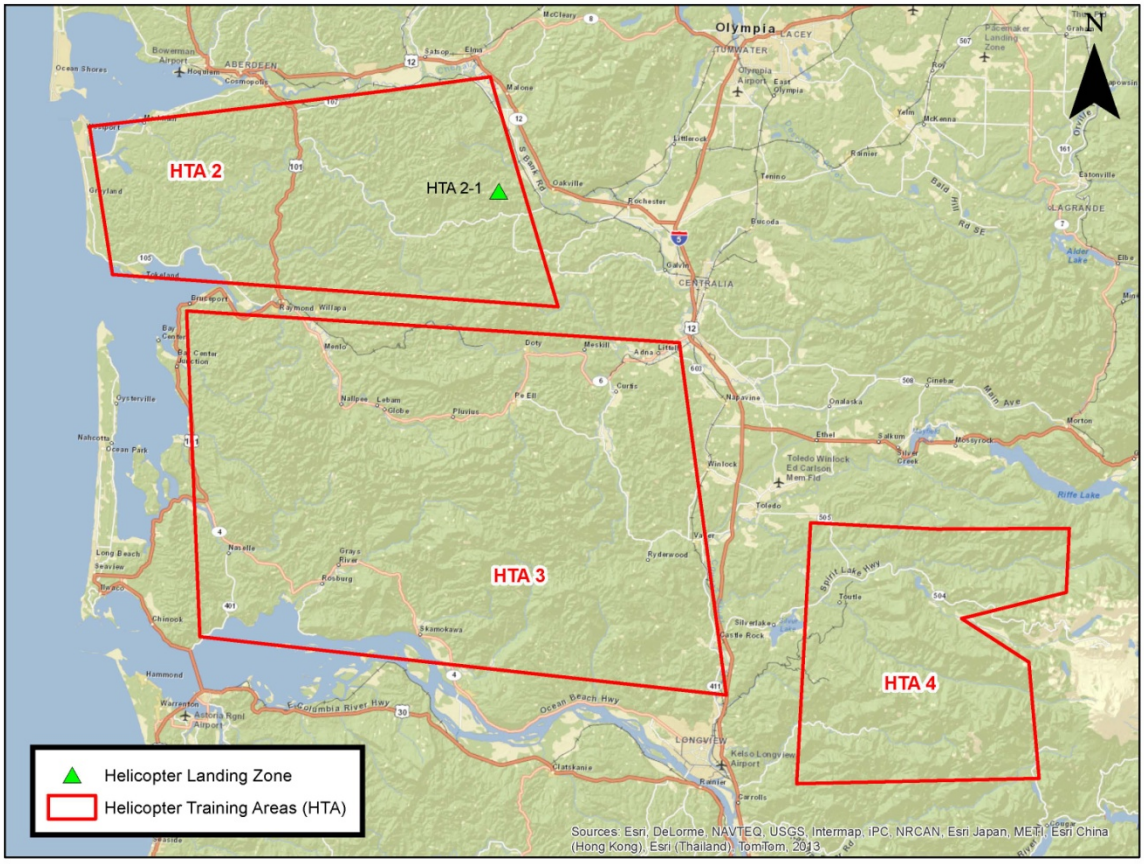


Figure 4-2. Proposed HTAs

4.3 Best Management Practices (BMP) and Mitigation

The Army would propose mitigation for adverse effects to the natural environment under the proposed action. Mitigation strategies generally would include the following:

- Avoid the impact altogether by stopping or modifying the proposed action.
- Minimize the impacts by limiting the degree of magnitude of the action and its implementation.
- Rectify the impact by repairing, rehabilitating, or restoring the affected environment.
- Reduce or eliminate the impact over time through use of preservation and maintenance operations during the life of the action.
- Compensate for the impact by replacing resources or providing substitute resources.

Mitigation proposed by the Army would include Standing Operating Procedures (SOPs) and BMPs that minimize risks and potential impacts of Army actions. Many SOPs are incorporated into JBLM or Army regulations. Additional BMPs would be identified during the course of developing the proposed action to help reduce or avoid anticipated potential effects to

resources from the action. These BMPs would be considered to be part of the proposed action. Other mitigation would be identified during the course of preparing the EA. In some cases, mitigation must be implemented to reduce impacts to less-than-significant levels, and would be identified as such.

Specific BMPs include:

- The training areas would be for aviation aircrews only and not used in conjunction with ground-maneuver training activities or for picking up/dropping off troops or supplies.
- At no time would any aircraft involved carry ammunition.
- No physical modifications (such as vegetation removal or tree clearing) of the proposed HLZs would be made.
- Per JBLM (95-1) typical flight restrictions over eagle nests include a no-fly area from the ground to 1200 feet above ground level within 1300 feet of nesting sites from 1 December to 31 August.
- To prevent accidents, Army aviators would follow the procedures outlined in Army Regulation 385-95 *Army Aviation Accident Prevention*.
- Where feasible, pilots would follow guidance in FAA Advisory Circular 91-36D, which recommends that pilots maintain a minimum altitude of 2,000 feet (610 meters) AGL when flying over noise sensitive areas, such as National Parks, National Wildlife Refuges, Wilderness Areas, and other areas where a quiet setting is a generally recognized feature or attribute of the land.
- Per the Fly Friendly Program, when conditions allow, aircraft would fly no lower than 500 feet above ground level and avoid noise-sensitive areas such as Indian Reservations, parks and wilderness areas, residential areas, schools, hospitals and built up areas.
- One pilot would stay focused outside the aircraft when in flight to help avoid bird strikes.

4.3.1 Fly Friendly Program

The Fly Friendly Program is the equivalent to the Fly Neighborly Program, both terms are used interchangeably within DoD and Army flight guidelines. The Fly Friendly Program requires that, when conditions allow, aircraft fly no lower than 500 feet AGL and avoid noise-sensitive areas such as Indian Reservations, parks, wilderness areas, residential areas, schools and hospitals. When these areas cannot be avoided, it is recommended that pilots fly 2,000 feet AGL in noise-sensitive areas to minimize noise disturbance. It is important to emphasize that rules, regulations, and other operating requirements that pertain to safety are paramount; therefore, following the Fly Friendly guidelines would not always be possible. More information on the Fly Friendly Program can be found at www.rotor.com/Operations/flyneighborly/flyneighborlyguide.aspx.

Although there would be no set flight paths to the HTAs or MTA, pilots would generally take the most direct route to the training areas, while avoiding noise sensitive areas such as those described above. The elevation pilots would fly to the training areas varies between 500 and

2,000+ feet AGL. This wide span in flight elevation is due to weather constraints such as cloud cover. JBLM aircraft follow visual flight rules (VFR) which require pilots to fly below the cloud level, which varies from day to day and even over the course of a single day. During the summer months, pilots can often fly at 2,000+ feet AGL, but winter weather often requires aircraft to fly at the lower thresholds (500-700 feet AGL).

4.4 Alternatives Considered but Eliminated from Further Consideration

4.4.1 Established High-Altitude Training Sites

High-altitude training operations could be conducted at three existing locations: 1) the Army National Guard training site in Gypsum, Colorado, 2) Fort Carson in Colorado Springs, Colorado, or 3) Fort Bliss in El Paso, Texas. All three sites require extended travel times and scheduling training slots with limited availability. Any out of state training site requires additional time away from the home station, which is referred to by the military as “perstempo.” High perstempo can have adverse effects on soldiers and their families.

4.4.2 Alternative Sites for Helicopter Training

Additional sites were identified during the initial screening process as described above in Section 4.0. Figure 4-3 shows the sites which include one MTA located just east of Mt. St. Helens and two HTAs (near Packwood/Mt. Adams and Darrington). These sites were eliminated from subsequent consideration because they failed to adequately meet several of the selection criteria.

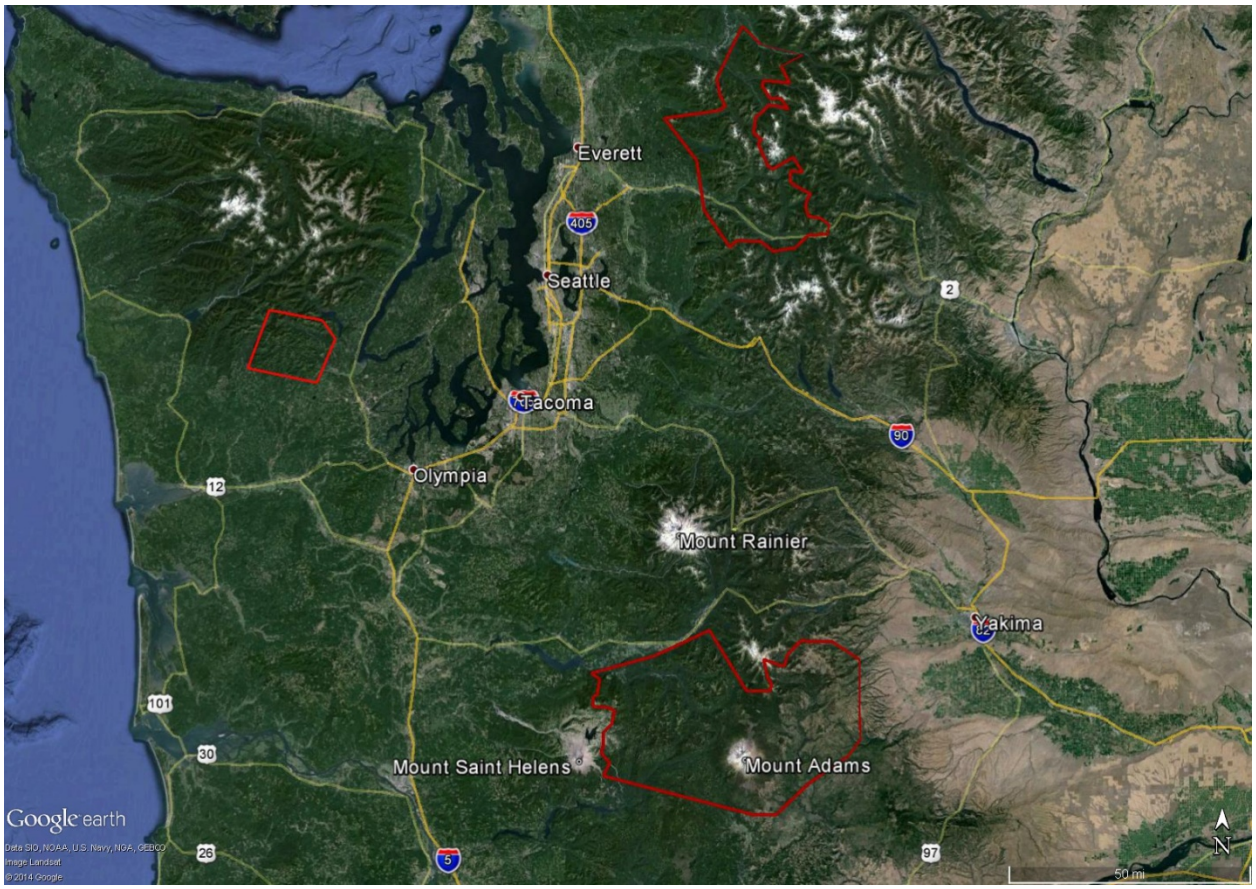


Figure 4-3. General Location Map of Eliminated Sites

5.0 RESOURCES PROPOSED FOR ANALYSIS

The following is a preliminary list of environmental issues to be addressed in the EA. These issues have been identified through analysis of past projects and ongoing military training operations. This list is not intended to be exhaustive or final, but contains those issues raised to date that could have direct, indirect or cumulative effects. After the scoping process is complete, the Army would review the list and determine the appropriate level of analysis needed to address each issue in the EA.

Resources to be analyzed are as follows:

- Land Use
- Airspace
- Airspace Safety
- Noise
- Air Quality
- Cultural Resources
- Water Resources and Wetlands
-
- Recreation and Visual Resources
- Vegetation
- Fish and Wildlife
- Proposed, Threatened and Endangered Species
- Environmental Justice
- Socioeconomics

6.0 EA PREPARATION SCHEDULE

The premise for NEPA is that providing information to the decision-maker and the public would improve the quality of final decisions concerning the environmental effects of federal actions. All persons who have a potential interest in the proposed action, including minority, low-income, and Native American groups, are urged to participate in the Army's environmental impact analysis process conducted under NEPA. At this time, the Army anticipates the need to prepare a draft and final EA.

The formal opportunity to comment involves a 30-day period for public review of the draft EA. The Notice of Availability (NOA) of the draft EA would be mailed electronically and/or hard copy to known stakeholders and interested parties. The NOA would also be publicized on the JBLM website and in local newspapers and libraries. The draft EA would be available for download from the JBLM website (http://www.lewis-mcchord.army.mil/publicworks/sites/envir/eia.aspx). Within the comment period three public meetings would occur based on the wide geographic extent of the proposed action. One meeting would occur near the HTAs and two meetings would occur within the MTA. The meeting dates, times and locations would be publicized on the JBLM website and in local newspapers and libraries.

The Army would review comments received during the public comment period to determine whether the proposed action has potentially significant impacts that could not be mitigated to less than significant. If impacts are found to have the potential to be significant after the application of mitigation measures, the Army would be required to publish a notice of intent to prepare an EIS in the *Federal Register*. If the decision-maker selects the proposed action and the EA determines that there would be no significant environmental impacts, a Finding of No Significant Impact (FNSI) would be published. The approved FNSI would be made available to the public prior to initiation of the proposed action, in accordance with 40 CFR 1506.6. The distribution of the FNSI would occur at least 30 days prior to initiation of the proposed action, with copies sent to any agencies, organizations, and individuals who have expressed interest in the project. A decision on whether to proceed with the proposed action also depends on permission from landowners to utilize the proposed training areas and helicopter landing zones (HLZs). The major milestones, including those for preparing the EA, are shown in Table 6-1.

Table 6-1. EA Milestones

Major Milestone	Target Date
Public Scoping Period	1 July – 30 July 2015
Public Scoping Period Extension	31 July – 3 November 2015
Draft EA Issued	Winter 2015/2016
Public Meetings	Winter 2015/2016
Comments on Draft EA Due	Winter 2016
Final EA Issued	Spring 2016

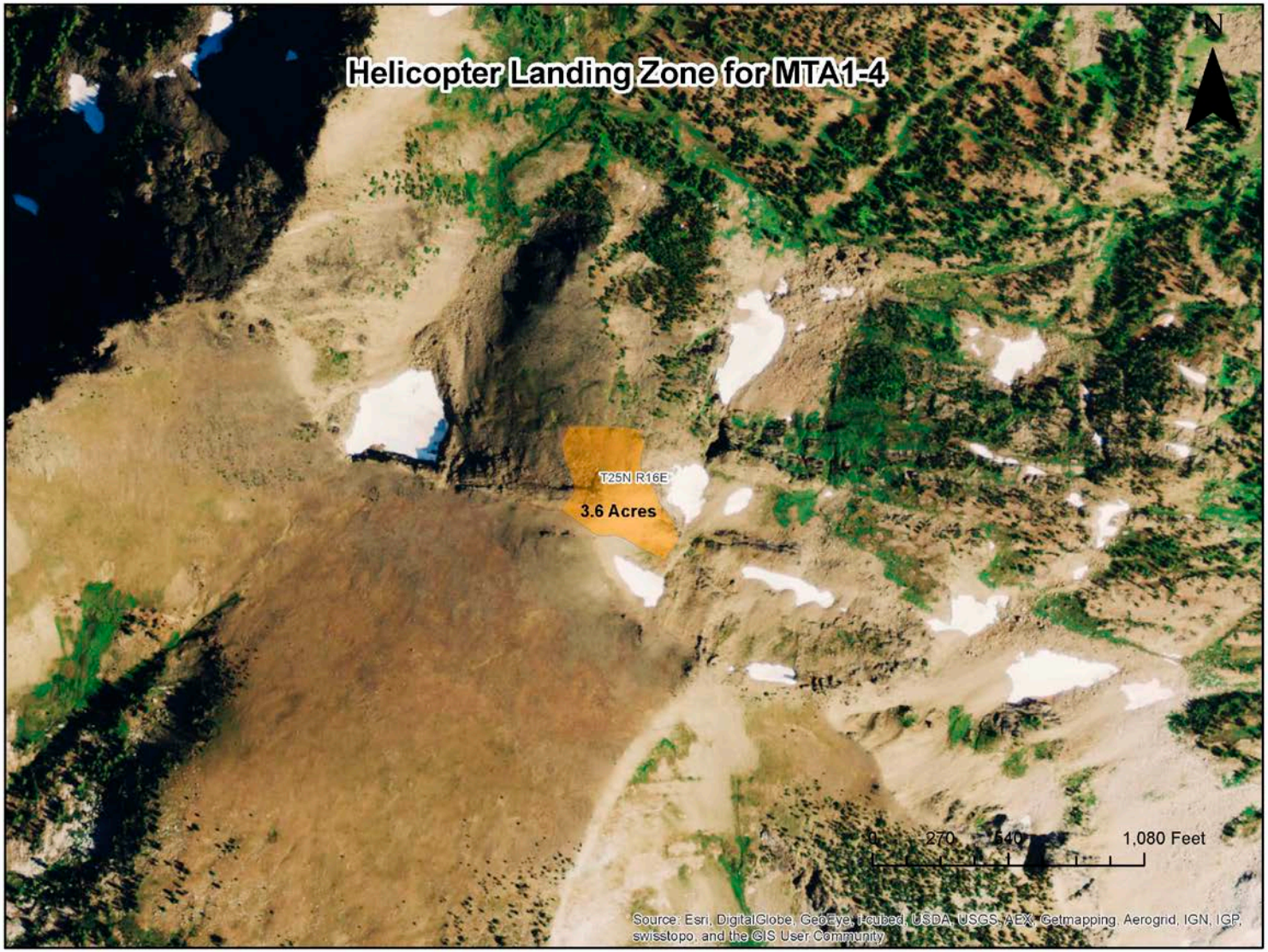
Appendix A: Helicopter Landing Zone Photos

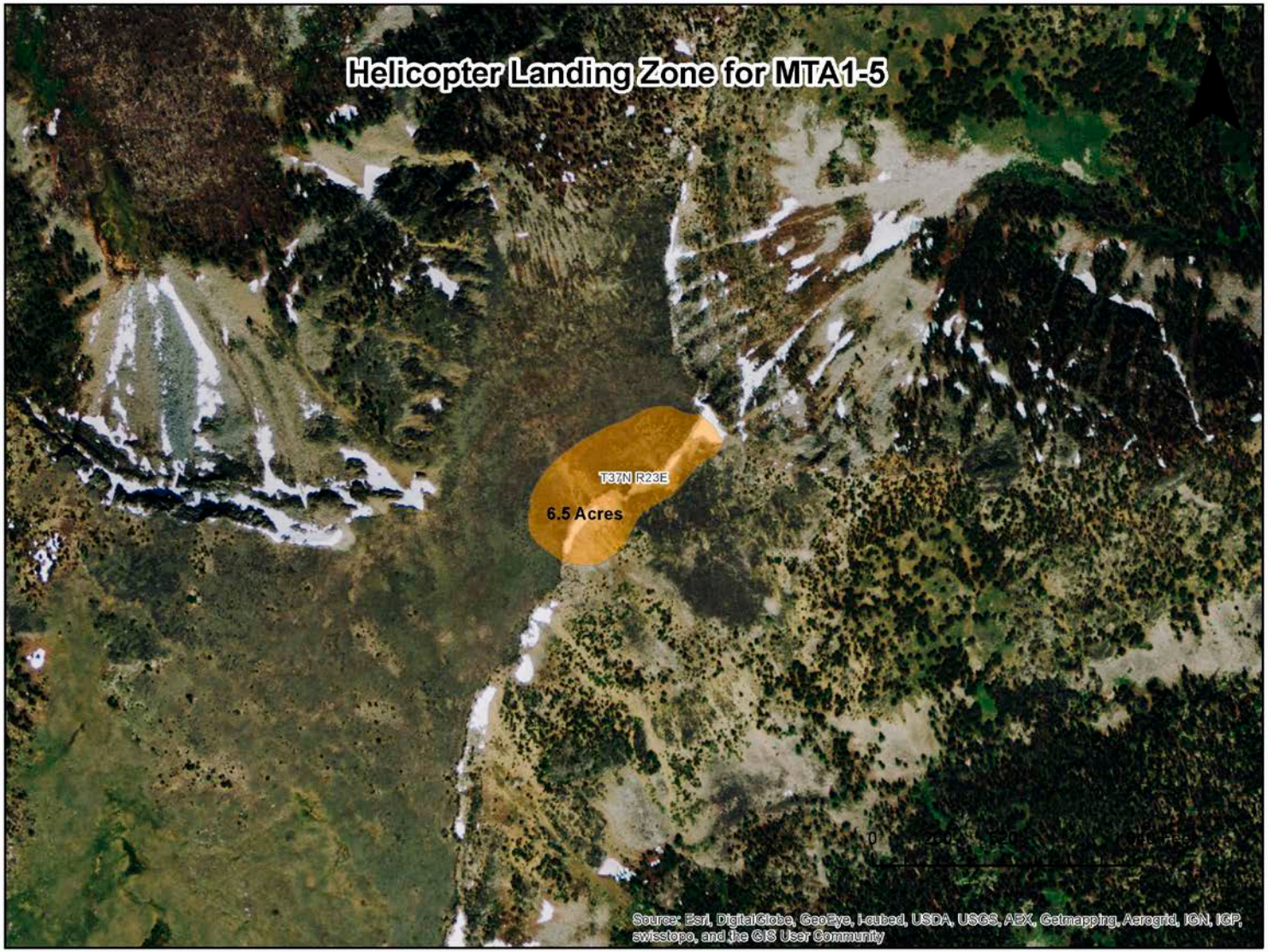
Helicopter Landing Zone HTA 2-1
3.5 Acres
T16N R5W
0 250 500 1,000 Feet
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

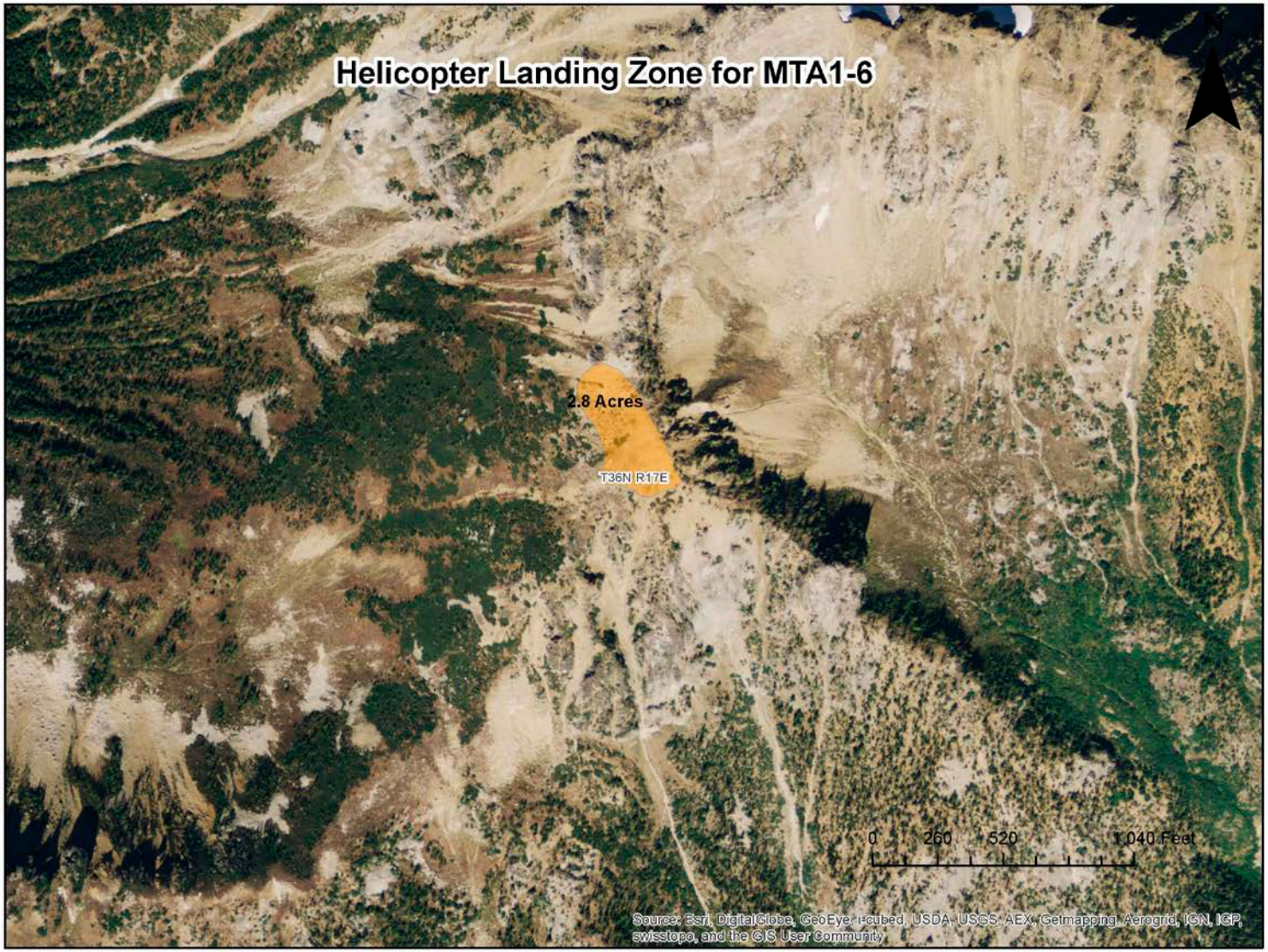
Helicopter Landing Zone for MTA1-1
4.9 Acres
T28N R20E
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Helicopter Landing Zone for MTA1-2
T28N R19E
T28N R20E
2.2 Acres
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Helicopter Landing Zone for MTA1-3
T28N R18E
4.7 Acres
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community


Helicopter Landing Zone for MTA1-4
N
T25N R16E
3.6 Acres
0
270
540
1,080 Feet
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community


Helicopter Landing Zone for MTA1-5
T37N R23E
6.5 Acres
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community


Helicopter Landing Zone for MTA1-6
2.8 Acres
T36N R17E
0 260 520 1,040 Feet
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Helicopter Landing Zone for MTA1-7
1 Acre
T31N R20E
Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community