Final

Description of the Proposed Action and Alternatives

for an Environmental Assessment Addressing the Establishment of Urban Close Air Support (CAS) Air and Ground Training Spaces near Mountain Home Air Force Base, Idaho

January

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ABBREVIATIONS AND ACRONYMS

366 FW	366th Fighter Wing
AFB	Air Force Base
AFI	Air Force Instruction
ATCAA	Air Traffic Control Assigned Airspace
CAS	Close Air Support
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DODI	Department of Defense Instruction
DOPAA	Description of the Proposed Action and Alternatives
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
FFOR	Friendly Forces
ft	foot (feet)
GPS	Global Positioning System
IR	infrared
JTAC	Joint Terminal Attack Controller
MHRC	Mountain Home Range Complex
MOA	military operations area
NEPA	National Environmental Policy Act
NM	nautical mile(s)
OPFOR	Opposing Forces
RA	Restricted Area
ROEs	Rules of Engagement
SUA	Special Use Airspace
USAF	U.S. Air Force

Cover Sheet

Final
Description of the Proposed Action and Alternatives
for
Establishment of Urban Close Air Support (CAS) Air and Ground Training Spaces near Mountain Home Air Force Base, Idaho

Responsible Agencies: U.S. Air Force (USAF); Air Combat Command; 366th Fighter Wing.

Affected Location: Urban centers located near Mountain Home Air Force Base, Idaho.

Report Designation: Description of the Proposed Action and Alternatives (DOPAA).

Abstract: This DOPAA supports USAF's *Environmental Impact Analysis Process* for the proposed establishment of ground and airspace training areas in nine urban centers near Mountain Home Air Force Base to accommodate Urban CAS proficiency training operations by F-15E aircrews of the 366th Fighter Wing with ground support from Joint Terminal Attack Controllers. Once these air and ground spaces are identified and use is coordinated, USAF redistribute the existing Urban CAS training operations from the installation to the nine urban centers.

The proposed training operations would be limited to coordinated flight and ground tracking, identification, locating, and completion of an elecrontically simulated engagement of designated targets across a range of large, medium, and small urban centers. Targets would be designated using low-power, eye-safe lasers. Aircraft would be flown at an altitude of 10,000 to 18,000 feet above ground level within a 30-nautical mile operating area for each urban center. Ground teams would support flight tracking within the ground area directly underlying the operational airspace using radio communication equipment. Realistic Urban CAS training requires that all members of each ground support team behave in a manner typical of any community member to avoid drawing attention to themselves or the operations. Thus, ground support personnel would be unarmed and dressed in plain clothes. Members of each ground support team would be inside civilian vehicles driving along paved streets and paved roadways during training operations. To facilitate aircrew tracking of identified targets, ground support may stop along the side of a paved roadway in areas that provide broad lines of sight. Ground support personnel may be positioned on paved roads located anywhere within the ground operating area, such as in vehicles driving along streets or parked along the side of a road. Individuals among the ground teams may momentarily exit the vehicle onto sidewalks or in parking lots to establish or re-establish communications with aircrews. Ground support would not interfere with civilian traffic or pedestrians. All activities would be conducted in accordance with local laws and ordinances and with the goal of leaving no trace of their activities.

This DOPAA would become **Sections 1** and **2** of an Environmental Assessment, should USAF proceed with that level of the Environmental Impact Analysis Process for the Proposed Action. Written comments and inquiries regarding this document should be directed by email to Ms. Noelle Shaver at noelle.shaver@us.af.mil, or by postal mail at the following address:

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FINAL

DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

FOR AN

ENVIRONMENTAL ASSESSMENT ADDRESSING ESTABLISHMENT OF URBAN CLOSE AIR SUPPORT (CAS) AIR AND GROUND TRAINING SPACES NEAR MOUNTAIN HOME AIR FORCE BASE, IDAHO

AIR COMBAT COMMAND

JANUARY 2018

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1. Purpose of and Need for the Proposed Action

1.1 Introduction

This Description of the Proposed Action and Alternatives (DOPAA) supports a proposal by the 366th Fighter Wing (366 FW) of the U.S. Air Force (USAF) to establish ground and airspace training areas at urban centers near Mountain Home Air Force Base (AFB) where aircrews from the 366 FW can conduct Urban Close Air Support (CAS) training operations with ground support from Joint Terminal Attack Controllers (JTACs).

1.2 Organization of this Document

This DOPAA would become **Sections 1** and **2** of an Environmental Assessment (EA), should USAF proceed with that level of the Environmental Impact Analysis Process (EIAP) for the Proposed Action. The EA would analyze the potential for significant environmental impacts associated with the Proposed Action and alternatives, including the No Action Alternative. The environmental documentation process associated with preparing the DOPAA is carried out in compliance with the National Environmental Policy Act (NEPA); the Council on Environmental Quality's (CEQ's) *Regulations Implementing NEPA* (Title 40 Code of Federal Regulations [CFR] §§ 1500–1508); and *the Environmental Impact Analysis Process* (32 CFR § 989) USAF regulations for implementing NEPA.

This DOPAA is organized into three sections and one appendix. **Section 1** provides history and background information, the project location, and the purpose of and need for the Proposed Action. **Section 2** contains a description of the Proposed Action and alternatives, including the No Action Alternative. **Section 3** lists the references used in the preparation of this document. **Appendix A** includes the public and stakeholder coordination list.

1.3 Background

Since the 1990s, CAS operations have been increasingly required in urban combat areas (JCS 2014). As such, Urban CAS in combat was established as a subset of CAS operations to which aircrews and ground forces must become trained. The wartime mission of the 366 FW includes the provision of air support during combat. Therefore, maintained currency, proficiency, and operational readiness in CAS, including Urban CAS, is required. Urban CAS is comprised of air and ground assets working as one operating unit, integrally linked in all communication and coordination efforts to identify, track, and neutralize threats.

Urban CAS operating environments typically range from small towns to large cities with corresponding extents of vertical development (e.g., tall buildings), population sizes, and cultural and community dynamics. During combat, aircraft commonly provide supporting firepower in offensive and defensive operations to destroy, disrupt, suppress, neutralize, or delay hostile forces. The speed, range, maneuverability, and selection of integrated weapons systems of the aircraft involved allows CAS assets to attack targets that other friendly and allied forces may not be able to engage effectively (JCS 2014). When conditions for air operations are permissive, CAS can halt enemy attacks, help create breakthroughs, destroy targets, cover retreats, and

guard flanks. While achieving these objectives, air and ground operations must be conducted in accordance with Department of Defense Directive 2311.01E, *DoD Law of War Program* and Rules of Engagement (ROEs), which specifies that U.S. military forces will adhere to the following guidelines:

- Act with proportionality, replying to hostility with only as much force as needed to eliminate the enemy
- Distinguish combatants from noncombatants, and distinguish military objectives from protected places to minimize collateral damage
- Prevent unnecessary suffering by safeguarding certain fundamental human rights of those involved in a conflict.

The planning and execution of Urban CAS missions is difficult because these missions either require or inevitably involve the following:

- operations in "urban canyons" (i.e., artificial canyons created by multistory buildings)
- deconfliction of multiple aircraft operating within a confined airspace
- operation in accordance with the ROEs
- difficulty in threat analysis because of information, environmental, and visibility constraints
- overload of visual cues associated with civilian traffic, presence of buildings, and varied landscape
- presence of noncombatants proximal to identified threats
- potential for collateral damage during engagement
- increased risk of friendly fire with other allied air and ground teams in the area (JCS 2014).

These operational circumstances cause tactical difficulties in properly identifying and locating potential targets while discerning and protecting Friendly Forces (FFOR). Both are critical for successful execution of Urban CAS missions. Readiness for Urban CAS missions requires that air and ground crews train intensively to gain practical experience responding to the following situations:

- *Loss of, or inability to maintain, communication.* Urban terrain inhibits communications equipment and can absorb or reflect transmitted signals.
- *Difficulty identifying targets*. Vertical development makes it difficult for aircrews to identify target combatants and may require specific positioning and orientation attack headings to achieve line-of-sight with an identified target. Ground-level observers may be positioned on upper floors of buildings to improve visibility. In these situations, ground teams (e.g., JTACs) mark and designate their positions or CAS target locations

visually with an infrared laser pointer, electronically with a Global Positioning System (GPS) grid, or with a gridded reference graphic to guide aircraft tracking.

- *Difficulty maneuvering aircraft over urban terrain*. Aircraft navigation over and through urban terrain can be more difficult than over natural terrain because maps do not show vertical development of urban terrain.

- *Requirement for navigational aids*. Rapid movement from position to position can create confusion between aerial and ground observers as to friendly and enemy locations. Familiarity with the characteristics of urban terrain allows aircrews to discern key features in this environment. Navigational aids, such as GPS, have reduced but not eliminated this challenge. The use of the GPS and handheld laser pointers or designators eases the problems associated with night navigation, orientation, and target identification.

- *Conditions of limited visibility*. Limited visibility may occur because of fog, smoke, or dust on the battlefield, but occurs most frequently because of operations extending into hours of darkness. Night navigation systems may be degraded because of interference induced by buildings and enemy GPS jamming equipment. Ability to provide CAS during times of limited visibility and adverse weather demands a higher level of proficiency that can only come about through dedicated, realistic CAS training. Aircrews and JTACs must routinely and consistently train together during such conditions to overcome visual limitations when the aircrew have only sensors and systems to guide them.

- *Artificial lighting*. Rapidly changing lighting conditions from day/night operations and the effects from operating within terrain with artificial lighting impacts how the target presents against its background and the measures required to ensure an aircrew can distinguish it from its surroundings. Additionally, the artificial lighting of urban environments can limit the usefulness of night vision equipment because lights from buildings, streets, airports, and industrial areas can create glare and reduce visibility (JCS 2014).

Currently, Mountain Home AFB is home to three fighter squadrons (two F-15E squadrons and the Royal Singapore Air Force squadron of F-15SGs) under operational control of the 366 FW. Aircraft based at Mountain Home AFB conduct more than 90 percent of their flight training in the Mountain Home Range Complex (MHRC). The MHRC consists of the Saylor Creek and Juniper Butte Gunnery Ranges as well as_airspace that consists of six military operations areas (MOAs) and an associated Air Traffic Control Assigned Airspace (ATCAA), allowing aircraft to train at altitudes up to 50,000 feet mean sea level (MSL). The MOAs within MHRC airspace are Paradise North, Paradise South, Owyhee North, Owyhee South, Jarbidge North, and Jarbidge South. Additionally, other aircraft from Air Combat Command, Air National Guard, sister services, and foreign allies regularly train in the MHRC. Although F-15Es are flown through all nearby airspaces, military training routes, MOAs, Federal Aviation Administration and ATCAA - controlled airspaces, all authorized Urban CAS training is currently restricted to Mountain Home AFB and its ranges.

In this EA, Urban CAS operations are discussed in terms of training events, training operations, sorties, and flight operations. A training event involves a collection of training operations

conducted within a 24-hour period. A training operation involves the roundtrip (i.e., departure and return) flights of multiple F-15E aircraft from the installation to meet a defined training objective. The roundtrip flight of each aircraft involved is one sortie. Each sortie is comprised of two flight operations: the departure flight of an aircraft from the installation to the training area, and the return flight of that aircraft to the installation from the training area.

The baseline total for flight operations at Mountain Home AFB is approximated at 70,704 operations per year and includes all Mountain Home AFB and transient aircraft operations (AFCEC 2017). Approximately 260 training events involving approximately 6,760 flight operations are conducted annually for Urban CAS training. Thus, the annual total of Urban CAS operations represents approximately 9.5 percent of the installation's annual baseline for flight operations.

The existing proficiency training in Urban CAS on the installation involves the flying of unarmed F-15E aircraft within an altitude of 10,000 to 18,000 feet (ft) above ground level within a 30-nautical mile (NM) operating area and support from JTACs from the ground area directly underlying the operational airspace. Ground support personnel are dressed and behave in a manner that is consistent with the civilian community to avoid drawing attention to the operations. To facilitate aircrew tracking of identified targets, lead JTACs may be positioned in or on buildings in areas that provide broad lines of sight. Remaining ground support personnel may be positioned anywhere on the installation such as in vehicles driving along streets or parked along the side of a road, walking along sidewalks, or walking into or out of buildings.

1.4 Project Location Description

Mountain Home AFB, located in southwestern Idaho approximately 45 miles southeast of Boise (see **Figure 1-1**), occupies 6,844 acres of land and supports three squadrons of F-15E/SG aircraft under the operational control of the 366 FW. The assets owned and controlled by the installation include the Small Arms Range, Rattlesnake Radar Station, Middle Marker, C.J. Strike Dam Recreation Annex, and the MHRC (Mountain Home AFB 2017). The MHRC (see **Figure 1-1**) is managed by the 366 FW and comprises Saylor Creek Range, Juniper Butte Range, target and emitter sites, and over 9,026 square nautical miles of Special Use Airspace (SUA).. Saylor Creek Range encompasses approximately 109,466 acres and is approximately 25 miles southeast of Mountain Home AFB. Juniper Butte Range encompasses approximately 12,112 acres (662 acres are fenced off for operations and the other 11,450 acres leased to support grazing) and is located approximately 50 miles southeast of Mountain Home AFB (Mountain Home AFB 2017). SUA over Saylor Creek Range includes Restricted Area (RA) R-3202 and SUA over Juniper Butte Range includes RAs R-3204A and R-3204B (see **Figure 1-1**). These areas are critical to the readiness of combat aircrews from Mountain Home AFB. The installation has a population of approximately 8,547 people (Mountain Home AFB 2015). Vertical development on the installation is constrained to accommodate flight safety requirements along the flight line. Generally, the developed land area is in the central to northern portion of the installation.

1.5 Purpose of and Need for the Proposed Action

Purpose. The purpose of the Proposed Action is to ensure F-15E aircrews from the 366 FW can conduct Urban CAS proficiency training within the full range of urban ground and airspace environments with ground support from JTACs. Only this combination of training conditions would adequately simulate the current mission realities of urban combat.

Need. Urban CAS is comprised of air and ground assets working as one operating unit integrally linked in all communication and coordination efforts to identify, track, and neutralize threats. The successes of Urban CAS missions hinge on the proficiency and operational readiness of air and ground teams who coordinate and execute them.

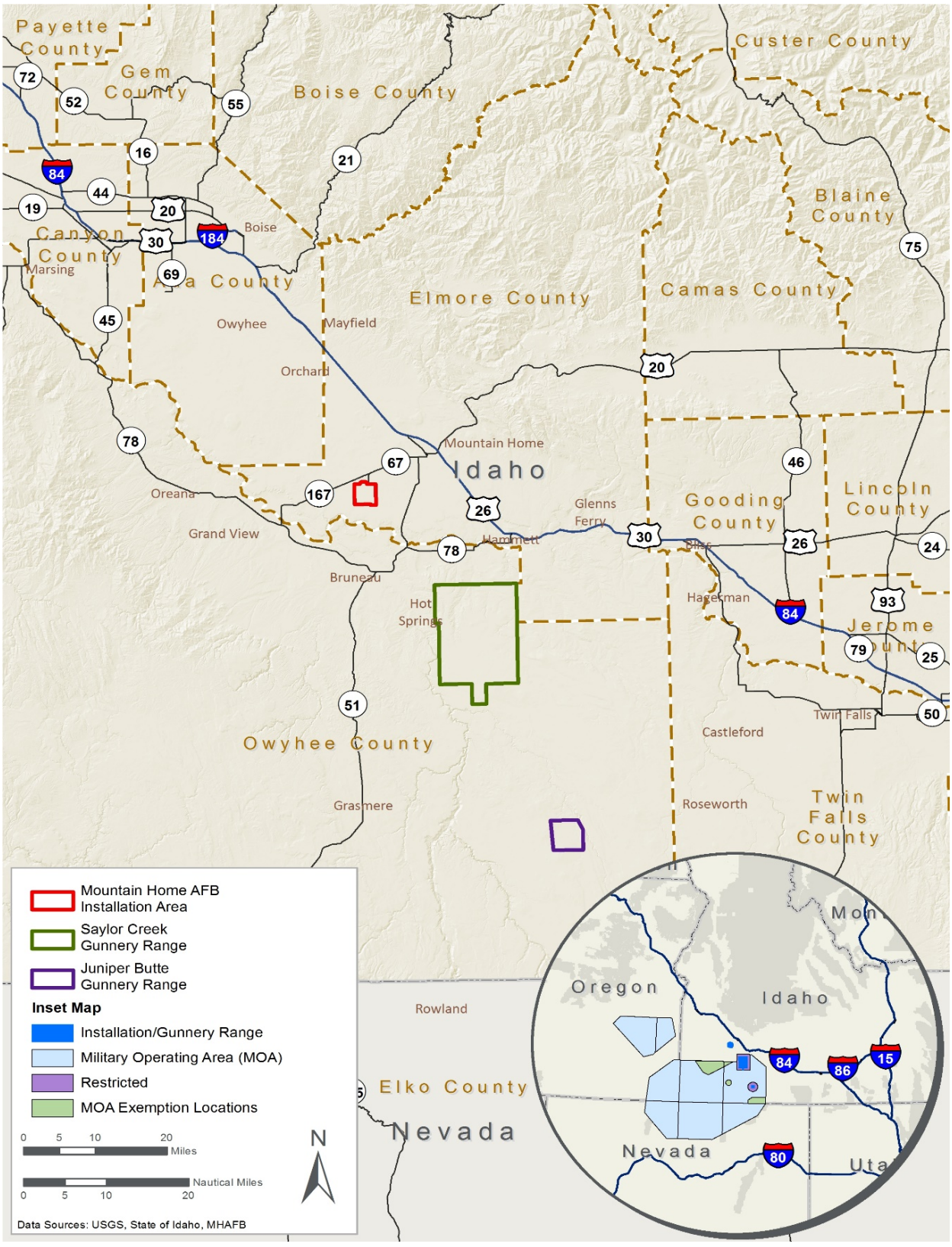

Figure 1-1. Mountain Home AFB and Surrounding Area

To be adequately prepared for combat, increase the survivability of air and ground teams (i.e., JTACs), and avoid collateral damage to civilians, aircrews and JTACs must train intensively together in urban settings that realistically simulate the urban environments encountered in combat. The Proposed Action is needed because there are no designated urban environments that can be reliably used by F-15E aircrews and ground support teams to fulfill the Urban CAS aircrew proficiency-training requirement.

1.6 NEPA and Other Compliance Requirements

NEPA is a federal statute requiring the identification and analysis of potential environmental impacts associated with proposed federal actions before those actions are taken. NEPA helps decision makers make well-informed decisions based on an understanding of the potential environmental consequences. NEPA established the CEQ, which is charged with the development of implementing regulations and ensuring federal agency compliance with NEPA. The process for implementing NEPA is outlined in 40 CFR §§ 1500–1508, *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*.

CEQ regulations specify that an EA be prepared to provide evidence and analysis for determining whether to prepare a Finding of No Significant Impact or an Environmental Impact Statement (EIS). The EA aids in an agency's compliance with NEPA when an EIS is unnecessary and facilitates preparation of an EIS when one is required.

Air Force Policy Directive 32-70, *Environmental Quality*, states that USAF will comply with applicable federal, state, and local environmental regulations and standards for environmental stewardship including those identified in 32 CFR § 989.

In compliance with NEPA, USAF will determine if preparation of an EA is the appropriate level of the EIAP for the Proposed Action described in **Section 2.1**. The EA would determine whether the Proposed Action would result in significant impacts. If significant impacts were predicted, then USAF would decide whether to provide mitigation to reduce impacts below the level of significance, undertake the preparation of an EIS, or abandon the Proposed Action. The EA would also be used to guide USAF in implementing the Proposed Action in a manner consistent with USAF standards for environmental stewardship should the Proposed Action be approved for implementation.

USAF is required to manage impacts on protected species and their habitats, floodplains, and wetlands in accordance with AFI 32-7064, *Integrated Natural Resources Management*, which includes the USAF guidance for compliance with the Endangered Species Act, Executive Order (EO) 11988, *Floodplain Management,* and EO 11990, *Protection of Wetlands*. Although intermittent populations of federal- and state-listed species, floodplains, and wetlands are within several of the urban centers where Urban CAS training could occur, the proposed training activities would not impact these resources. No impacts would be expected because operations would not involve ground disturbance and would avoid areas where protected species and their habitats exist.

NEPA requires consideration of impacts to cultural resources (40 CFR § 1508.8). Federal agencies' responsibility for protecting historic properties is defined primarily by Section 106 of

the National Historic Preservation Act. Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties in accordance with 36 CFR § 800. Cultural resources also may be covered by state, local, and territorial laws. USAF manages impacts on cultural and historical resources in accordance with AFI 32-7065. Pursuant to these regulatory and USAF policy requirements, the USAF is coordinating with the Idaho State Historic Preservation Office. Because ground teams would operate under strict protocols of prescriptive avoidance of buildlings and facilities of cultural or historical importance and avoidance of areas where archeological resources are known, or may potentially occur, impacts from the Proposed Action on these resources are not expected.

1.7 Intergovernmental and Stakeholder Coordination

NEPA requirements help ensure environmental information is made available to the public during the decision-making process and prior to actions being taken. CEQ NEPA regulations state, "There shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a Proposed Action. This process shall be termed scoping." EO 12372, as amended to EO 12416, *Intergovernmental Review of Federal Programs*, requires federal agencies to provide opportunities for consultation by elected officials of state and local governments that would be directly affected by a federal proposal.

In compliance with NEPA, USAF notifies relevant agencies, stakeholders, and federally recognized tribes about the Proposed Action and alternatives (see **Appendix A** for stakeholder and public involvement materials). The notification process offers these relevant agencies and groups the opportunity to provide comments on the Proposed Action and potential impacts that could occur. Upon completion of a Draft EA, a Notice of Availability will be published in the *Mountain Home News*, *The Idaho Statesman*, and the *Idaho Press*. Copies of the Draft EA will also be sent to local libraries. Public and agency comments on the Draft EA will be considered prior to a decision being made on whether or not to sign a Finding of No Significant Impact.

2. Description of the Proposed Action and Alternatives

This section describes the Proposed Action and the alternatives considered for implementation, including the No Action Alternative. The NEPA process evaluates potential environmental consequences associated with a Proposed Action and considers alternative courses of action. Reasonable alternatives must satisfy the purpose of and need for a Proposed Action, as defined in **Section 1.5**. USAF NEPA regulations also specify the inclusion of a No Action Alternative against which potential impacts can be compared. While the No Action Alternative would not satisfy the purpose of or need for the Proposed Action, it is analyzed in accordance with CEQ and USAF NEPA regulations.

2.1 Proposed Action

USAF proposes to: 1) establish air and ground training spaces in urban centers located proximally to the installation and within Idaho that would adequately simulate the large, medium, and small urban centers encountered during combat, and 2) establish an Urban CAS aircrew proficiency training regime in the selected urban centers. This action would not increase flight operations for the installation. Rather, it would distribute existing flight operations among the installation's ranges and airspaces and the air and ground spaces at the urban centers that are identified as also able to accommodate the proposed training. Ideally, the proposed training would occur across multiple urban centers to give the 366 FW scheduling options for available airspaces, and a variety of urban terrain that would accommodate realistic scenarios where operators would need to respond to unexpected complications.

Once all of the air and ground spaces that can accommodate the training are identified, and use is coordinated, all Urban CAS aircrew proficiency training operations would be redistributed from solely occurring on the installation and its ranges to include the additional locations. The proposed training would be limited to coordinated flight and ground activities to be completed by integrally linked aircrews and ground support teams (including JTACs) who would be in constant communication with each other throughout every training scenario. Ground support would be associated with one of two operating teams: FFOR or Opposing Forces (OPFOR; who, for training purposes would be identified as hostile threats). FFOR would work with aircrews to identify, locate, track, and mark OPFOR targets that may include individuals of the OPFOR team, or vehicles or buildings where gatherings of hostile groups would be simulated. Aircrews and FFOR teams would track targets until conditions for an aircrew-simulated engagement are deemed to be in accordance with the ROEs (see **Section 1.3**) (JCS 2014). The mock engagement would entail electronically locking onto an identified OPFOR target and completing a computer simulated combat engagement to neutralize the threat. Following this, aircraft would return to the installation. For ensured safety, all F-15E aircraft that would be used during Urban CAS aircrew proficiency training would be "clean," meaning that no munitions would be installed on the aircraft.

The Proposed Action includes six components: 1) aircraft, 2) personnel, 3) airspace, 4) ground operating areas, 5) air and accompanying ground operations, and 6) simulated munitions.

Sections 2.1.1 through **2.1.6** provide additional details regarding each component of the Proposed Action.

2.1.1 Aircraft

USAF proposes to conduct the proposed aircrew proficiency training operations using the existing F-15E aircraft based at Mountain Home AFB.

2.1.2 Personnel

The Proposed Action would use existing aircrew personnel operating at Mountain Home AFB. Ground support teams would use other active-duty military or military reserves JTAC personnel located near Mountain Home AFB who already operate in conjunction with installation operations. No personnel additions to Mountain Home AFB would be required as part of the Proposed Action. Aircrews would consist of two pilots and at least one weapons system operator per aircraft. Ground personnel involved in the training operations would form two operating teams: FFOR and OPFOR. Up to 15 personnel would simulate FFOR and would include JTACs. Up to 20 personnel would simulate OPFOR.

2.1.3 Airspace

USAF proposes to conduct these training operations within an airspace area of 30 × 30 NM (or within a 15-NM radius) of the center point of each urban center. The operating airspace altitude would range between 10,000 and 18,000 ft above ground level. Use of airspaces overlying the selected urban centers would vary depending upon availability to support proficiency training operations. All airspace operations would be coordinated with the appropriate air traffic controlling agency in accordance with USAF flight safety regulations and planning protocols. Notices to Airmen regarding planned airspace operations would be issued, as appropriate.

2.1.4 Ground Operating Areas

Ground support teams would operate in accordance with local, state, and federal regulations, and also the Department of Defense Instruction (DODI) 1322.28, and would conduct Urban CAS training activities within the 30 NM of ground space that directly underlies the 30-NM airspace operating area designated for aircrew training at each selected urban center. Generally, ground teams would be driving along paved public roads. Vehicles may, momentarily, parked along the side of a paved road, sidewalk, or in parking lots, to allow individuals to exit the vehicles to establish or re-establish communications with aircrews. Uses of routes and surface parking lots would be coordinated, as required by DODI 1322.28, with the appropriate government authorities.

2.1.5 Operations

Flight Operations. For Urban CAS proficiency training, a “training event” is a collection of “training operations” that would take place at a single urban area on a given day (i.e., 24-hour period). Therefore, discussion in this EA may interchangeably address training events as training days. A typical sortie would be defined as the round-trip, or, a departure and return flight of a single aircraft to the installation. Each leg of a sortie would be defined as a flight operation. During a training operation, 2 (or a maximum of 4) aircraft would depart the installation, enter the CAS wheel outside of an urban area, enter the urban center airspace to

conduct training (for a duration of 60 to 90 minutes), then returning to the installation. Thus, a training operation would involve 2 (or a maximum of 4) sorties.

Generally, only two aircraft would be in the urban center airspace at one time. However, fulfillment of proficiency training in operational transitions (or, "hand-offs") from one pair of aircrews to another pair of aircrews would require presence of 4 aircraft in the CAS wheel. During an operational hand-off, the aircrew from a pair of aircraft that actively tracking in the urban center airspace would communicate status of the operation to the aircrew of the two aircraft remaining in the CAS wheel. Then, the aircraft in the urban center would exit to the CAS wheel, and the aircraft waiting in the CAS wheel would enter the urban center to continue the tracking effort.

Each training operation would be followed by a 2- to 3-hour period of no flight activity during which ground support teams would organize for the next training operation.

A training event may involve day or a combination of day-night training operations. Day training would occur between the hours of 7 a.m. and 10 p.m. Night training would occur between the hours of 10 p.m. and 7 a.m.

Annually, a maximum of 260 Urban CAS proficiency training events (involving 650 training operations) would be expected to be conducted across all identified urban centers. Of this maximum number of training events:

- At least 75 percent (or 195) of the anticipated annual training events would involve day training operations. During day training, aircrews and ground support teams would conduct two training operations (including one between 7 a.m. and 12 p.m., and the other between 2 p.m. and 10 p.m.) per 24-hour period. On these days, an estimated maximum of 3 hours of dedicated flight activities over an urban center would be expected. At least 70 percent of the anticipated total number of day training operations would involve 2 aircraft flying in the CAS wheel and operating over an urban center. At least 30 percent of the total number of day training operations would involve 4 aircraft to incorporate proficiency training in operational hand-offs. Thus, a total of 390 day training operations, comprised of 1,014 sorties (4,056 flight operations) could be expected per year.
- At least 10 percent (or 26) up to a maximum of 25 percent (or 65) of the anticipated annual training events would involve two day training and two night training operations within the 24-hour period. Each training operation would be followed by a 2- to 3-hour period of no flight activity during which ground teams would organize for the next training operation. On these training days, an estimated maximum of 6 hours of dedicated flight activities over an urban center would be expected. At least 95 percent of the anticipated total number of day training operations would involve 2 aircraft flying in the CAS wheel and operating over an urban center. At least 5 percent of the total number of day training operations would involve 4 aircraft to incorporate proficiency training in operational hand-offs. Assuming the maximum percentage (i.e., 25 percent), a total of 260 combined day-night training operations involving 676 sorties (2,704 flight operations) would be expected per year.

- Operations would be conducted in some combination of large, medium, and small urban centers. The anticipated envelope of training events and training operations that would be conducted in each category of urban center is provided in **Table 2-1**. **Table 2-2** provides the annual envelope for the anticipated total 6,760 flight operations associated with day and day-night training operations in each category of urban center.

Table 2-1. Annual Envelope of Training Events for each Urban Center Size Category

Urban Center	Total Number of Training Events (Training Operations) *		Number of Day Training Events (Training Operations)		Number of Day-Night Training Events (Training Operations)	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Large	100 (250)	260 (650)	75 (150)	195 (390)	25 (100)	65 (260)
Medium	80 (200)	260 (650)	60 (120)	195 (390)	20 (80)	65 (260)
Small	80 (200)	260 (650)	60 (120)	195 (390)	20 (80)	65 (260)

Note: (*) – For purposes of analysis, the maximum number of training events and training operations represents the conservative scenario wherein all operations would occur in one of the listed urban centers. The annual sum of operations would not exceed 260 training events.

Table 2-2. Annual Envelope of Day and Day-Night Flight Operations for each Urban Center Size Category

Day Training Operations [1, 2]

Urban Center	Total Day Training Operations		Total Day Training Sorties		Total Day Training Flight Operations	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Large	150	390	390	1,014	2,280	4,056
Medium	120	390	312	1,014	1,824	4,056
Small	120	390	312	1,014	1,824	4,056

Day-Night Training Operations [1, 3]

Urban Center	Total Day-Night Training Operations		Total Day-Night Training Sorties		Total Day-Night Training Flight Operations	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Large	100	260	260	676	1,520	2,704
Medium	80	260	208	676	1,216	2,704
Small	80	260	208	676	1,216	2,704

Table Notes:

1 – At least 75 percent of day training would involve 2 training operations per 24-hour period; 25 percent of day-night training would involve 4 training operations per 24-hour period. One sortie involves two flight operations (i.e., one departure flight from the installation and one return flight to the installation) of one aircraft.

2 – At least 70 percent of day training sorties would involve 2 aircraft; 30% would involve 4 aircraft proficiency training in operational hand-offs.

3 –At least 95 percent of day-night training sorties would involve 2 aircraft; 5 percent would involve 4 aircraft proficiency training in operational hand-offs.

- For the purposes of this analysis, it is assumed that the maximum number of annual training events would occur at each urban center selected to accommodate the proposed training. Although it is unlikely that all training operations would be conducted only at one urban center, this analysis approach enables the most conservative estimation of impacts on resources for each urban center that could occur. Actual training levels would vary between the minimum and maximum numbers of training events for each urban center in its respective size category.
- Typically, operators deploy in 3-year cycles. Therefore, once every 3 years, there would be periods wherein proficiency training surges would be required to accommodate aircrews that are readying to deploy. During these periods, flight operations at an urban center likely would be greater than the anticipated minimum operating levels presented in **Tables 2-1** and **2-2**; however, the annual anticipated maximum number of training events would not be exceeded.
- Concurrent training operations at more than one urban center would be expected for 20 to 30 percent of the proposed maximum number of training days (i.e., 260) annually across all urban centers. The ability to operate at more than one urban center would allow the 366 FW the flexibility to surge proficiency training operations without concentrating the impacts of increased operations over any one urban center. Concurrent operations would be conducted at an anticipated maximum of two of the identified urban centers per training day and could involve day or day-night training operations.

Ground Operations. Ground teams (comprised of JTAC-certified operators) would be dressed in plain clothes and would be driving civilian vehicles to blend in with the community. Ground support personnel from either the FFOR or OPFOR ground teams may be positioned along paved roads anywhere within the 30 NM ground operating area for an urban center. During a training operation, members of each ground support team would remain within their vehicles at all times unless they need to temporarily exit their vehicles to establish communications or improve visibility of aircraft and the local areas. In such instances, vehicles would be momentarily parked along the roadside, sidewalk, or in a surface parking lot. Operations would not require the use of any buildings, and would not be conducted near schools, hospitals, churches, or cemeteries.

FFOR would consist of up to five civilian type vehicles with up to three passengers per operating vehicle. FFORs would direct aircraft using a variety of tactical communication devices (e.g., frequency modulation radio, very high frequency radio, ultra high frequency, and satellite communication radios). Additionally, FFOR may use data link systems to receive or transmit analog or digital information to the aircrew. Each of these devices would be operated on pre-approved, dedicated military frequencies. OPFOR would use up to five civilian type vehicles in various convoy scenarios with up to four passengers per vehicle.

Realistic preparation for Urban CAS ground activities during deployments requires members of each ground support team behave in a manner typical of any community member to avoid drawing attention to themselves or the operations. Ground teams would not interfere with civilian traffic or pedestrians. All ground operations would be coordinated with law enforcement,

emergency services, and local governments to ensure awareness and safety. Further, all activities would be conducted in accordance with local laws and ordinances and with the goal of leaving no trace of their activities on cultural or natural resources. Any deviations from these restrictions would be coordinated and approved in accordance with DODI 1322.28, *Realistic Military Training off of Federal Property*.

Mission Scenarios. Prior to mission training operations, F-15E aircrews would maintain flight in a circular path, known as a CAS wheel, in the airspace that overlies the farther outskirts of town or the outermost edge of the 15-NM radius from the urban center point. Two, or a maximum of four, aircraft would fly in the CAS wheel at any one time. As described in **Section 2.1.5,** scenarios wherein four aircraft would fly in the CAS wheel would involve aircrew proficiency training in operational hand-offs during tracking efforts. Ground teams would be working within the urban center in accordance with their particular force position (FFOR or OPFOR). To begin a mission scenario, members of the FFOR team would contact aircrews flying in the CAS wheel with a request for air support to identify and locate a hostile threat. The aircraft would separate from the CAS wheel, fly toward the urban center point, and be guided with instrumentation and communication to identify, track, and simulate neutralization of the OPFOR. The two aircraft would fly throughout the airspace overlying the city in a wedge formation where the lead aircraft would be positioned at a lower altitude and ahead of the second aircraft. The second aircraft serves to cover the lead aircraft from a higher altitude and reasonable distance behind, where visibility surrounding the first aircraft can be maintained. Flight tracking of OPFOR would continue until the point of simulated weapons fire. Upon mission completion, the aircraft would return to the installation.

2.1.6 Munitions Use

Aircrews would use the on-board weapons firing simulation system to mock bomb identified targets. The proposed training operations would not involve use of weapons to fire munitions. Munitions would not be loaded on the F-15Es that are flown during the proposed proficiency training operations. Ground teams would not carry weapons.

All interactions between air and ground teams would be achieved through use of electronic equipment including tactical communication radios (e.g., frequency modulation, very high frequency, ultra high frequency, and satellite communication), navigational GPS for maintaining awareness of target locations, low-power, eye-safe infrared training lasers for marking targets, and computer simulation systems on board the aircraft.

2.2 Selection of Alternatives

Considering alternatives helps to avoid unnecessary impacts and allows for an analysis of reasonable ways to achieve the stated purpose. To warrant detailed evaluation, an alternative must be reasonable. To be considered reasonable, an alternative must be suitable for decision making, capable of implementation, and sufficiently satisfactory with respect to meeting the purpose of and need for the action. CEQ NEPA regulations define reasonable alternatives as those that are economically and technically feasible, and that show evidence of common sense. Certain requirements must be present or reasonably attainable to meet the purpose of and need for the Proposed Action.

In the USAF, selection standards are used to establish the paramters that must be met for alternatives to be considered reasonable and sufficient to adequately support a Proposed Action. For this EA, large, medium, and small urban centers to be selected to support Urban CAS training proficiency must have urban environments that fully enable the 366 FW to meet its proficiency training requirements, as stated in **Section 1.3**. To determine whether an urban center would adequately simulate the challenges operators face during combat, each center was evaluated by applying the following selection standards:

A. **Must be located proximally to the installation.** Optimally, the selected small urban centers would be within a 30-mile radius of the installation to enable pre- and post-mission briefs with ground teams the same day as each training scenario. Medium and large urban centers would be within a 100-mile radius of the installation. This proximity would facilitate identification of a sufficient variety of medium and large urban environments within a distance that would enable at least 90 minutes of F-15E flight over an urban center without a requirement for refueling.

B. **Must include a variety of population sizes and densities to adequately simulate the range of community dynamics and civilian traffic encountered during urban combat.** For this EA, a large urban center would have a population of greater than 60,000 people, a medium urban center would have a population of 10,000 to 60,000 people, and a small urban center would have a population between 400 and 10,000 people. Large urban centers of the indicated size would provide a highly dynamic environment with large civilian traffic volumes, medium urban centers of the indicated size would profide a moderately dynamic environment with medium civilian traffic volumes, and small urban centers of the indicated size would provide a less dynamic environment with small civilian traffic volumes. Therefore, the populations decribed above that are typical of large, medium, and small urban centers in Idaho would provide the varied characteristics necessary to attain realistic training.

C. **Must have the physical attributes required to adequately simulate the challenges presented by various populated urban environments encountered during combat.** Physically distinct operating areas provide dedicated spaces wherein air traffic can be more efficiently and safely controlled to accommodate flight training activities. Therefore, to accommodate the proposed proficiency training in Urban CAS, the selected large, medium, and small urban centers must meet the following conditions.

Large Urban Center(s)

- Must be physically distinct from (i.e., not associated with) any other large urban centers or metroplex areas (e.g., Boise-Nampa-Meridian Metroplex). If associated with any other large urban center, the larger of the urban centers should be prioritized for selection.
- Must have multiple buildings with vertical development at or exceeding 10 stories (approximately 100 ft) within 4 square city blocks (where approximately 280,000 square ft [6.4 acres] equals one city block),
- Must not have overlapping 30-NM operating areas with any other large urban centers. If multiple, physically distinct, large urban centers have overlapping

operating areas, the larger of the urban centers should be prioritized for selection.

Medium Urban Center(s)

- Must be physically distinct from any other medium urban center(s)
- Must not have overlapping 30-NM operating areas with any other medium urban center. If multiple medium urban centers have overlapping operating areas, the larger of the urban centers should be prioritized for selection.

Small Urban Center(s)

- Can have overlap in operating areas with other selected small urban centers
- Must encompass at least eight discrete commercial or residential properties within one square city block.

D. **Must have development features indicative of the required extents of artificial lighting that would simulate the range of built environments encountered during day and night combat missions.** Cultural, or artificial, lighting is defined as the sum of lights that illuminate a developed area at night. Artificial lighting in an urban environment can be a challenge to both air and ground parties when attempting to identify, track, and engage points of interest. This is especially difficult during night operations. Typically, the brightest artificial lighting in an urban environment is associated with street lamps, lights in and on buildings, outdoor entertainment venues, industrial areas, hospitals, airports, and marinas, as well as lights used to enhance scenery near buildings that point directly into the sky (Martin Prosperity Institute 2013; Kyba et al. 2015). Even with light emission ordinances intended to reduce light pollution, the sum light emission from these development features into the sky would represent the majority of night light emitted for each city.

Studies indicate that large urban centers typically have all the aforementioned development features and associated lighting (Martin Prosperity Institute 2013; Kyba et al. 2015). Medium urban centers have many of these features, but to a lesser extent because there is less infrastructure and development required to accommodate the inhabiting populations. Small urban centers are less developed, and emitted light sources are primarily residential areas, interspersed commercial businesses (e.g., retail shops or convenience stores), and hospitals. To accommodate the proposed proficiency training, the selected large, medium, and small urban centers should encompass development features consistent with these analytical observations.

2.3 Alternatives Carried Forward for Analysis

The possible urban center alternatives that meet the purpose of and need for the Proposed Action were identified and evaluated against the selection standards. Twenty-two large, medium, and small urban centers were initially considered for the Proposed Action because they exist within the proximity constraints established to facilitate training briefs and to avoid refueling requirements. However, to be considered adequate to accommodate the proposed Urban CAS training, the urban centers must also: have the population sizes and densities to

simulate the community dynamics of vehicle and pedestrian traffic; be physically distinct from other urban centers; and, must have development features indicative of artificial lighting to simulate the range of built environments encountered during combat. Thus, to be carried forward for analysis as part of the Proposed Action, an urban center must meet all four selection standards listed in **Section 2.2**. **Table 2-3** provides a comparison of urban center alternatives to the selection standards.

As shown in **Table 2-3**, 9 of the 22 urban centers initially considered meet the selection standards identified in **Section 2.2** to be carried forward for analysis in the EA, should USAF decide to proceed with that level of the EIAP. **Table 2-4** provides the list of selected urban centers and the urban center centerpoint locations for their respective 30-NM operating areas.

Figure 2-1 shows the installation, MHRC, existing military airspaces, and military training routes (i.e., instrument routes and visual routes) proximal to the installation and the selected urban centers. Also shown are the proposed operating areas overlying each of the identified urban centers.

For this EA, the analysis of impacts on the human environment and natural resources assumes that the anticipated annual maximum number of Urban CAS proficiency training operations required by the 366 FW would be distributed to any one of the nine urban centers that meet the selection standards. Because Urban CAS training operations already occur on the installation at the maximum proposed operational tempo, and the negligible to minor impacts resulting from these operations have already been analyzed and addressed in accordance with NEPA, this EA will not address impacts on the installation or in the MHRC (Mountain Home AFB 2017).

Table 2-3. Comparison of Urban Center Alternatives to Selection Standards

Urban Center	Selection Standards[1]			
	1	2	3	4
	Proximity to Installation statute miles (NM) [2]	**Population [3]**	**Required Vertical Development or Physical Distinction [4]**	**Development Profile (*as an Indicator of Artificial Lighting*) [5]**
Large (Population >60,000 individuals)				
Boise	45 miles (39 NM) northwest of the installation	691,423	Encompasses multiple buildings and/or structures with vertical development exceeding 10 stories within 4 square city blocks.	Highly developed. Lighting associated with: • 1 large airport, 2 small airports, 4 heliports • 1 bus station • More than 50 educational facilities ranging from primary school through colleges and universities • 46 distinct neighborhoods • approximately 500 commercial businesses • 4 hospitals, 3 hospices, 3 nursing homes • 39 hotels • 1 large outdoor sports/entertainment arena Most common industries include retail, manufacturing, scientific/open technical/professional, tourism, freight (rail, truck, and air), medical, mining, and agriculture.
Meridian	52 miles (45 NM) northwest of the installation	95,623	Is associated with the Boise Metroplex. Does not encompass multiple buildings and/or structures with vertical development exceeding 10 stories within 4 square city blocks.	Highly developed. Lighting associated with: • 1 heliport • 2 bus stations • More than 31 educational facilities ranging from primary school through colleges and universities • 79 commercial businesses • 10 hospitals (includes medical centers, hospice and nursing homes) • 9 hotels Most common industries include manufacturing, construction, retail, professional/ scientific/technical, health care and social assistance, finance and insurance, and educational services.

Urban Center	Selection Standards[1]			
	1	2	3	4
	Proximity to Installation statute miles (NM) [2]	Population [3]	Required Vertical Development or Physical Distinction [4]	Development Profile (*as an Indicator of Artificial Lighting*) [5]
Large (Population >60,000 individuals) (continued)				
Nampa	60 miles (52 NM) northwest of the installation	91,382	Associated with the Boise Metroplex. Does not have multiple buildings and/or structures with vertical development exceeding 10 stories within 4 square city blocks.	Highly developed. Lighting associated with: • 3 small airports and 1 heliport • 1 bus station • More than 37 educational facilities ranging from primary schools through colleges and universities • 90 commercial businesses • 5 hospitals, 3 health care centers, and 7 nursing homes • 9 hotels. Most common industries include construction, manufacturing, retail, agriculture/forestry/fishing and hunting, professional/scientific/technical, accommodations and food services, and public administration.
Medium (Population 10,000 to 60,000 individuals)				
Burley	110 miles (96 NM) southeast of the installation	10,464	Physically distinct from other urban centers and operating areas; surrounded by agricultural lands.	Moderately developed. Lighting associated with: • 1 small airport • 16 educational facilities (primary and college/university) • 36 commercial businesses • 1 hospital and 5 medical centers • 7 hotels. Most common industries include manufacturing, agriculture/forestry/fishing and hunting, retail, and other services (except for public administration).
Caldwell	59 miles (51 NM) northwest of the installation	53,149	Associated with the Boise Metroplex.	Moderately developed. Lighting associated with: • 3 small airports and 1 heliport • 1 bus station • 29 educational facilities (primary to college/university), • 42 commercial businesses • 1 hospital and 4 medical centers • 6 hotels. Most common industries include manufacturing, retail trade, construction, and administrative/support and waste management services.

Urban Center	Selection Standards[1]			
	1	2	3	4
	Proximity to Installation statute miles (NM) [2]	Population [3]	Required Vertical Development or Physical Distinction [4]	Development Profile (*as an Indicator of Artificial Lighting*) [5]
Medium (Population 10,000 to 60,000 individuals) (continued)				
Eagle	51 miles (44 NM) northwest of the installation	24,785	Associated with the Boise Metroplex.	Moderately developed. Lighting associated with: • 1 heliport • 2 bus stations • 8 educational facilities (primary and college/university) • 21 commercial businesses • 2 hospitals and 1 home health center • 1 hotel. Most common industries include manufacturing, professional/scientific/technical services, retail trade, and construction.
Garden City	44 miles (38 NM) northwest of the installation	11,602	Associated with the Boise Metroplex.	Moderately developed. Lighting associated with: • 2 bus stations • 8 educational facilities (primary to college/university) • 15 commercial businesses • 3 hospitals and 4 nursing homes. Most common industries include other services (except public administration), manufacturing, retail, and construction.
Jerome	72 miles (63 NM) southeast of the installation	11,317	Physically distinct from other urban centers; surrounded by agricultural lands. Operating area overlaps with the Twin Falls operating area.	Moderately developed. Lighting associated with: • 1 small airport • 17 educational facilities (primary and college/university) • 19 commercial businesses • 2 hospitals and 1 nursing home • 5 hotels. Most common industries include agriculture/forestry/fishing and hunting, manufacturing, construction, and retail.

Urban Center	Selection Standards[1]			
	1	2	3	4
	Proximity to Installation statute miles (NM) [2]	**Population [3]**	**Required Vertical Development or Physical Distinction [4]**	**Development Profile (*as an Indicator of Artificial Lighting*) [5]**
Medium (Population 10,000 to 60,000 individuals) (continued)				
Kuna	57 miles (50 NM) northwest of the installation	15,900	Associated with the Boise Metroplex	Moderately developed. Lighting associated with: • 3 small airports • 2 bus stations • 18 educational facilities (primary to college/university) • 12 commercial businesses • 4 hospitals, 3 home health centers. Most common industries include retail trade; construction; public administration; and professional, scientific, and technical services.
Mountain Home	8 miles (7 NM) north of the installation	13,480	Physically distinct from other urban centers and operating areas; surrounded by agricultural lands.	Moderately developed. Lighting associated with: • 3 small airports and 1 heliport • 11 educational facilities (primary to college/university) • 37 commercial businesses • 1 hospital and 1 nursing home • 7 hotels. Most common industries include public administration, manufacturing, retail, transportation and warehousing.
Twin Falls [6]	98 miles (85 NM) southeast of the installation	48,260	Physically distinct from other urban centers; surrounded by agricultural lands.	Moderately developed. Lighting associated with: • 1 small airport and 2 heliports • more than 25 educational facilities (primary schools to colleges/universities) • 167 commercial businesses • 5 hospitals, 4 nursing homes, 3 hospice facilities • 1 large outdoor entertainment arena • 10 hotels. Most common industries include retail, manufacturing, construction, food, transportation, and warehousing.

Urban Center	Selection Standards[1]			
	1	2	3	4
	Proximity to Installation statute miles (NM) [2]	Population [3]	Required Vertical Development or Physical Distinction [4]	Development Profile (*as an Indicator of Artificial Lighting*) [5]
Small (Population 400 to 10,000 individuals)				
Bruneau	18 miles (16 NM) south of the installation	701	Encompasses at least eight discrete commercial and/or residential properties within one square city block.	Low-density development. Lighting primarily associated with exiting residences, 1 small airport, and 2 educational facilities serving primary through secondary students Predominant industries are agriculture, forestry, and fishing.
Glenns Ferry	28 miles (24 NM) southeast of the installation	1,235	Encompasses at least eight discrete commercial and/or residential properties within one square city block.	Low-density development. Lighting primarily associated with commercial and transportation facilities and residences. City encompasses: • 1 small airport and 1 heliport • 3 schools serving primary through secondary • 2 hotels. Most common industries supported include education, retail, and health care.
Grand View	20 miles (17 NM) southwest of the installation	441	Encompasses at least eight discrete commercial and/or residential properties within one square city block.	Low-density development. Lighting primarily associated with existing residences and interspersed businesses. City encompasses: • 51 businesses • 1 school serving primary and middle school students • 1 hospital • 1 hotel. Most common industries include agriculture, construction, and manufacturing.
Mountain Home AFB	0 miles	3,238	Encompasses at least eight discrete commercial and/or residential properties within one square city block.	Low-density development. Lighting primarily associated with existing facilities typical of a military air installation including the security gates, streetlights, taxiways and runway, residential areas, and administrative, recreational, and operational buildings.
Hammett [7]	21 miles (18 NM) southeast of the installation	458	Encompasses at least eight discrete commercial and/or residential properties within one square city block.	Low-density development. Lighting primarily associated with existing residences and commercial buildings such as a post office, general store, and trading post.

Urban Center	Selection Standards[1]			
	1	2	3	4
	Proximity to Installation statute miles (NM) [2]	Population [3]	Required Vertical Development or Physical Distinction [4]	Development Profile (*as an Indicator of Artificial Lighting*) [5]
Small (Population 400 to 10,000 individuals) (continued)				
Hot Springs [7]	20 miles (17 NM) southeast of the installation	412	Does not encompass at least eight discrete commercial and/or residential properties within one square city block.	Low-density development. Lighting primarily associated with existing residential and agricultural structures.
King Hill [7]	46 miles (40 NM) southeast of the installation	324	Encompasses at least eight discrete commercial and/or residential properties within one square city block.	Low-density development. Lighting primarily associated with residential properties and commercial buildings.
Mayfield	25 miles (22 NM) northwest of the installation	No recorded population.	Sparsely developed.	Lacks artificial lighting. Area encompasses rural, sparsely developed, unincorporated land that is associated with the outskirts of Boise.
Orchard [7]	25 miles (22 NM) northwest of the installation	No recorded population.	Sparsely developed.	Lacks development required to generate artificial lighting. Unincorporated, generally vacant desert unincorporated land that is associated with the outskirts of Boise.
Oreana [7]	27 miles (23 NM) west of the installation	No recorded population.	Sparsely developed.	Lacks development required to generate artificial lighting. Unincorporated, rural land in Owyhee County.
Prairie [7]	30 miles (26 NM) northeast of the installation	No recorded population.	Sparsely developed.	Lacks development required to generate artificial lighting. Unincorporated land, rural, ranching community in Elmore County.

Notes:

1 – Green indicates the urban center meets selection standards. Red indicates the urban center does not meet selection standard.

2 – Locations of urban centers determined via statute mile distance measurements from the installation boundary to the nearest boundary of each urban center.

3 – Populations presented for the urban centers are from the most recent U.S. Census Bureau (2010 and 2016) population estimates (USCB 2017).

4 – Surrounding development and/or self-containment determined using three-dimensional viewing in Google Earth.

5 – Development profiles provided via City-Data.com (City-Data.com 2017).

6 – Prioritized for selection as the largest medium urban center proximal to the installation.

7 – City-Data.com information to support a complete development profile was not available. Development profile is based upon Google Earth imagery of the area.

Table 2-4. Centerpoints of the Selected Urban Centers for Urban CAS Training

Urban Center	Centerpoint
Large	
Boise	43.606667, -116.223333
Medium	
Mountain Home	43.152333, -115.7055
Burley	42.535743, -113.792795
Twin Falls	42.563083, -114.479917
Small	
Grand View	42.992833, -116.097
Bruneau	42.882167, -115.790667
Glenns Ferry	42.961667, -115.3045
Hammett	42.945731, -115.466186
Mountain Home AFB	43.04963, -115.86562

Tables 2-5 and 2-6 present the analysis envelope of Urban CAS training up to an anticipated maximum of 260 annual training events (6,760 flight operations). The annual numbers of day and day-night training events presented in **Tables 2-4 and 2-5** follow the assumptions specified in **Section 2.1.5**. These numbers represent the maximum number of operations that could be conducted, and the maximum level of training that could result from implementing the Proposed Action at any one location. Because it is not likely that the total number of training events would be conducted at any one urban center, but instead would be conducted across some combination of the nine urban centers, actual impacts from implementing the Proposed Action within the annual Urban CAS proficiency training envelope for each urban center likely would be less than the conservative assessment.

Table 2-5. Annual Envelope of Training Events at each Urban Center

Urban Area	Total Number of Training Events (Training Operations) *		Number of Day Training Events (Training Operations)		Number of Day-Night Training Events (Training Operations)	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Large Urban Centers						
Boise	100 (200)	260 (650)	75 (150)	195 (390)	25 (100)	65 (260)
Medium Urban Centers						
Mountain Home	40 (100)	260 (650)	30 (60)	195 (390)	10 (40)	65 (260)
Burley	20 (50)	260 (650)	15 (30)	195 (390)	5 (20)	65 (260)
Twin Falls	20 (50)	260 (650)	15 (30)	195 (390)	5 (20)	65 (260)
Small Urban Centers						
Grandview	16 (38)	260 (650)	12 (24)	195 (390)	4 (16)	65 (260)
Bruneau	16 (38)	260 (650)	12 (24)	195 (390)	4 (16)	65 (260)
Glenns Ferry	16 (38)	260 (650)	12 (24)	195 (390)	4 (16)	65 (260)
Hammett	16 (38)	260 (650)	12 (24)	195 (390)	4 (16)	65 (260)
Mountain Home AFB	16 (38)	260 (650)	12 (24)	195 (390)	4 (16)	65 (260)

* – Minimum and maximum numbers of day, and day-night training events and training operations for an urban center were calculated using the proposed annual minimum and maximum numbers of training events, respectively, for that urban center.

Table 2.6. Annual Envelope of Day and Day-Night Training Flight Operations at each Urban Center

Day Training Operations [1, 2, 3]

Urban Area	Total Day Training Operations		Total Day Training Sorties		Total Day Training Flight Operations	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Large Urban Centers						
Boise	150	390	390	1014	2280	4056
Medium Urban Centers						
Mountain Home	60	390	156	1014	912	4056
Burley	30	390	78	1014	456	4056
Twin Falls	30	390	78	1014	456	4056
Small Urban Centers						
Grandview	24	390	62	1014	365	4056
Bruneau	24	390	62	1014	365	4056
Glenns Ferry	24	390	62	1014	365	4056
Hammett	24	390	62	1014	365	4056
Mountain Home AFB	24	390	62	1014	365	4056

Day-Night Training Operations [1, 2, 4]

Urban Area	Total Day-Night Training Operations		Total Day-Night Training Sorties		Total Day-Night Training Flight Operations	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Large Urban Centers						
Boise	100	260	260	676	1520	2704
Medium Urban Centers						
Mountain Home	40	260	104	676	608	2704
Burley	20	260	52	676	304	2704
Twin Falls	20	260	52	676	304	2704
Small Urban Centers						
Grandview	16	260	41.6	676	243.2	2704
Bruneau	16	260	41.6	676	243.2	2704
Glenns Ferry	16	260	41.6	676	243.2	2704
Hammett	16	260	41.6	676	243.2	2704
Mountain Home AFB	16	260	41.6	676	243.2	2704

1 - Reported values are rounded to the nearest whole number
2 - A training operation consists of a collection of aircraft departing from the installation to conduct the proposed Urban CAS proficiency training and returning to the installation. One training operation typically involves two aircraft, and thus, two sorties. One sortie involves two flight operations (i.e., one departure flight from the installation and one return flight to the installation) of one aircraft. At least 75 percent of of the total number of day training operations would involve 2 training operations per 24-hour period; 25 percent of day training operations would involve four training operations per 24-hour period.
3 – At least 70 percent of the total number of day training operations would involve 2 aircraft; 30 percent of this total would involve 4 aircraft to accommodate aircrew proficiency training in operational hand-offs.
4- At least 95 percent of day-night training sorties would involve 2 aircraft; 5 percent of this total would involve 4 aircraft to accommodate aircrew proficiency training in operational hand-offs.

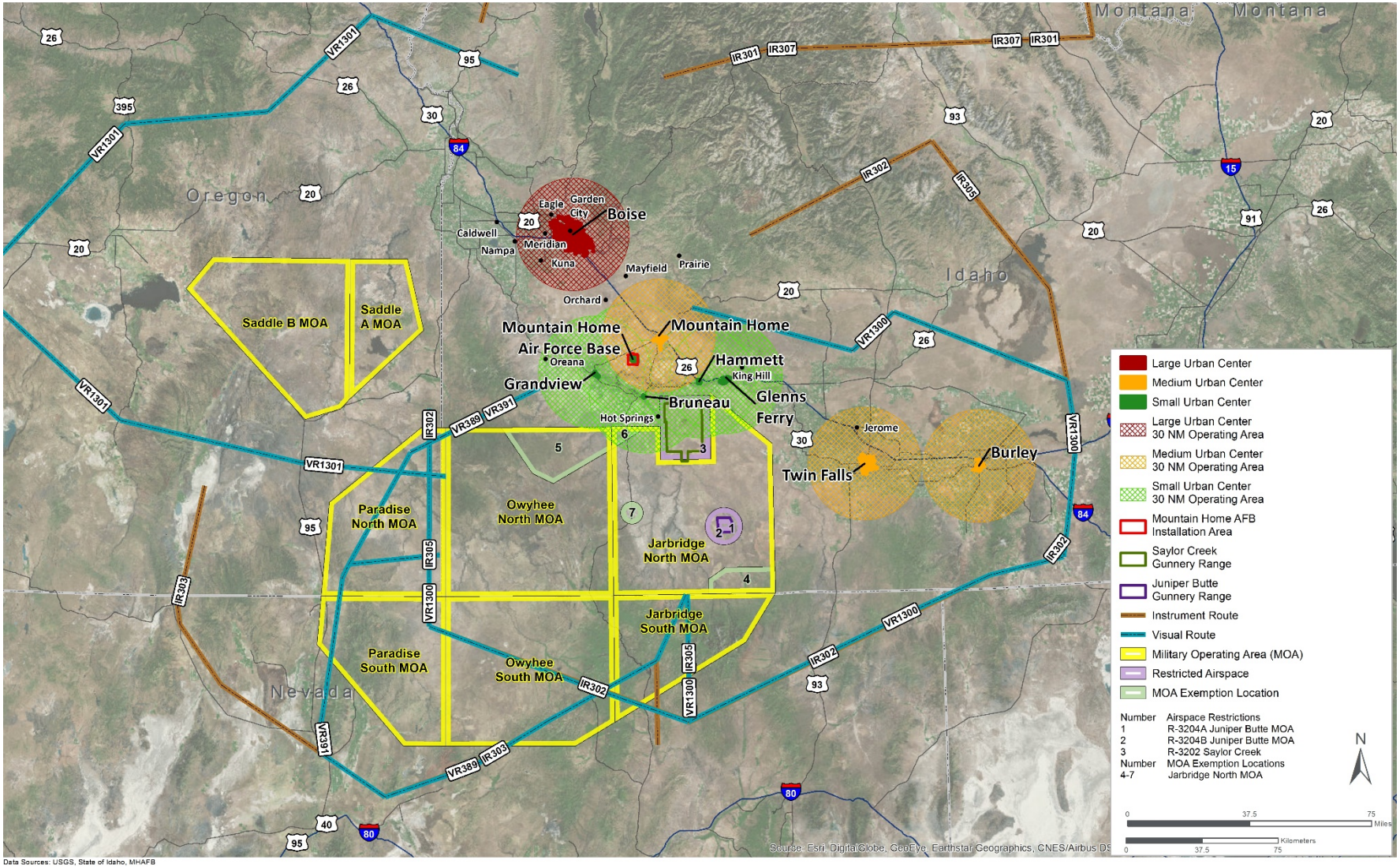

Figure 2-1. Existing Military Airspaces and Proposed Urban Center Operating Areas near Mountain Home AFB

2.4 No Action Alternative

USAF NEPA regulations require consideration of the No Action Alternative. The No Action Alternative serves as a baseline against which the impacts of the Proposed Action and other potential action alternatives can be evaluated. Under the No Action Alternative, USAF would not conduct Urban CAS proficiency training operations with ground support in urban centers around southern Idaho. Instead, Urban CAS aircrew proficiency training would continue to be conducted only on Mountain Home AFB and in the MHRC. Although aircrews would gain some benefit from coordinated ground and flight mission training on the installation and within the MHRC, neither of these assets would accommodate the required fidelity and challenges required to maintain actual proficiency and operational readiness, or to ensure increased survivability of air and ground teams in the Urban CAS combat environment.

The MHRC does not have the required population, vertical development, or artificial lighting to adequately simulate a medium or large urban environment. In fact, the MHRC does not have any capability to simulate the dynamic environment of an urban community. Urban areas provide real-time considerations, much like deployed operations, to ensure the mission would be executed without involving noncombatants and minimizing collateral damage. Further, although the installation and MHRC do have limited vertical development, they do not adequately simulate the challenges presented by the urban canyons of medium and large urban centers that are created by buildings of varying shapes and sizes. This unique problem presents multiple challenges associated with finding and tracking points of interest. Lastly, different levels and types of lighting are difficult to simulate on the MHRC. To provide artificial lighting that would adequately simulate the medium or large urban environment on the MHRC would require development of building with lighting infrastructure on the existing gunnery ranges. To preserve the life of the added lighting infrastructure required for Urban CAS training, the installation would have to limit weapons employment training operations on the gunnery ranges. Because the No Action Alternative fails to meet the purpose of and need for the Proposed Action, as described in **Section 1.5**, it is not a viable alternative.

2.5 Alternatives Considered but Dismissed

2.5.1 Use of All Proximal Urban Centers

Under this alternative, air and ground spaces at all the identified large, medium, and small urban centers that meet the selection criterion for proximity would be considered. Although this alternative would provide several useful training environments, many of the included urban centers would not have the populations or development to accommodate the proposed training. As such, use of these areas do not meet at least one selection standard as identified in **Section 2.2**, would not meet the purpose and need as described in **Section 1.5**, and are not considered further for analysis. As noted in **Table 2-2**, the rationale for exclusion of large, medium, and small urban centers follows:

Large Urban Centers:

- The cities of Nampa and Meridian are physically associated with the Boise-Nampa-Meridian metroplex area. Additionally, the 30-NM operating areas for these cities would overlap with each other and the Boise operating area. Because these associated cities

are smaller than Boise, they are not prioritized for selection. Because these areas do not meet the selection criteria for physical distinction, they are not considered further.

Medium Urban Centers:

- The cities of Caldwell, Eagle, Garden City, and Kuna are physically associated with the Boise metroplex area and would have overlapping operating areas. Because these areas do not meet the selection criteria for physical distinction, they are not considered further for the proposed training.
- Although physically distinct from any other urban centers, the city of Jerome would have an operating area that substantially overlaps the city of Twin Falls operating area. In accordance with the selection criteria requiring distinct and separated operating areas, the city of Jerome is excluded because it is smaller than Twin Falls.

Small Urban Centers:

- The cities of Hot Springs, King Hill, Mayfield, Orchard, Oreana, and Prairie are excluded because they fail to meet the selection criteria for population or physical development required to accommodate the proposed training.

2.5.2 Operations at Other Proximal Installations

Under this alternative, the 366 FW would conduct Urban CAS aircrew proficiency training operations at other installations or MOAs. Installations with the capacity to accommodate air combat support operations include Hill AFB in Utah, Nellis AFB in Nevada, the Urban Target Complex in Arizona, and Eglin AFB in Florida.

- Hill AFB is approximately 277 miles southeast of Mountain Home AFB, and 30 miles north of Salt Lake City, Utah. It supports a population of approximately 28,000 (USCB 2010a). The main base occupies a land area of 6,698 acres andthe associated training range occupies an area greater than 950,000 acres (GlobalSecurity.org 2017a). However, the main base has limited vertical development (Hill AFB 2016). As such, the installation could adequately simulate a small urban center.
- Nellis AFB is approximately 600 miles south of Mountain Home AFB, and approximately 8 miles northwest of Las Vegas, Nevada. The main base occupies 11,300 acres, but the entire installation occupies an area of 3.1 square miles. Nellis AFB supports a population of 3,187 and is developed to accommodate flight operations (USCB 2010b, Global Security 2017b). Vertical development on the installation is consistent with that of a small urban center.
- Urban Target Complex, known as “Yodaville,” is a U.S. Marine Corps weapons and tactical training area approximately 1,000 miles south of Mountain Home AFB and 5 miles north of the U.S./Mexico border (GlobalSecurity.org, 2017c). The complex is in the unpopulated Gunnery Range of the Yuma Training Range Complex in Yuma, Arizona. The ground operating area underlies the military restricted airspace R-2013W and was designed and developed to simulate the small urban centers encountered during combat.

- Eglin AFB is 60 miles east of Pensacola Flordida, approximately 2,300 miles southeast of Mountain Home AFB. The installation supports a population of 2,274; has a land area that occupies 724 square miles, and more than 100,000 square miles of airspace to support testing and training operations; and has the development to simulate a small urban center (USCB 2010b; GlobalSecurity.org 2017d).

The identified installations are not considered viable alternatives to support optimized training because each fails to meet the selection standard for proximity to Mountain Home AFB. Distribution of the proposed Urban CAS proficiency training operations to these installations would present substantial and costly logistical challenges that would reduce training efficiency. Specifically, this alternative would add the following requirements: 1) fly clean F-15E aircraft to the installations, 2) schedule and transport JTAC support teams, 3) provide or schedule aerial refueling and tanker support, and 4) provide maintenance crews and equipment at the selected host location. Further, although these installations physically have available air and ground spaces to accommodate the proposed flight and ground activities, each installation would only simulate a small urban center environment. This operating environment is already simulated at Mountain Home AFB. Finally, none of these installations has the capacity meet the selection standards for population, extents of vertical development, and artificial lighting to adequately simulate large and medium urban centers, as identified in **Section 2.2.** Therefore, this alternative would not meet the purpose and need as described in **Section 1.5**, and is not considered further for analysis.

2.6 Identification of the Preferred Alternative

USAF has identified implementation of the Proposed Action in nine urban centers that meet the selection standards listed in **Table 2-3** as the preferred alternative.

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A

Public and Stakeholder Coordination List

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Appendix A: Public and Stakeholder Coordination List

Federal Agencies

Bureau of Land ManagementUnited States Fish and Wildlife Service

United States Department of Agriculture-United States Forest Service

United States Environmental Protection Agency, Region 10

Federal Aviation Administration

Federal Political Representatives

Idaho Senators

Idaho Congressional Representatives, Districts 1 and 2

State Agency Contacts

Idaho Army National Guard

Idaho Department of Lands

Idaho State Historic Preservation Officer

Special Assistant for Military Affairs

Idaho Department of Agriculture

Idaho Fish and Game

Idaho Department of Parks and Recreation

Idaho Transportation Department

State Political Representatives

Governor of Idaho

Idaho House of Representatives, Districts 22 and 23

Idaho Senate, District 23

Oregon Senate, District 47

Local Agencies and Officials

Ada County Commission, District 1

Mayor of Boise

Boise Metro Chamber of Commerce

Mayor of Burley

Owyhee Board of Commission, Districts 1 and 2

Mayor of Grand View

Mayor of Marsing

Elmore County Commission, Districts 1, 2, and 3

Mayor of Mountain Home

Mountain Home Chamber of Commerce

Mountain Home City Council

Mayor of Glenns Ferry

Glenns Ferry Chamber of Commerce

Mayor of Twin Falls

Twin Falls County Board of Commission, Districts 1, 2, and 3

Twin Falls Chamber of Commerce

Tribal Contacts

Burns Paiute Tribe

Northwestern Band of the Shoshone Nation

Paiute-Shoshone Tribes of Fort McDermitt

Shoshone-Bannock Tribes

Shoshone-Paiute Tribes of Duck Valley

Non-Governmental Organizations

Idaho Conservation League

Idaho Rivers United

Idaho Wildlife Federation

Sierra Club

Western Watersheds Project

Sierra Club Middle Snake Group

The Nature Conservancy

The Wilderness Society

Wildlands Defense

Libraries

Boise Public Library

Bruneau District Library

Glenns Ferry Public Library

Eastern Owyhee County Public Library

Mountain Home AFB Library

Mountain Home Public Library

Twin Falls Public Library