Final

Environmental Assessment

for Beddown of Additional
Republic of Singapore Air Force (RSAF)
F-15SGs at
Mountain Home Air Force Base, Idaho

June
2018

ABBREVIATIONS AND ACRONYMS

°F	degrees Fahrenheit
ACM	asbestos-containing material
AFB	Air Force Base
AFI	Air Force Instruction
AFMAN	Air Force Manual
AGE	Aerospace Ground Equipment
AGL	above ground level
APE	area of potential effect
BASH	bird/wildlife aircraft strike hazard
BLM	Bureau of Land Management
BMP	best management practice
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
dBP	peak noise level
de minimis	of minimal importance
DNL	day-night sound level
DoD	Department of Defense
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EISA	Energy Independence and Security Act
EO	Executive Order
ESA	Endangered Species Act
ESCP	Erosion and Sediment Control Plan
FS	Fighter Squadron
FW	Fighter Wing
FY	Fiscal Year
GHG	greenhouse gas
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IAPA	Idaho Administrative Procedures Act
JBR	Juniper Butte Range
LBP	lead-based paint
L_{dnmr}	onset rate-adjusted monthly day-night average sound level
L_{eq}	equivalent sound level
L_{max}	maximum sound level
MBTA	Migratory Bird Treaty Act
MTR	military training route
MHRC	Mountain Home Range Complex
mm	millimeter(s)
MOA	military operations area
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register Of Historic Places
NSA	noise sensitive area
O_3	ozone
OSHA	Occupational Safety And Health Administration
PAA	Primary Aerospace Vehicle Authorized
PCB	polychlorinated biphenyl
pCi/L	picocuries per Liter
$PM_{2.5}$	particulate matter less than or equal to 2.5 microns in diameter
PM_{10}	particulate matter less than or equal to 10 microns in diameter
ppb	parts per billion
PPE	personal protective equipment
ppm	parts per million
QD	quantity-distance
RCRA	Resource Conservation and Recovery Act
RSAF	Republic of Singapore Air Force
ROI	region of influence
SCR	Saylor Creek Range
SIP	State Implementation Plan
SEL	sound exposure level
SHPO	State Historic Preservation Office
SO_2	sulfur dioxide
SWMUs	solid waste management units
SWPPP	stormwater pollution prevention plan
tpy	tons per year
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Name of the Proposed Action

Environmental Assessment (EA) for Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho

Purpose of and Need for the Proposed Action

The purpose of the Proposed Action is to expand the RSAF training mission at Mountain Home AFB to maintain maximum readiness for RSAF forces. Mountain Home AFB provides a location for the RSAF to train with the F-15SG purchased from the U.S. Air Force (USAF) as a part of the foreign military sales program (identified as the Peace Carvin V program), under the 366 Fighter Wing, in accordance with the Letter of Offer and Acceptance between the United States and Singapore. The Proposed Action is needed because the Republic of Singapore has limited airspace and availability to train, and to continue building the USAF relationship and interoperability with the Singapore armed forces. The Proposed Action would provide training for effective combat readiness of an important partner nation, fulfilling the need to train as a team to perform in a multinational force structure.

Description of the Proposed Action and Alternatives

Proposed Action. USAF proposes to increase the number of permanently assigned RSAF F-15SG aircraft at Mountain Home AFB from fourteen to twenty, in accordance with a Letter of Request submitted by the Singapore Ministry of Defense and the RSAF. The Proposed Action would include increases in the number of airframes, support personnel, aircraft operations, and two types of inert munitions expenditures. It would also include construction and renovation of supported facilities on the installation. Construction and renovation to support the beddown would occur from 2018 through 2020, and the increase in airframes, personnel, aircraft operations, and munitions use would begin in 2019. All aircraft operations would take place within existing military training routes and airspace, and additions to or alterations of airspace are not proposed. Additionally, all munitions expenditures would take place within existing military range training areas currently authorized for munitions use, and changes or additions to the range areas are not proposed.

Alternative 1- Construction Alternative. USAF would conduct all activities described under the Proposed Action and would also construct four munitions storage igloos and an additional facility extension. However, under Alternative 1, USAF would not renovate one facility proposed for renovation under the Proposed Action.

No Action Alternative. USAF National Environmental Policy Action 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 beddown additional RSAF F-15SGs at Mountain Home AFB. The No Action Alternative would not meet the purpose of and need for the Proposed Action and would not allow RSAF to expand their training mission at Mountain Home AFB. The No Action Alternative would limit RSAF's ability to maintain maximum readiness for RSAF forces and USAF's ability to train with an important partner nation, and

would not fulfil the need for USAF and the RSAF to train as a team to perform in a multinational force structure.

Summary of Environmental Effects

The analysis of environmental effects focused on the following environmental resources: noise, air quality, soils, cultural resources, water, biological resources, socioeconomics, health and safety, and hazardous materials and waste management. A cumulative effects assessment was also conducted. Details of the environmental consequences can be found in the *Environmental Assessment (EA) for Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base, Idaho,* which is hereby incorporated by reference. The analysis in the EA for each of the environmental resource areas previously noted identified negligible to minor adverse effects under the Proposed Action. Potential environmental effects are not expected to be significant.

Conclusion

Based on the description of the Proposed Action as set forth in the EA, all activities were found to comply with the criteria or standards of environmental quality and were coordinated with the appropriate federal, state, and local agencies. The Draft EA and this FONSI were made available to the public for a 30-day review period. Agencies were coordinated with throughout the EA development process, and their comments were incorporated into the analysis of potential environmental impacts performed as part of the EA.

Finding of No Significant Impact

Based on the information and analysis presented in the attached EA, which was prepared in accordance with the requirements of the National Environmental Policy Action, the Council on Environmental Quality regulations, implementing regulations set forth in 32 Code of Federal Regulations § 989 (*Environmental Impact Analysis Process*), as amended, and based on review of the public and agency comments submitted during the 30-day public comment period, I conclude that neither the Proposed Action or Alternative 1 would have significant environmental impacts, either cumulatively or with other projects at or near Mountain Home, AFB Idaho, that preparation of an Environmental Impact Statement is unnecessary, and that signing this FONSI completes the environmental impact analysis process.

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JOSEPH D. KUNKEL, Colonel, USAF
Commander, 366th Fighter Wing

Attachment: *Environmental Assessment (EA) for Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home AFB, Idaho.*

Cover Sheet

Final
Environmental Assessment
Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base, Idaho

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

Affected Location: Mountain Home Air Force Base, Idaho.

Report Designation: Final Environmental Assessment (EA).

Abstract: This EA was prepared in compliance with the U.S. Air Force's *Environmental Impact Analysis Process* for the proposed beddown of additional Republic of Singapore Air Force F-15SG aircraft under the 366th Fighter Wing at Mountain Home Air Force Base. The beddown would include an increase in the number of F-15SGs stationed at the installation from 14 to 20 aircraft; construction of support facilities and infrastructure; and increases in personnel, aircraft operations, and inert munitions use. Inquiries regarding this document should be directed by email to Ms. Noelle Shaver at noelle.shaver@us.af.mil, or by postal mail at:

Ms. Noelle Shaver
RE: RSAF Beddown EA
366 FW A7/IE
1030 Liberator
Mountain Home AFB, Idaho 83648

FINAL

ENVIRONMENTAL ASSESSMENT

FOR

BEDDOWN OF ADDITIONAL

REPUBLIC OF SINGAPORE AIR FORCE (RSAF) F-15SGS

AT

MOUNTAIN HOME AIR FORCE BASE, IDAHO

AIR COMBAT COMMAND

JUNE 2018

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1. Purpose of and Need for the Proposed Action

1.1 Introduction

This Environmental Assessment (EA) was prepared in compliance with the U.S. Air Force's (USAF's) *Environmental Impact Analysis Process* (EIAP) for the proposed beddown of additional Republic of Singapore Air Force (RSAF) F-15SG aircraft, under the 366th Fighter Wing (FW), at Mountain Home Air Force Base (AFB). This EA analyzes 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 this EA is carried out in compliance with the National Environmental Policy Act (NEPA); the regulations implementing NEPA (Title 40 Code of Federal Regulations [CFR] §§ 1500–1508); and the USAF implementing regulation for NEPA, the EIAP, Air Force Instruction (AFI) 32-7061, which adopts 32 CFR § 989, as amended, as the controlling document for the EIAP.

1.2 Organization of this Document

This EA is organized into six sections plus appendices. **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** provides existing conditions and analyses of potential impacts from the Proposed Action and alternatives. **Section 4** provides analysis of potential cumulative impacts. **Section 5** lists the preparers of this document. **Section 6** lists the references used in the preparation of this document. **Appendix A** includes the public and stakeholder coordination list. **Appendix B** includes government-to-government coordination materials and Section 106 consultation materials.

1.3 Background

The mission at Mountain Home AFB is to ensure combat readiness for short-notice worldwide Air Expeditionary Force deployments and contingency operations (MHAFB 2017c). Mountain Home AFB has expanded, constricted, closed, and re-opened several times. Mountain Home AFB has a 74-year history of adapting to the effects of changing USAF missions, from the World War II long-range, heavy bombers (B-24s, B-29s, and B-47s), to Cold War-era modern fighters (F-16s and F-15Cs) and bombers (B-1Bs), to air refueling squadrons (KC-135s), to the current F-15E/F-15SG squadrons. The F-15E is a variant of the F-15 Eagle operated by USAF, and the F-15SG is a variant of the F-15 Eagle operated by RSAF. Since 1990, the number of aircraft based at Mountain Home AFB has varied from a high of 76 to its present level of 56.

The 428th Fighter Squadron (FS) is the U.S. flagged FS of the Peace Carvin V program, a long-term partnership with the Republic of Singapore (Singapore). The squadron is dedicated to the training of Singaporean aircrew in the F-15SG, the country's newest fighter platform. The combined efforts of this program help ensure a strong U.S. relationship with Singapore, a critical partner in the Pacific region, while helping Singapore project airpower into the next generation (MHAFB 2017c). RSAF has signed a Letter of Offer and Acceptance with the U.S. government to establish a 20-plus year Continental United States presence to train on and operate their F-15SG aircraft.

At present, Mountain Home AFB has three fighter squadrons—two F-15E squadrons from 366 FW and the RSAF squadron of F-15SGs under operational control of the 366 FW (see **Table 1-1**).

Table 1-1. Composition of 366 FW in 2017

Aircraft Type[1]	Aircraft Count	Squadron
F-15E	18	389th Fighter Squadron
F-15E	24	391st Fighter Squadron
RSAF F-15SG	14	428th Fighter Squadron
Total	**56**	

[1]Includes Primary Aerospace Vehicle Authorized (PAA) only

Each squadron within the 366 FW consists of Primary Aerospace Vehicle Authorized (PAA) aircraft and Backup Aerospace Vehicle Authorized. PAA is defined as those aircraft authorized for performance of the unit's mission. Backup aircraft, as the designation implies, represent those authorized over and above the PAA to allow for scheduled and unscheduled depot level maintenance, modifications, inspections and repairs, and certain other mitigating circumstances without reduction of aircraft available for the assigned mission. For the purposes of this analysis, this EA focuses on PAA aircraft (see **Table 1-1**) because only those aircraft have the potential to affect the environment through flight operations and associated activities.

1.4 Project Location Description

Mountain Home AFB, located in southwestern Idaho approximately 40 miles southeast of Boise and 8 miles southwest of Mountain Home (see **Figure 1-1**), supports the 366 FW. The installation occupies 6,844 acres of land and includes the Small Arms Range, Rattlesnake Radar Station, Middle Marker and C.J. Strike Dam Recreation Annex, and the Mountain Home Range Complex (MHRC). The MHRC supports air-to-air training, air-to-ground bombing and gunnery training, and Electronic Combat training activities. The MHRC is managed by the 366 FW and comprises over 9,026 square nautical miles of airspace and multiple ground-based training ranges, all of which are critical to the readiness of combat aircrews from Mountain Home AFB. Aircraft based at Mountain Home AFB conduct over 90 percent of their flight training in the MHRC. Additionally, other aircraft from Air Combat Command, Air National Guard, sister services, and foreign allies regularly train in the MHRC. The MHRC includes two air-to-ground gunnery ranges— Saylor Creek Range (SCR) (R-3202) and Juniper Butte Range (JBR) (R-3204). The MHRC airspace is composed of the Owyhee, Jarbidge, and Paradise (East and West) Military Operations Areas (MOAs), and associated Air Traffic Control Assigned Airspace.

1.5 Purpose of and Need for the Proposed Action

Background. Following World War II, the U.S. government established a policy of providing training to military personnel from countries allied and partnered with the United States and such training continues today. Changes in international requirements and reductions in U.S. military budgets have established a need for the military forces of many nations to work together to meet specific threats. This combined military capability permits substantial reductions in each

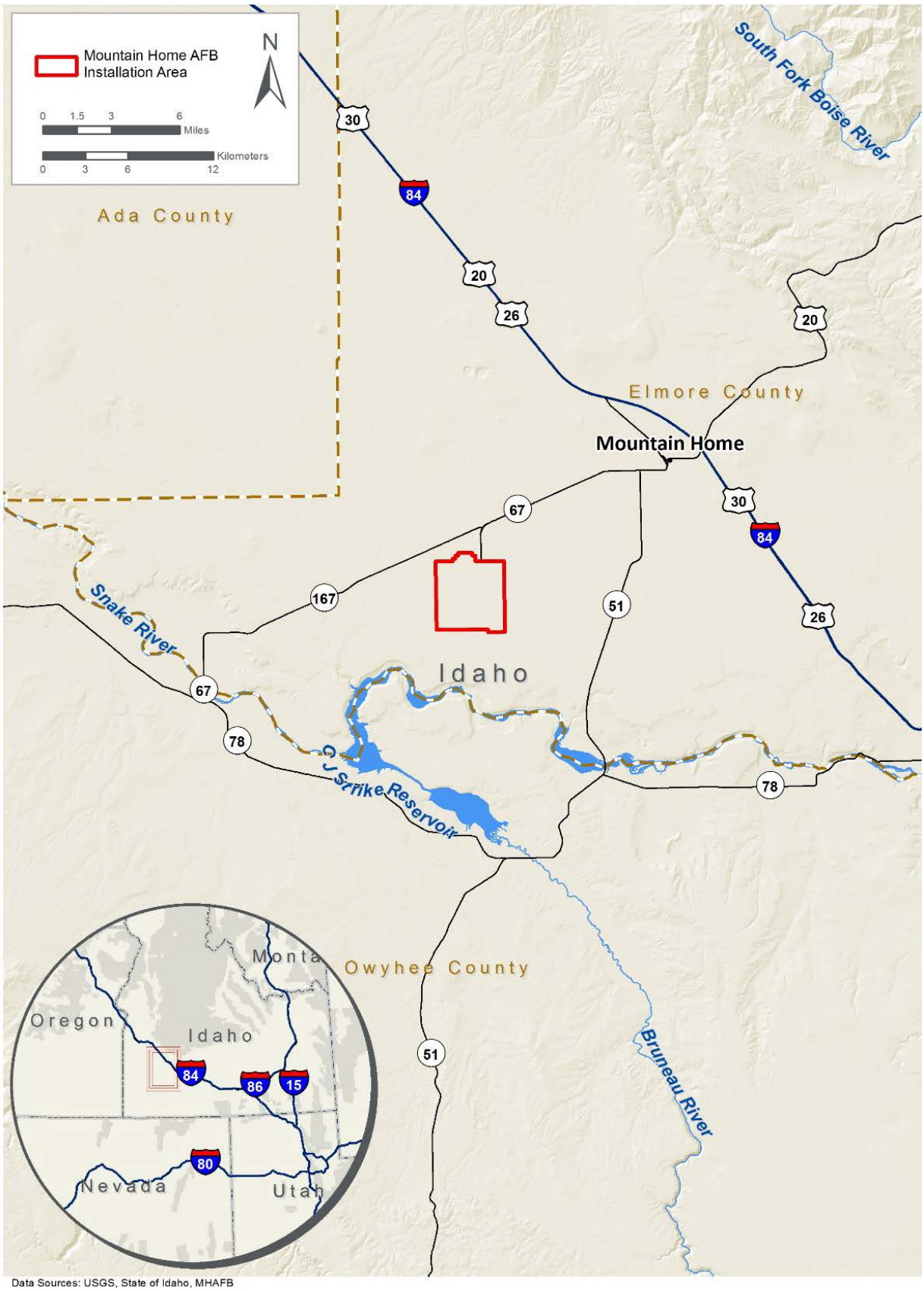

Figure 1-1. Mountain Home AFB and Surrounding Area

nation's military force while also creating the larger force necessary to respond to international requirements. This philosophy establishes a need for military personnel of different nations to achieve a common high standard of training and proficiency and to forge the strongest possible team.

Purpose. The purpose of the Proposed Action is to expand the RSAF training mission at Mountain Home AFB to maintain maximum readiness for RSAF forces. Mountain Home AFB provides a location for the RSAF to train with the F-15SG purchased from USAF as part of the foreign military sales program (identified as the Peace Carvin V program), under the 366 FW, in accordance with the Letter of Offer and Acceptance between the United States and Singapore. Joint training shows continued U.S. commitment to support foreign allies' and partners' training requirements in a combined operational environment.

Need. The Proposed Action is needed because Singapore has limited airspace and availability to train, and to continue building USAF relationship and interoperability with the Singapore armed forces. The Proposed Action would provide training for effective combat readiness of an important partner nation, fulfilling the need to train as a team to perform in a multinational force structure.

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 Council on Environmental Quality (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. 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 laws and regulations, including NEPA. USAF's implementing regulation for NEPA is the EIAP, AFI 32-7061, which adopts 32 CFR § 989, as amended, as the controlling document for the EIAP.

In compliance with NEPA, USAF will decide if preparation of an EA is the appropriate level of the EIAP for the Proposed Action described in **Section 2.1**. The EA would identify 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 floodplains and wetlands in accordance with AFI 32-7064, *Integrated Natural Resources Management*, which includes the USAF guidance for compliance with Executive Order (EO) 11988, *Floodplain Management*, and with EO 11990, *Protection of Wetlands*. USAF has not identified any floodplains or wetlands that have the potential to be disturbed by the Proposed Action described in **Section 2.1**.

1.7 Intergovernmental and Stakeholder Coordination

NEPA requirements help ensure that 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, *Intergovernmental Review of Federal Programs*, as amended by EO 12416, *Intergovernmental Review of Federal Programs*, requires federal agencies to provide opportunities for input from 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 provides these relevant agencies and groups the opportunity to comment on the Proposed Action and potential impacts that could occur. A Notice of Availability for the Draft EA was published in the *Mountain Home News*. Copies of the Draft EA also were sent to local libraries. Public and agency comments on the Draft EA are considered prior to a decision being made on whether or not to sign a Finding of No Significant Impact.

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2. Description of the Proposed Action and Alternatives

This section describes the Proposed Action and alternatives considered, including the No Action Alternative. As discussed in **Section 1.6**, 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 effects 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 increase the number of permanently assigned RSAF F-15SG aircraft at Mountain Home AFB from 14 to 20, in response to a Letter of Request submitted by the Singapore Ministry of Defense and the RSAF. The RSAF training squadron would continue to operate as a separate fighter squadron under the operational control of the 366 FW and there would be no change in the mission for the installation. This section presents a description of the activities and implementing actions associated with the Proposed Action. The Proposed Action includes the following activities:

- an increase in aircraft at Mountain AFB
- an increase in support personnel
- an increase in aircraft operations
- an increase in inert munitions use
- construction and renovation of supporting facilities.

Construction and renovation to support the beddown would occur from 2018 through 2020. The increase in aircraft, personnel, aircraft operations, and inert munitions use would begin in 2019.

2.1.1 Aircraft

The Proposed Action would place six additional F-15SGs at Mountain Home AFB by the second quarter of 2019, for a total of 62 aircraft on the installation. **Table 2-1** provides a breakdown of the proposed inventory changes associated with the Proposed Action.

Table 2-1. Aircraft Inventory Changes Associated with the Proposed Action

Aircraft [a]	Baseline	Proposed Action Change	Proposed Action
F-15E	42	0	42
F-15SG	14	+6	20
Total	**56**	**+6**	**62**

[a] Includes PAA only

2.1.2 Personnel

The Proposed Action would require basing an additional 207 operations and support personnel to sufficiently operate and maintain the additional aircraft and to provide necessary support services. This would include active-duty, U.S. and RSAF personnel (officer, enlisted, and civilian) and contractor support. Overall, installation personnel would increase 5 percent (see **Table 2-2**) under the Proposed Action. It is assumed that the additional personnel would also be accompanied by dependents. Family members and dependents are estimated at 2.5 times 65 percent of military and civilian personnel. Based on this estimate, the total personnel and dependent population would increase by approximately 6 percent. The transition of additional personnel is expected to take place in 2019 concurrent with the basing of aircraft. Because of limited on-installation housing availability, it is assumed that all personnel would reside in off-installation housing, either in nearby communities or in Boise, Idaho.

Table 2-2. Proposed Personnel Changes

Personnel	Baseline on Installation [a]	Proposed Action Change	Total Under Proposed Action
Military	3,364	+177	3,541
Civilian	910	+30	940
Total Installation Personnel	**4,274**	**+207**	**4,481**
Military Dependents and Family Members	4,303	+336	4,639
Total Installation Personnel and Dependents	**8,577**	**+543**	**9,120**

[a] Source: MHAFB 2015

2.1.3 Aircraft Operations

Throughout this EA, three phrases are used to describe aircraft operations: sortie, airfield operation, and sortie-operation. A sortie consists of a single military aircraft flight from takeoff through landing. An airfield operation represents the single movement or individual portion of a flight in the installation airfield airspace environment, such as a departure, an arrival, or a closed pattern. A sortie-operation is defined as the use of one airspace unit, such as a training route, by one aircraft. Sortie-operations apply to flight activities outside the airfield airspace environs. Each time a single aircraft flies in a different airspace unit, one sortie-operation is counted for that unit. As an example, on a typical training mission at Mountain Home AFB, an aircraft makes an initial takeoff at the airfield and flies to a MOA (one sortie-operation at the MOA) to practice flight maneuvers, proceeds to another MOA to practice a different type of flight maneuver (one sortie-operation at the range), and then returns to the airfield. This generates two sortie-operations.

2.1.3.1 AIRFIELD FLIGHT OPERATIONS

The beddown of six additional F-15SGs at Mountain Home AFB would include an increase in total airfield operations and sorties. As shown in **Table 2-3**, annual sorties at the airfield would increase by approximately 12 percent and annual operations would increase by approximately 14 percent. It is assumed that approximately 10 percent of total airfield operations and sorties would be conducted during the environmental night, from 10 p.m. until 7 a.m.

Table 2-3. Current and Proposed Annual Airfield Sorties and Operations

Aircraft	Departures [b]	Arrivals [b]	Closed Patterns	Total
F-15E (389 FS/391 FS)	6,577	6,577	22,688	35,842
F-15SG (RSAF 428 FS)	2,782	2,782	15,459	21,023
Transient	1,847	1,847	0	3,694
Total Baseline Operations [a]	**11,206**	**11,206**	**38,147**	**60,559**
Proposed Action Increase F-15SG (RSAF 428 FS)	1,520	1,520	6,625	9,665
Total Baseline and Proposed Action	**12,726**	**12,726**	**44,772**	**70,224**
Percent Change	12%	12%	15%	14%

[a] Source: USAF 2017
[b] The number of sorties is equal to the number of arrivals or the number of departures.

2.1.3.2 TRAINING FLIGHT OPERATIONS

Aircraft from Mountain Home AFB currently conduct training operations in MOAs and overlying Air Traffic Control Assigned Airspaces, restricted areas, and Military Training Routes (MTRs). No aspect of the Proposed Action would alter the structure or overall nature or use of the local or remote airspace units. Rather, changes to the aircraft inventory at Mountain Home AFB would only result in minor modifications to the amount of activity in the airspace.

Mountain Home AFB uses five MOAs within the region: Jarbidge, Owyhee, Paradise East, Paradise West, and Saddle (see **Figure 2-1**). While F-15Es and F-15SGs have dual air-to-air and air-to-ground roles as reflected in their flight profiles, the air-to-ground function is primary. Primary air-to-ground training occurs in the Jarbidge MOA, whereas use of the other MOAs tends to emphasize higher altitude air-to-air training. However, low-altitude training does occur in the Owyhee MOA. The higher floors (base altitudes) of the Paradise East, Paradise West, and Saddle MOAs preclude low-altitude flight.

Table 2-4 presents the projected changes in annual sortie-operations for the MOAs associated with Mountain Home AFB. As this table indicates, sortie-operations would increase 17 percent overall under the Proposed Action. Of this increase, there would be a 17 percent increase in day sortie-operations for all MOAs and a 21 percent increase in night sortie-operations for all MOAs. **Table 2-5** provides the flight profiles for each MOA and the day/night sortie-operations. The additional F-15SGs would also employ supersonic flight within the Owyhee and Jarbidge MOAs where such activity is already authorized. Approximately 4 percent of all operations within the Owyhee and Jarbidge MOAs would include supersonic flight between 10,000 feet above ground level (AGL) and 30,000 feet above mean sea level (MSL).

Existing MTRs are flown by the RSAF and provide opportunities for low-altitude training within a defined corridor (see **Figure 2-1**). The addition of six F-15SG aircraft to the RSAF squadron would increase MTR utilization. There would be an increase of 62 day/night annual sortie-operations in the MTRs, as shown in **Table 2-6**. It is assumed that approximately 13 percent of total sortie-operations in the MTRs would be conducted during the environmental night, from 10 p.m. until 7 a.m.

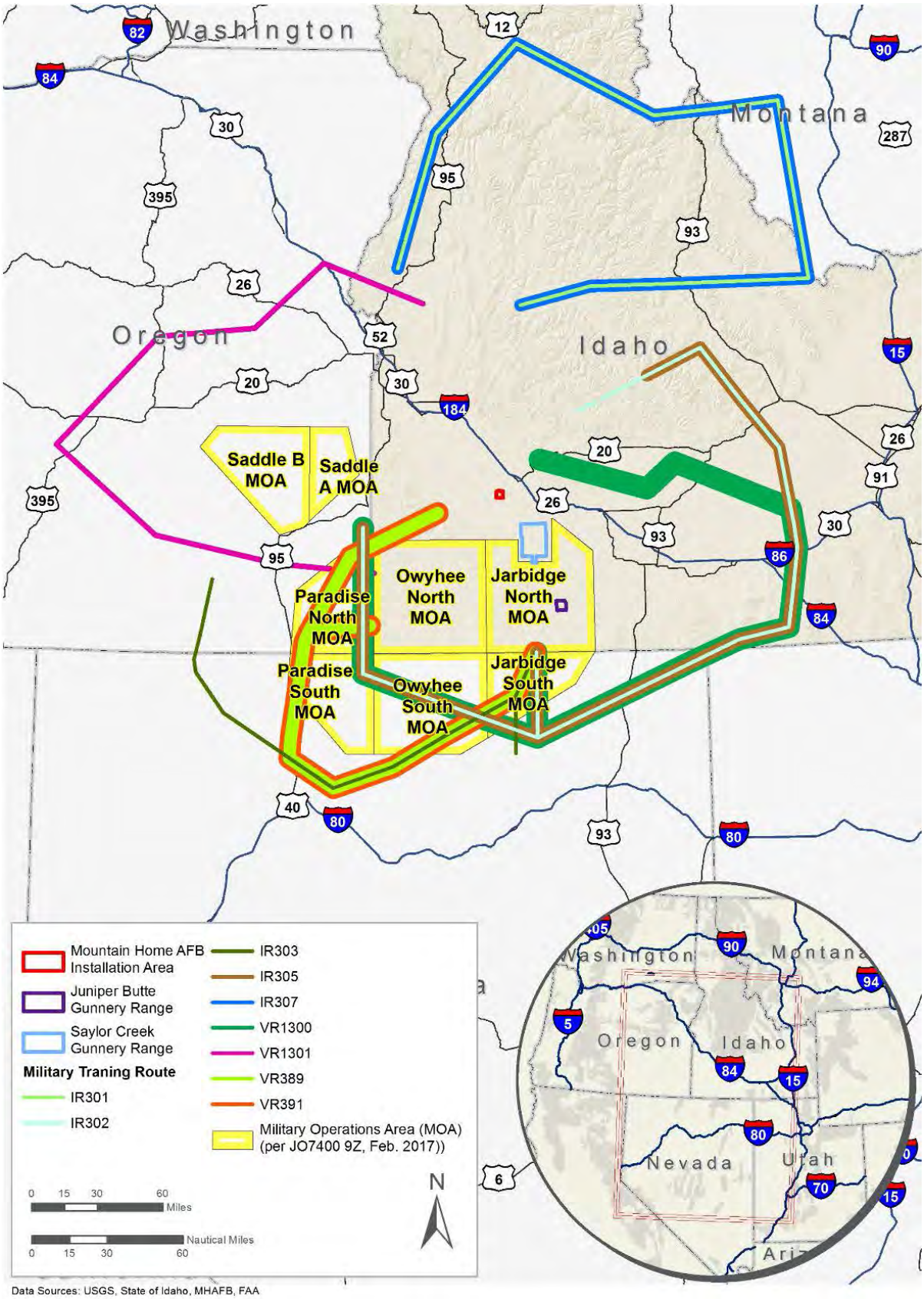

Figure 2-1. Mountain Home AFB Training Airspace

Table 2-4. Current and Proposed MOA F-15E/F-15SG Day/Night Training Annual Sortie-Operations

Operation Type		MOA				
		Jarbidge N/S	**Owyhee N/S**	**Paradise N/S**	**Saddle A/B**	**All MOAs**
Day Sortie-Operations	Baseline	10,135	9,030	7,912	2,692	29,769
	Proposed Increase	+2,031	+1,818	+1,586	+542	+5,977
	Total Under Proposed Action	**12,166**	**10,848**	**9,498**	**3,234**	**35,746**
	Percent Increase	+17%	+17%	+17%	+17%	+17%
Night Sortie-Operations	Baseline	1,125	1,003	878	299	3,305
	Proposed Increase	+304	+272	+237	+81	+894
	Total Under Proposed Action	**1,429**	**1,275**	**1,115**	**380**	**4,199**
	Percent Increase	+21%	+21%	+21%	+21%	+21%
Total Day/Night Sortie-Operations	Baseline	11,260	10,033	8,790	2,991	33,074
	Proposed Increase	+2,335	+2,090	+1,823	+623	+6,871
	Total Under Proposed Action	**13,595**	**12,123**	**10,613**	**3,614**	**39,945**
	Percent Increase	+17%	+17%	+17%	+17%	+17%

Table 2-5. F-15E/F-15SG Flight Profiles

MOA	Average Duration in MOA (minutes)	Percent Time at Altitude (feet)		
		500–2,000	**2,000–10,000**	**>10,000**
Jarbidge N/S	38	19%	37%	44%
Owyhee N/S	20	13%	17%	70%
Paradise N/S	40	N/A	N/A	100%
Saddle A/B	60	N/A	N/A	100%

Table 2-6. Current and Proposed MTR F-15E/F-15SG Day/Night Training Annual Sortie-Operations

Operation Type		MTR									
		IR-301	**IR-302**	**IR-303**	**IR-305**	**IR-307**	**VR-1300**	**VR - 1301**	**VR-389**	**VR-391**	**All MTRs**
Total Day/ Night Sortie-Operations	Baseline	73	209	82	62	22	10	140	111	51	583
	Proposed Increase	+6	+8	+12	+26	+1	+1	+2	+3	+3	+62
	Total Under Proposed Action	**79**	**217**	**94**	**88**	**23**	**11**	**142**	**114**	**54**	**822**
	Percent Increase	8%	4%	13%	30%	4%	9%	1%	3%	6%	8%

2.1.4 Munitions Use

For the F-15E and F-15SG, training involves use of defensive countermeasures (chaff and flares), strafing (20-millimeter [mm]), and ordnance (inert and live, including both guided and unguided munitions) to ensure bombing proficiency and to simulate combat-loaded aircraft. The beddown would include an increase in the expenditures of certain munitions, although only a portion of these munitions would be expended at the MHRC under the purview and authorization of the 366 FW. Live ordnance use does not occur at MHRC and the 366 FW completes this training at other existing training ranges with authorization from the managing unit. Proposed increases in flare and inert ordnance use at the MHRC are within the authorizations previously analyzed in the *2007 Final Environmental Assessment for Republic of Singapore Air Force Beddown, Mountain Home AFB*; the *2010 Final Environmental Assessment for Proposed Airspace Changes for Paradise East and Paradise West Military Operations Areas at Mountain Home Air Force Base Idaho;* and the *2017 Final Environmental Assessment for Operational Changes and Range Improvements in the Mountain Home Range Complex* and are not included for analysis in this EA.

All proposed increases in munitions would be inert/training practice rounds, and no increases in live munitions at the MHRC are anticipated. **Table 2-7** includes the proposed annual increases and associated range use for munitions.

Table 2-7. Proposed Annual Munitions Use Increases at MHRC

Munitions	Baseline at MHRC	Proposed Increase	Total	Percent Increase	Range Use
20-mm Training Practice (inert)	197,160	+18,000	215,160	+8%	SCR
Chaff	66,686	+15,200	81,886	+19%	MHRC

2.1.5 Facilities and Infrastructure

USAF would address space limitations in existing RSAF facilities to provide sufficient room for additional personnel and supplies. Proposed facility construction and modifications to support the beddown are listed in **Table 2-8**. The proposed redevelopment would take place within the existing developed areas on Mountain Home AFB, as shown in **Figure 2-2**. Repairs and refurbishment of existing munitions storage facilities would be needed to support the Proposed Action; however, these repairs are also needed to support existing operations at Mountain Home AFB and have been addressed in previous EIAP documentation. Therefore, the refurbishment of the existing munitions storage facilities will not be discussed in this EA.

Eight facility projects directly related to the beddown would be implemented in 2018 through 2020. Upgrades or additions to the utilities infrastructure are not proposed. The construction and modifications would disturb approximately 2.6 acres and increase impervious surface on the installation by approximately 2.0 acres. Prior to and during construction, temporary trailers would be installed on the ground surface to provide additional office space for personnel. It is assumed that if personnel needed to be temporarily relocated during construction, they would be accommodated either in existing facilities or these temporary trailers. Trailers would not require use of generators and would be removed once construction was complete.

Table 2-8. Proposed Facility Construction and Modifications

Project	Description	Size (square feet)	Ground Disturbance?	Impervious Surface?
New Construction and Facility Additions				
Squadron Operations facility, Building 1364	Construct an addition. Also includes renovations.	10,000	Yes	Yes
Aircraft Maintenance Unit, Building 1365	Construct an addition. Also includes renovations.	14,000	Yes	Yes
RSAF Engine Storage	Construct new engine storage facility for RSAF.	6,000	Yes	Yes
USAF Engine Storage	Construct new engine storage facility for USAF.	10,000	Yes	Yes
Sunshades	Construct new sunshades on Row 3 of RSAF ramp.	29,400	Yes	No
Aerospace Ground Equipment (AGE) and Fuel Tanks Storage Yard	Construct addition to the existing AGE pad and storage area.	45,000	Yes	Yes
Facility Renovations				
Building 1361	Renovate for use as a supply facility.	N/A	No	No
Hangar, Building 1335	Renovate facility floors and fire suppression system. Repair hangar door.	N/A	No	No
Temporary Facilities				
Temporary Trailers	Install seven temporary trailers for use as office space.	9,840	No	No

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. During development of the Proposed Action, USAF considered alternatives to the beddown of additional F-15SGs that limited the increase in the number of support personnel and munitions expenditures. However, these alternatives would not meet the purpose and need (**Section 1.5**) to allow the RSAF to train to and maintain maximum readiness. For this reason, these potential alternatives were considered and dismissed from further analysis.

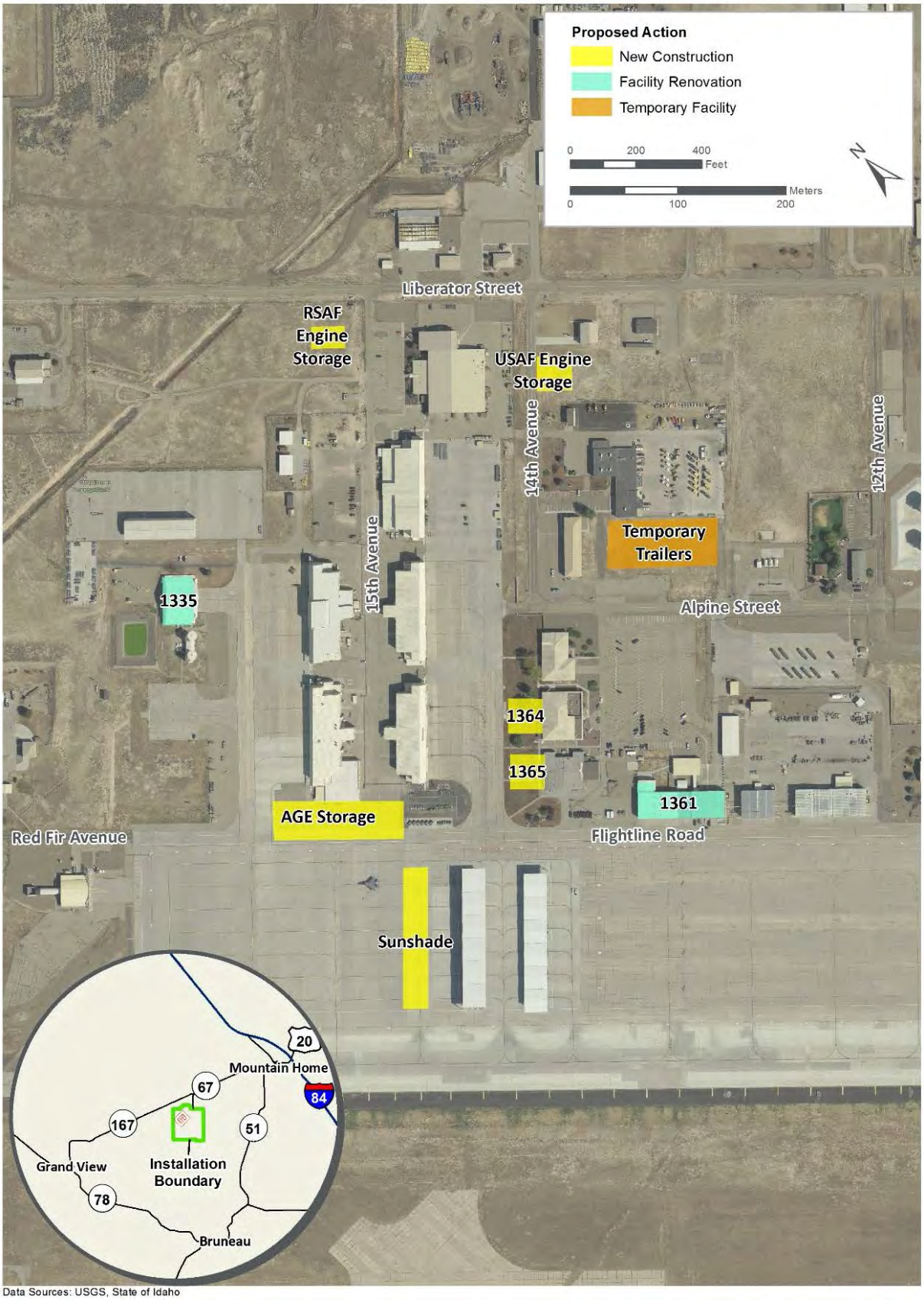

Figure 2-2. Facility Construction and Modifications - Proposed Action

To be carried forward for analysis, alternatives to the Proposed Action must meet the following selection standards:

- Co-locate with existing F-15E and F-15SG aircraft. Co-location with existing F-15E and RSAF F-15SG aircraft ensures organizational efficiencies between units by maximizing joint use of aircraft-specific logistical and maintenance support facilities, equipment, and trained personnel.
- Provide adequate and available training airspace. Local training airspace allows aircrews to perform effective training without wasting finite flying hours on transit that provides little to no training value.
- Provide space and facilities for additional aircraft and personnel with minimal improvements to minimize costs and environmental impacts.

2.2.1 Evaluation of Alternatives

USAF identified two possible alternatives to the Proposed Action, Seymour Johnson AFB and a Mountain Home AFB Construction Alternative, that both meet the purpose and need as described in **Section 1.5**.

Seymour Johnson AFB. USAF identified Seymour Johnson AFB as a potential alternative to the Proposed Action because it currently supports a combat-coded operational F-15E squadron. Training with this squadron would allow the RSAF to train to maximum readiness on the F-15SG. However, Seymour Johnson AFB does not currently host F-15SG aircraft and, therefore, would not provide the operational efficiencies currently available at Mountain AFB. Additionally, Seymour Johnson AFB has limited ramp space and limited airspace capacity to expand training opportunities to accommodate RSAF aircraft.

Mountain Home AFB Construction Alternative. USAF identified an alternative to the Proposed Action that provides additional capacity to accommodate the RSAF support capabilities. While the Proposed Action adequately accommodates the increase in RSAF operations, this alternative would provide additional munitions and equipment storage for the increase in aircraft.

Table 2-9 provides a comparison of possible alternatives and the Proposed Action to the selection standards described in **Section 2.2**. One of the potential alternatives identified, in addition to the Proposed Action, meets the selection standards described in **Section 2.2**. Additional details regarding the Mountain Home AFB Construction Alternative are provided in **Section 2.2.2**.

Table 2-9. Evaluation of Potential Alternatives

Potential Alternative	Selection Standards		
	Co-location	Airspace	Support Facilities
Seymour Johnson AFB	X	X	X
Mountain Home AFB Construction Alternative	✓	✓	✓
Proposed Action	✓	✓	✓

2.2.2 Alternative 1 – Construction Alternative

Under Alternative 1, USAF would conduct all activities described under the Proposed Action except for two facility modifications projects (see **Table 2-10**). Under Alternative 1, USAF would also construct four munitions storage igloos and would construct an addition to Building 1315 rather than renovating Building 1361 (see **Figure 2-3**). In total, the construction and modifications under Alternative 1 would disturb 3.3 acres and increase impervious surface on the installation by approximately 2.7 acres.

Table 2-10. Additional Proposed Facility Construction and Modifications under Alternative 1

Project	Description	Size (square feet)	Ground Disturbance?	Impervious Surface?
New Construction and Facility Additions				
PBL Supply (Boeing), Building 1315	Construct addition to existing PBL supply facility.	4,500	Yes	Yes
Munitions storage igloos	Construct four new 6,300-square foot munitions igloos.	25,200	Yes	Yes

2.3 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 beddown additional RSAF F-15SGs at Mountain Home AFB. The No Action Alternative would not meet the purpose of and need for the Proposed Action, as described in **Section 1.5**.

2.4 Identification of the Preferred Alternative

The Preferred Alternative is to implement the Proposed Action, as described in **Section 2.1** of this EA.

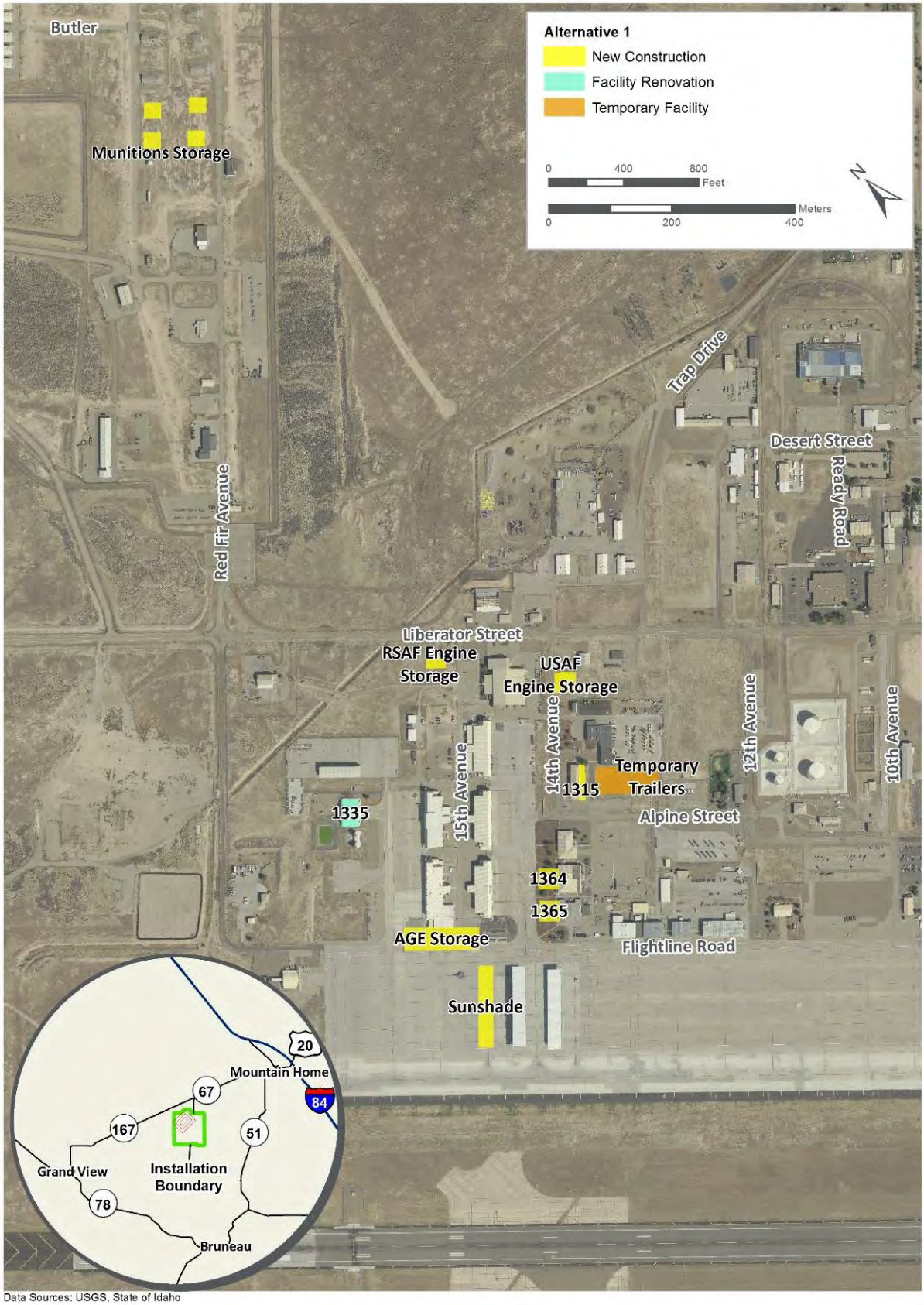

Figure 2-3. Facility Construction and Modifications - Alternative 1

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3. Affected Environment and Environmental Consequences

All potentially relevant resources were initially considered for analysis in this EA. In compliance with NEPA, CEQ, and EIAP 32 CFR § 989 guidelines, **Section 3** of this document focuses only on the resources considered potentially subject to impacts from the Proposed Action and alternatives, or No Action Alternative. **Sections 3.1** through **3.9** present the potential environmental impacts for the following resource categories: noise, air quality, soils, cultural resources, water resources, socioeconomics, health and safety, biological resources, and hazardous materials and wastes. Impacts identified in **Section 3.1** through **Section 3.9** would be considered adverse, unless noted otherwise. Throughout the analysis in **Sections 3.1** through **3.9**, as applicable, the proposed area that could be physically disturbed from the Proposed Action and Alternative 1 is referred to as the "project area." The term "project area" encompasses the locations proposed for construction or renovation identified in **Section 2**.

The Proposed Action includes components affecting Mountain Home AFB, and MHRC and associated airspace, or both. Some components, such as proposed construction projects, only affect the installation because of their limited geographic scope. Similarly, the effects of inert munitions use are exclusive to MHRC, and increases in MOA and MTR use are exclusive to the airspace and areas below the airspace. **Table 3-1** highlights the affected areas analyzed for each resource.

Table 3-1. Resources Analyzed in this EA

Resource Category	Mountain Home AFB	MHRC and Airspace
Noise	Yes	Yes
Air Quality	Yes	Yes
Soils	Yes	**No**
Cultural Resources	Yes	Yes
Water	Yes	**No**
Socioeconomics	Yes	**No**
Health/Safety	Yes	Yes
Biological Resources	Yes	**No**
Hazardous Materials And Wastes	Yes	Yes
Airspace	**No**	**No**
Land Use	**No**	**No**
Utilities and Infrastructure	**No**	**No**
Geology	**No**	**No**
Transportation	**No**	**No**
Environmental Justice	**No**	**No**

Resource Categories Eliminated from Detailed Analysis

Based on the components of the Proposed Action, USAF focused on specific resource categories to define the environment potentially affected by the beddown of additional F-15SGs at Mountain Home AFB. Some resources would not be affected by the Proposed Action, Alternative 1, or No Action Alternative. Resource categories that have been eliminated from further detailed study in this document and the rationale for eliminating them are presented below**:**

Airspace. The Proposed Action and alternatives do not include any proposals for new airspace, nor do they include changes to the manner in which the existing airspace is used. Under the Proposed Action, all F-15SGs would conduct operations within existing airspace and training areas currently authorized for and utilized by F-15Es and F-15SGs operating from Mountain Home AFB. Therefore, impacts on airspace are not expected.

Land Use. The Proposed Action and alternatives do not include any proposed changes to existing land use at Mountain Home AFB or within the confines of MHRC and associated airspace. All proposed activities, including aircraft operations and munitions use, would take place within areas currently authorized and utilized for the same activities. All proposed construction and facility modifications would take place on Mountain Home AFB within the existing developed cantonment and airfield areas. Impacts on land use from aircraft operations are not expected as noise from operations within the MTRs and MOAs would be indistinguishable from current conditions and would be completely compatible with all land uses, as described in **Section 3.1**. Therefore, impacts on land use are not expected.

Utilities and Infrastructure. The Proposed Action and alternatives would not require upgrades or additions to the utilities infrastructure to accommodate the proposed facility additions and renovations. The total number of installation personnel under the Proposed Action and alternatives would be consistent with the historical population of the installation. Therefore, perceptible increases or changes to use of on or off-installation utilities and infrastructure are not anticipated. The Proposed Action and alternatives also do not include any changes to infrastructure or utilities use at MHRC. Therefore, impacts on utilities and infrastructure are not expected.

***Geology*.** The Proposed Action and alternatives would include construction only in developed and maintained areas of Mountain Home AFB, and no construction would take place at MHRC. Any excavation to support construction of new facilities would occur within developed areas and the surface soils and would not require disturbance of the bedrock. All proposed construction would incorporate use of erosion and sediment control best management practices (BMPs) in accordance with USAF guidance, an Erosion and Sediment Control Plan (ESCP), and would adhere to the requirements of the installation's Stormwater Pollution Prevention Plan (SWPPP). The Proposed Action and alternatives would not temporarily or permanently disturb the geology beneath the surface soils. The lithology (i.e., the character of a rock formation); stratigraphy (i.e., the layering of sedimentary rocks); topography (i.e., the general shape and arrangement of a land surface); and geological structures that control groundwater quality, distribution of aquifers and confining beds, and groundwater availability would not be disturbed by any component of the Proposed Action or alternatives. Therefore, impacts on geological resources are not expected.

Transportation. The Proposed Action and alternatives would not include construction or modification of any roads or transportation networks. The total number of installation personnel under the Proposed Action and alternatives would be less than the historic population of the installation and the existing transportation network is capable of supporting this population size, as noted in the *2007 Final Environmental Assessment for Republic of Singapore Air Force F-15SG Beddown, Mountain Home AFB*. Therefore, the Proposed Action and alternatives identified in this EA would not have the potential to adversely impact traffic patterns within and access to Mountain Home AFB. Therefore, impacts on transportation networks on installation or within the community are not expected (MHAFB 2007).

Environmental Justice. Under the Proposed Action and alternatives, changes in noise levels represent the only possible factor relevant to potential environmental justice impacts. As the analysis demonstrates in **Section 3.1**, noise levels of 65 day-night sound level (DNL) or greater would not affect any populations around the installation or under the training airspace. Additionally, noise levels around the installation and under the training airspace would be indistinguishable from current conditions. Because changes to the level of noise and land use are not anticipated from the Proposed Action or alternatives, neither minority nor low-income groups would be disproportionately adversely affected. Therefore, environmental justice was eliminated from further analysis.

Resource Categories Eliminated from Detailed Analysis for MHRC

Several additional resource categories do not warrant analysis for the MHRC and areas under the airspace and were analyzed only for Mountain Home AFB. The Proposed Action and alternatives would not include construction at MHRC, personnel changes to the ranges or other facilities in the MHRC, or alter MHRC lands. Increases in aircraft operations in the existing airspace would not result in ground disturbance or distinguishable changes to the noise environment below the airspace, as described in **Section 3.1**. The following resource categories were eliminated from additional analysis for MHRC and the areas under the airspace, as changes to any of these resources from baseline conditions would not occur.

Soils. The Proposed Action and alternatives would not include an increase in the use of live munitions or flares and therefore would not include the potential to disturb or displace soils from explosions on MHRC. All proposed increases in inert munitions would take place within existing training areas and there would be no construction of roads, targets, or facilities. Additionally, aircraft operations within the existing airspace would not result in any ground disturbance. Therefore, impacts on soils are not expected at MHRC or under the airspace.

Water Resources. Under the Proposed Action and alternatives, all proposed increases in inert munitions would take place within existing training areas and there would be no construction of roads, targets, or facilities. Additionally, aircraft operations within the existing airspace would not result in any ground disturbance. Therefore, impacts on water resources are not expected at MHRC or under the airspace.

Biological Resources. The Proposed Action and alternatives would not include an increase in the use of live munitions or flares and therefore would not include the potential to increase risk of fires on MHRC. All proposed increases in chaff and inert munitions would take place within existing training areas and there would be no construction of roads, targets, or facilities.

Additionally, aircraft operations within the existing airspace would not result in any ground disturbance and noise levels under the training airspace would be indistinguishable from current conditions, as described in **Section 3.1**. Therefore, impacts on biological resources are not expected at MHRC or under the airspace.

Socioeconomics. The Proposed Action and alternatives at MHRC and under the airspace would occur entirely within the confines of MHRC and existing airspace and would not include any construction at MHRC. Therefore, impacts on the local economy from the increases in MHRC construction-related payroll taxes, sales receipts, and the indirect purchase of goods and services would not occur. Therefore, impacts on socioeconomics at MHRC or under the airspace would not be expected.

3.1 Noise

3.1.1 Definition of the Resource

Sound is a physical phenomenon consisting of vibrations that travel through a medium, such as air, and are sensed by the human ear. Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies depending on the type and characteristics of the noise, distance between the noise source and the receptor, receptor sensitivity, and time of day. Noise is often generated by activities essential to a community's quality of life, such as aircraft operations, construction, or vehicular traffic.

Sound varies by both intensity and frequency. Sound pressure level, described in decibels (dB), is used to quantify sound intensity. The dB is a logarithmic unit that expresses the ratio of a sound pressure level to a standard reference level. Hertz is used to quantify sound frequency. The human ear responds differently to different frequencies. "A-weighing", measured in A-weighted decibels (dBA), approximates a frequency response expressing the perception of sound by humans. Sounds encountered in daily life and their sound levels are provided in **Table 3-2**.

Table 3-2. Common Sounds and Their Levels

Outdoor	Sound Level (dBA)	Indoor
Jet flyover at 1,000 feet	100	Rock band
Gas lawnmower at 3 feet	90	Food blender at 3 feet
Downtown (large city)	80	Garbage disposal
Heavy traffic at 150 feet	70	Vacuum cleaner at 10 feet
Normal conversation	60	Normal speech at 3 feet
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room

Source: USEPA 1971

The sound pressure level noise metric describes steady noise levels, although very few noises are, in fact, constant; therefore, additional noise metrics have been developed to describe noise including:

- Maximum Sound Level (L_{max}) – L_{max} is the maximum sound level in dB.
- Equivalent Sound Level (L_{eq}) – L_{eq} is the average sound level in dB of a given event or period of time.
- Sound Exposure Level (SEL) – SEL is a measure of the total energy of an acoustic event. It represents the level of a 1-second long constant sound that would generate the same energy as the actual time-varying noise event such as an aircraft overflight. SEL provides a measure of the net effect of a single acoustic event, but it does not directly represent the sound level at any given time.
- DNL – DNL is the average sound energy in a 24-hour period with a penalty added to the nighttime levels. Because of the potential to be particularly intrusive, noise events occurring between 10 p.m. and 7 a.m. are assessed a 10-dB penalty when calculating DNL. DNL is a useful descriptor for aircraft noise because: (1) it averages ongoing yet intermittent noise, and (2) it measures total sound energy over a 24-hour period. DNL provides a measure of the overall acoustical environment, but, as with SEL, it does not directly represent the sound level at any given time. For well-distributed sound, L_{eq} is approximately 6.4 dBA lower than DNL.
- Onset Rate Adjusted Day-night Sound Level (L_{dnmr}) – L_{dnmr} is the average sound energy in a 24-hour period with penalties added to the nighttime levels and to account for the abrupt onset of noise from aircraft when flying low and fast. L_{dnmr} provides a measure of the overall acoustical environment and is normally used to assess subsonic aircraft noise in military airspaces. As with DNL, it does not directly represent the sound level at any given time.

Regulatory Review and Land Use Planning. The Noise Control Act of 1972 (Public Law 92-574) directs federal agencies to comply with applicable federal, state, and local noise control regulations. However, the Noise Control Act does specifically exempt military training activities and noise from aircraft overflights from all state and local noise regulations. In 1974, the United States Environmental Protection Agency (USEPA) provided information suggesting continuous and long-term noise levels in excess of 65 dBA DNL are normally unacceptable for noise-sensitive land uses such as residences, schools, churches, and hospitals. USAF's land use guidelines for noise exposure are outlined in AFI 32-7063, *Air Installations Compatible Use Zone Program*. **Table 3-3** provides a general overview of recommended noise limits from aircraft operations for land use planning purposes.

Table 3-3. Recommended Noise Limits for Land Use Planning

General Level of Noise	Percent Highly Annoyed	Aircraft Noise (DNL)	General Recommended Uses
Low	<15%	< 65 dBA	Noise-sensitive land uses acceptable
Moderate	15%-39%	65–75 dBA	Noise-sensitive land uses normally not recommended
High	>39%	> 75 dBA	Noise-sensitive land uses not recommended

Source: USAF 2015a

3.1.2 Existing Conditions

Neither the State of Idaho nor Elmore County maintain a noise ordinance, but the Elmore County zoning guidelines address zoning for all airports within Elmore County, including Mountain Home AFB. This zoning ordinance is consistent with the recommendations contained in the Mountain Home AFB Air Installation Compatible Use Zone plan. The ordinance establishes an Airport Hazard Zone for Mountain Home AFB that protects the installation from encroachment (Elmore County Zoning and Development Ordinance § 6-36). The City of Mountain Home does maintain a nuisance noise ordinance that exempts construction activities between 8 a.m. and 10 p.m. (City of Mountain Home Code §7 Noise).

Mountain Home AFB

Existing sources of noise on and adjacent to the installation include military and civilian aircraft overflights, road traffic, and other noises such as lawn maintenance equipment, construction, and bird and animal vocalizations. This section outlines background noise and existing aircraft noise at Mountain Home AFB.

Background Noise. Background noise levels without aircraft operations (L_{eq} and DNL) were estimated for the surrounding areas using the techniques specified in the *American National Standard Institute - Quantities and Procedures for Description and Measurement of Environmental Sound Part 3: Short-term measurements with an observer present*. The areas surrounding Mountain Home AFB are primarily rural and agricultural with estimated background noise levels of 38 dBA in the daytime, 32 dBA at night, with a DNL of 40 dBA (ANSI 2013).

Aircraft Noise. The existing mission and aircraft operations at Mountain Home AFB are described in **Section 2.3.1**. F-15s conduct most operations at Mountain Home AFB, and dominate the overall noise environment at and around the installation. For reference purposes, **Table 3-4** outlines the SEL and L_{max} for individual F-15Es and F-15SGs at 1,000 feet AGL under different operational conditions.

Table 3-4. Sound Levels for Individual F-15E/SG Overflights at 1,000 feet AGL

Condition	SEL (dBA)	L_{max} (dBA)	Power	Speed (knots)
Afterburner Assisted Take-off	120.4	115.6	91%	350
Takeoff	113.5	105.8	90%	300
Approach	90.4	83.1	75%	170
Cruise	90.2	83.2	74%	280

Source: USAF 2007

USAF adopted the NOISEMAP computer program to describe noise effects from aircraft operations. NOISEMAP is a suite of computer programs and components developed by USAF to predict noise exposure near an airfield due to aircraft flight, maintenance, and ground run-up operations. NOISEMAP Version 7.3 was used to calculate the existing DNL noise contours at Mountain Home AFB. NOISEMAP accounts for all aircraft activities, including landings, take-offs, in-flight operations, maintenance activities, and engine run-ups.

Figure 3-1 shows the existing DNL noise contours plotted in 5-dBA increments, ranging from 65 to 85 dBA DNL. The noise contours, as shown, depict 2016 operational conditions. There have been no substantial changes in operations or mission at the installation since the noise contours were developed. Therefore, the 2016 operational noise contours have been carried forward as a baseline. The 65 dBA DNL noise contour extends approximately 3 to 4 miles beyond the installation boundary. The 65 dBA DNL is the noise level below which generally all land uses are compatible with noise from aircraft operations.

It should be emphasized that these noise levels, which are often shown graphically as contours on maps, are not discrete lines that sharply divide louder areas from land largely unaffected by noise. Instead, they are part of a planning tool that depicts the general noise environment around the installation based on typical aviation activities. Areas beyond 65 dBA DNL can also experience levels of appreciable noise depending upon training intensity or weather conditions. In addition, DNL noise contours may vary by year because of fluctuations in operational tempo due to unit deployments, funding levels, and other factors.

Table 3-5 presents the existing land acreage exposed to noise levels 65 dBA DNL or greater. A total of 9,661 acres off the installation and 5,114 acres on the installation are within the 65 dBA DNL contour under the existing conditions. No residences, schools, churches, hospitals, or other noise sensitive areas (NSAs) occur within the existing 65 dBA DNL contour off the installation.

Table 3-5. Area within Noise Contours at Mountain Home AFB – Existing Conditions

Noise Contour (dBA DNL)	Area Under Contours (Acres)		
	Existing Conditions		
	On-Base	Off-Base	Total
65-70	1,161	5,348	6,509
70-75	1,330	2,938	4,268
75-80	1,012	1,209	2,221
80-85	644	167	811
>85	967	0	967
Total	5,114	9,661	14,775

Sources: USAF 2013

MHRC

Aircraft operations at the MHRC produce a noise environment that is somewhat different from that around airfields. Rather than regularly occurring operations like at airfields, activity in the MHRC is highly sporadic. Military aircraft within the MOAs at MHRC generate two types of sound (1) sound generated by the aircraft's engines and by air flowing over the airframe, and (2) sonic booms, impulsive sounds generated during supersonic flight.

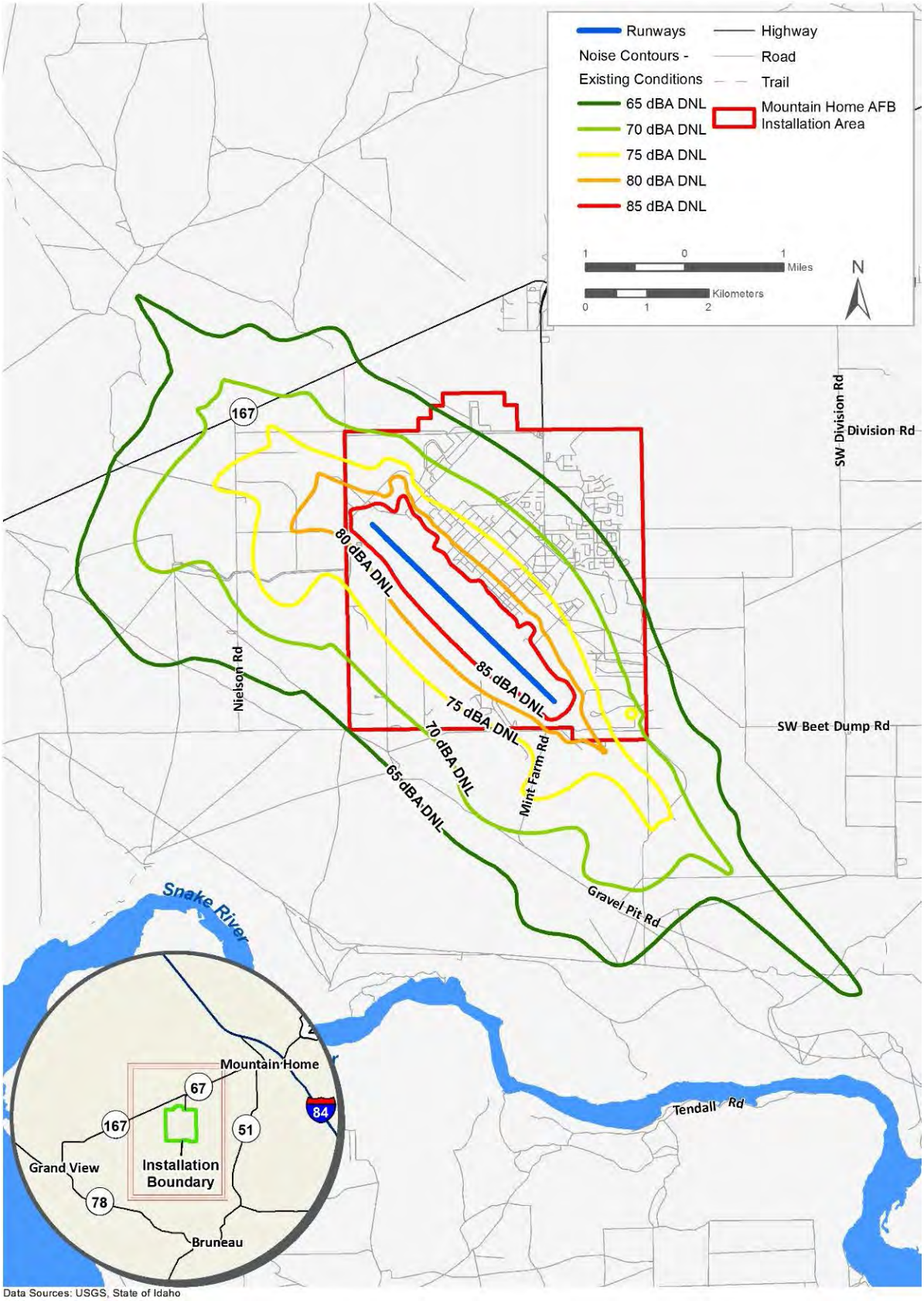

Figure 3-1. Noise Contours for Mountain Home AFB – Existing Conditions

Engine and Airframe Noise. Noise from an aircraft's engines and airframe is a time-varying sound increasing as the aircraft approaches and diminishing as it departs. The noise depends on the altitude, speed, and power setting of the aircraft. Noise from flight operations typically occurs beneath the main approach and departure corridors around the airfield, and under MOAs and MTRs with low altitude air operations. Individual military overflight events also differ from typical community noise events at airfields in that noise from a low-altitude, high-airspeed flyover can have a rather sudden onset, with rates of up to 150 dB per second. The cumulative daily noise metric devised to account for the "surprise" effect of the sudden onset of aircraft noise events on humans and the sporadic nature of airspace activity is L_{dnmr}. **Table 3-6** presents the existing sound levels within the MHRC MOAs (USAF 2013). The assessment included the total annual average aircraft operations within the MOAs, including aircraft operating out of Mountain Home AFB, the Idaho National Guard, and other transient users. The existing sound levels are less than 65 dBA, and compatible with all land uses.

Table 3-6. Noise Levels and Number of Sonic Booms at MHRC

	Jarbidge		Owyhee		Paradise		Saddle
	North	South	North	South	North	South	A/B
L_{dnmr}	62	55	59	53	48	49	40
CDNL [a]	54	-	53	-	47	-	-
Booms/day	2.8	-	2.5	-	2.2	-	-
Booms/month	56	-	50	-	44	-	-

Source: USAF 2016

[a] The DNL of "blast" noise is expressed as CDNL

Sonic Booms. Aircraft in supersonic flight (i.e., exceeding the speed of sound) cause sonic booms. A sonic boom is characterized by a rapid increase in pressure, a decrease in pressure, and then a return to normal atmospheric levels. This change occurs very quickly, usually within a few tenths of a second, and is often perceived as a "bang-bang" sound. The amplitude of a sonic boom is measured by its peak overpressure in pounds per square foot and can be converted to dB as needed. The sound levels depend on the aircraft's size, weight, geometry, speed, and altitude. Sonic booms can be annoying and cause startle reaction in humans and animals. On occasion, very loud sonic booms can cause physical damage to structures such as window breaking and plaster cracking.

Supersonic operations are permitted in Owyhee North, Jarbidge North, and Paradise North MOAs at altitudes above 10,000 feet MSL, except over the Duck Valley Indian Reservation where it is prohibited. Supersonic flight is also permitted above 30,000 feet MSL in the Air Traffic Control Assigned Airspace above all the other MOA airspace; however, sonic booms generated at these high altitudes rarely reach the ground. BoomMap3 is a suite of computer modeling programs that predict noise exposure from sonic booms under the flight path of supersonic aircraft operations. **Table 3-6** outlines the number of sonic booms within the MHRC MOAs (USAF 2013). The information includes the total annual average aircraft operations within the MOAs, including aircraft operating out of Mountain Home AFB, the Idaho National Guard, and other transient users. There are seven to eight sonic booms each day distributed throughout the three MHRC MOAs where booms are permitted.

Military Training Routes. The SEL of F-15 aircraft operating at 500 feet AGL is 95.2 dBA. If there is only one flight per day, the DNL is 49.4 dB, which is calculated by subtracting a constant representing 10 times the logarithm of the 86,400 seconds in a 24-hour day. For a single F-15 flyover at 500 feet (96.2 dB SEL), the DNL would be 45.8 dBA DNL, and it would take 67 F-15 flights occurring over one location every day to achieve 65 dBA DNL. With the highest operational tempo and route utilization, the overall sound levels for F-15 overflights is 43.4 dBA DNL on IR-302, the MTR used most frequently (4.1 overflights per week), and 31.0 dBA DNL on VR-1300, the MTR used least frequently (one overflight per month). Based upon the limited number of aircraft overflights, the existing overall sound levels do not exceed 65 dBA DNL on any MTR associated with the Proposed Action. These existing levels of noise are compatible with all land use categories.

Although operational noise levels are too low to result in incompatibility with existing land uses, noise from individual F-15 overflights generate distinct acoustical events, and have the potential from time-to-time to annoy individuals directly under their flight path. A good predictor of annoyance near areas with less than 200 overflights per day is the maximum sound level (USAF 2014a and USAF 2014b). The maximum sound levels for the F-15 and percent of individuals annoyed are listed in **Table 3-7**. In general, one F-15 overflight each day at 500 feet AGL could annoy less than 2 percent of individuals directly under its flight path. During overflights, these individuals likely pause briefly during conversation or may awaken, if asleep.

Table 3-7. Sound Levels for F-15 Overflights within MTRs

Altitude/Distance (feet AGL)	Maximum Sound Level (dBA)	Sound Exposure Level (dBA)	Percent Annoyed from Individual Overflights
500	90.1	95.2	Less than 2%
1,000	83.2	90.2	Less than 1%
1,500	75.8	84.6	Less than 1%

Source: FICUN 1980 and USAF 2015a

Munitions Noise. Only heavy munitions that do not make noise upon impact (i.e., do not explode) such as inert bombs, rockets, and gunnery munitions are authorized on SCR; however, small arms are also used on the range. The peak noise metric is often used to assess effects from small arms firing because noise from munitions can be impulsive (i.e., loud and short), and a time averaging noise metric (e.g., DNL) does not capture the effect of munition noise. Noise sensitive land uses are not normally recommended in areas where noise from small arms ranges exceeds 87 peak noise level (dBP). Peak sound levels from the loudest small arms weapon used on the ground under existing conditions, the 0.50 caliber machine gun, decreases to 87 dBP in approximately 1.5 miles. Existing small arms training is audible, but distant, at the range boundary, which is greater than 4 miles from the SCR firing points. Noise modeling estimates are not available for munitions firing on SCR from aircraft; however, while the impulsive noise from munitions firing from an aircraft is audible, it would be dominated in the noise environment by the noise from the aircraft engine.

3.1.3 Environmental Consequences

This section discusses the effects of the Proposed Action and alternatives on the noise environment. Changes in noise would be assessed for significance based on context and

intensity. Noise impacts are analyzed in consideration of federal, state, and local noise ordinance, and increases of areas of incompatible land use outside the installation.

3.1.3.1 PROPOSED ACTION

The Proposed Action would have adverse effects on the noise environment because of noise generated by heavy equipment during construction and incremental increases in aircraft noise surrounding Mountain Home AFB. The Proposed Action would not lead to a violation of any federal, state, or local noise ordinance and would not substantially increase areas of incompatible land use on and adjacent to Mountain Home AFB.

Mountain Home AFB

Facility Construction and Modification. The construction activities would require use of heavy equipment that would generate short-term increases in noise near the project sites. **Table 3-8** presents typical noise levels (dBA at 50 feet) for the main phases of outdoor construction. Individual pieces of heavy equipment typically generate noise levels of 80 to 90 dBA at a distance of 50 feet. With multiple items of equipment operating concurrently, noise levels can be high within 400 to 800 feet of active construction sites.

Table 3-8. Noise Levels Associated with Outdoor Construction

Construction Phase	L_{eq} (dBA)
Ground clearing	84
Excavation, grading	89
Foundations	78
Structural	85
Finishing	89

Source: USEPA 1971 and FHWA 2006

All construction activities in support of the Proposed Action would be within the installation's property boundary and would be conducted in the context of an active AFB where aircraft and other types of noise is typical. There are no residences within 800 feet of the proposed construction. Given the temporary nature of proposed construction activities and the existing noise environment, these effects would be minor and significant impacts are not expected.

Although construction-related noise effects would be minor, the following BMPs would be performed to reduce further any realized noise effects:

- Heavy equipment use would primarily occur during normal weekday business hours
- Heavy equipment mufflers would be properly maintained and in good working order
- Personnel, particularly equipment operators, would don adequate personal hearing protection to limit exposure and ensure compliance with federal health and safety regulations.

Aircraft Noise. Noise levels on and adjacent to Mountain Home AFB under the Proposed Action were calculated using NOISEMAP 7.3, which accounts for all aircraft activities, including landings, take-offs, in-flight operations, maintenance activities, and engine run-ups.

Figure 3-2 shows the installation-wide DNL noise contours with and without the proposed F-15SG operations. The addition of the six proposed F-15SGs and associated air operations would produce a small increase in noise levels surrounding Mountain Home AFB. Changes to the overall noise environment at and surrounding the installation would be minor and indistinguishable from existing conditions. **Table 3-9** presents the land acreage exposed to noise levels greater than 65 dBA DNL with and without the Proposed Action. Under the Proposed Action, acreage within the 65 dBA DNL contour would increase by 9 percent off installation and 3 percent on-installation. Noise levels at NSAs would remain consistent with current conditions and there would be no additional schools, churches, hospitals, or other NSAs exposed to the 65 dBA DNL contour under the Proposed Action. Additional on-installation homes would fall within the 65 dBA DNL contour under the Proposed Action. However, noise levels at those homes would be almost indistinguishable from current conditions because they border the 65 dBA DNL contour under existing conditions. Although noise levels are shown graphically as contours in **Figure 3-2**, they are not discrete lines that sharply divide louder areas from land largely unaffected by noise. Therefore, these effects would be minor, and significant impacts are not expected.

Table 3-9. Area within Noise Contours at Mountain Home AFB – Proposed Action

Noise Contour (dBA DNL)	Area Under Contours (Acres)					
	Existing Conditions			Proposed Action		
	On-Base	Off-Base	Total	On-Base	Off-Base	Total
65-70	1,161	5,348	6,509	1,119	5,687	6,806
70-75	1,330	2,938	4,268	1,337	3,139	4,476
75-80	1,012	1,209	2,221	1,073	1,458	2,531
80-85	644	167	811	691	264	955
>85	967	0	967	1,033	2	1,035
Total	**5,114**	**9,661**	**14,775**	**5,253**	**10,550**	**15,803**

Sources: USAF 2013

MHRC

MOAs. The Proposed Action would have minute effects on the noise environment at the MHRC because of an increase in the overall operation tempo, and subsequent increases in the overall noise environment and number of sonic booms under the MHRC MOAs. However, these changes would be indistinguishable from existing conditions. There would be no change in the airspace or the types of operations conducted at MHRC. The nature of and the levels of noise from individual subsonic and supersonic overflights would be identical to existing conditions.

With the addition of six F-15SGs, there would be a 17 percent increase in air operations or an additional 19 training operations per day distributed throughout the eight MOAs at MHRC.

Figure 3-3 presents the L_{dnmr}, C-weighted DNL, and number of sonic booms for each of the MHRC MOAs both with and without the Proposed Action, including aircraft operating out of Mountain Home AFB, the Idaho National Guard, and other transient users. The overall sound levels would continue to be less than 65 dBA DNL, and compatible with all land uses. As with existing conditions and for similar reasons, individual overflights would interfere with

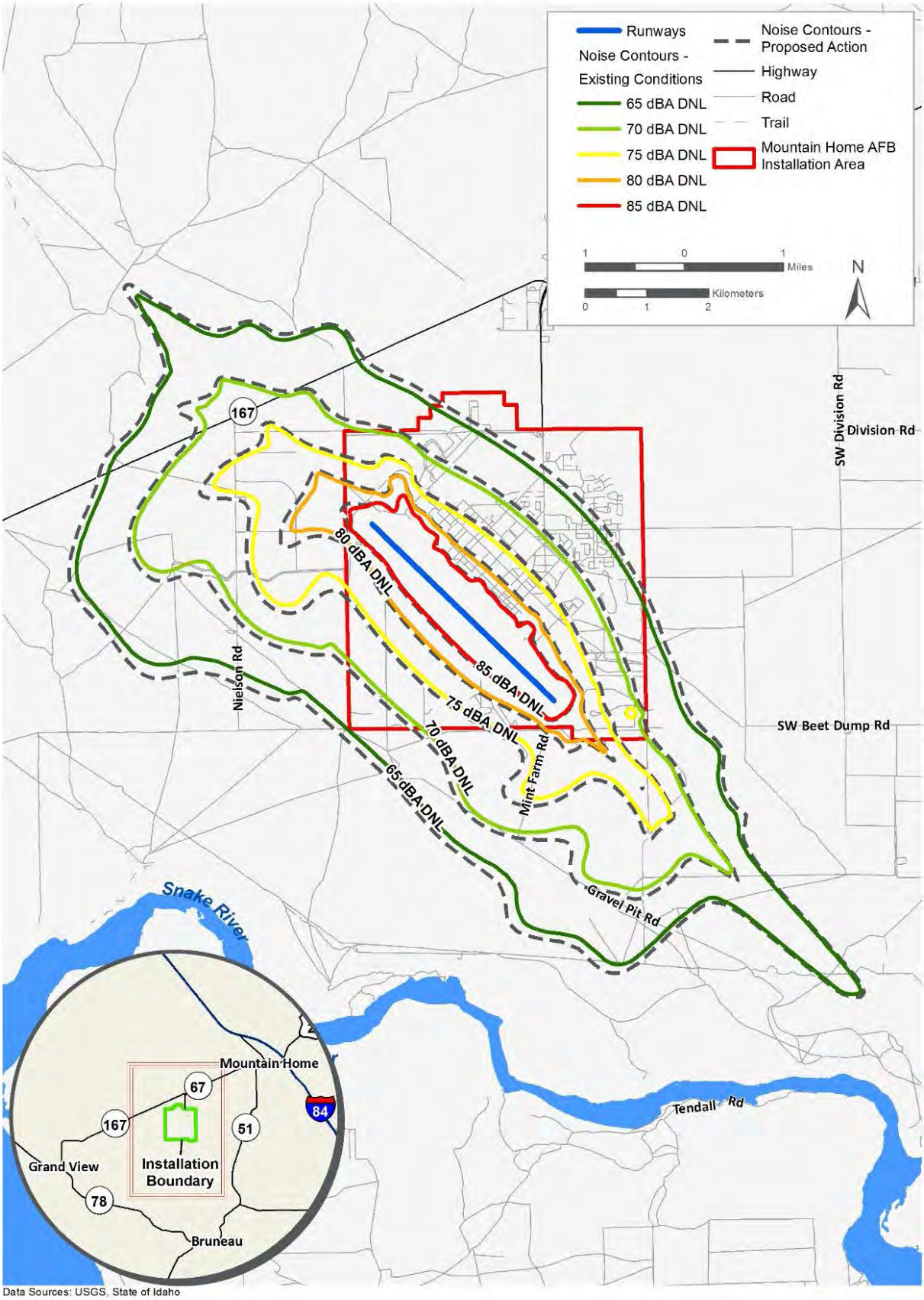

Figure 3-2. Noise Contours for Mountain Home AFB – Proposed Action

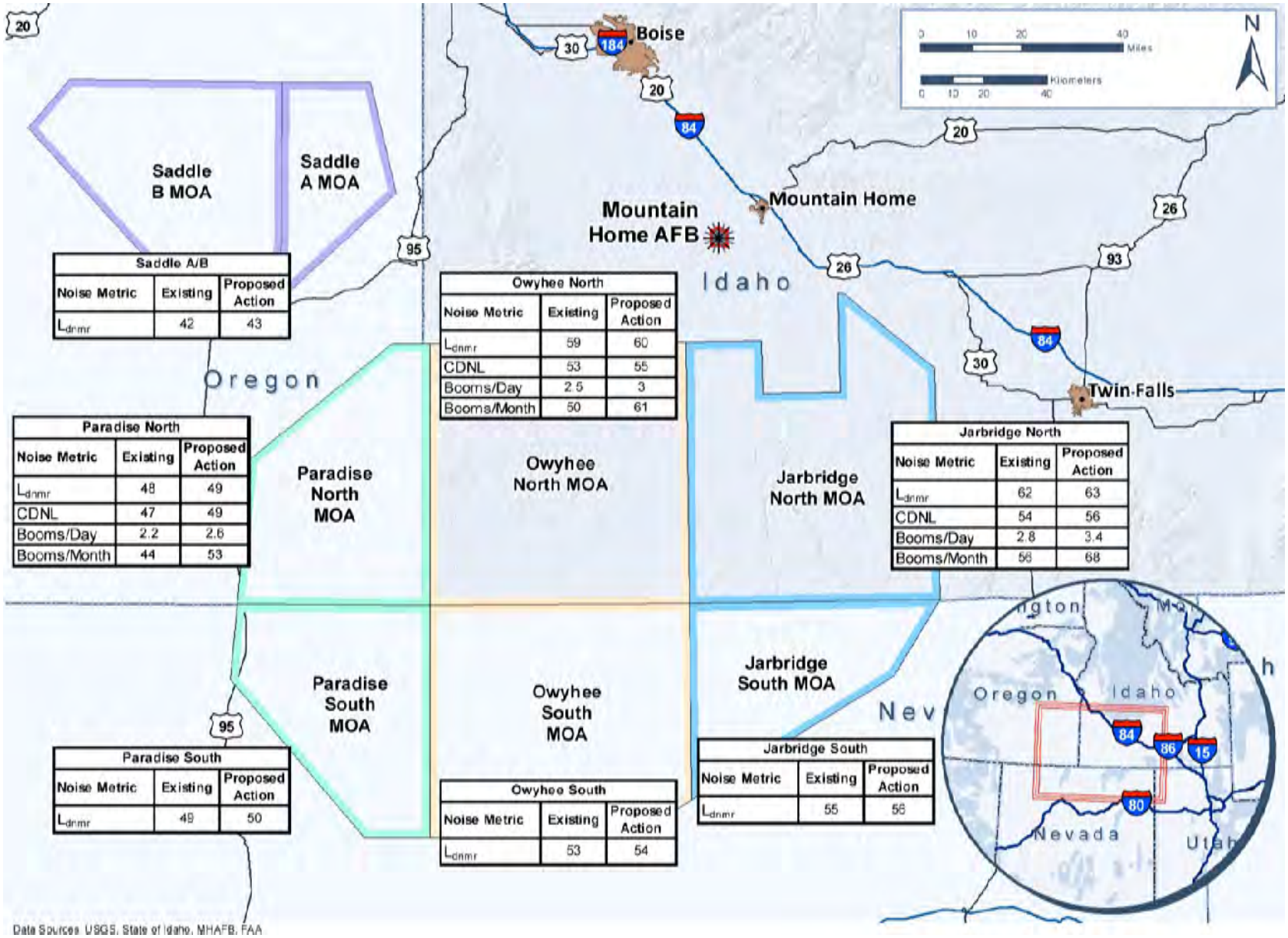

Figure 3-3. Noise Levels and Number of Sonic Booms at MHRC – Proposed Action

communication, disrupt sleep, and intermittently annoy individuals under the MOAs. In addition, there would be a comparable increase in sonic booms with eight to nine each day distributed throughout the eight MHRC MOAs. These effects would be minor and significant impacts are not expected.

Military Training Routes. The Proposed Action would have minute effects on the noise environment under the MTRs because of an increase in the overall operation tempo and subsequent increase in the overall noise environment under the MTRs. The overall sound levels for F-15 overflights would be 43.6 dBA DNL on IR-302, the busiest MTR. All other MTRs would have lower operational tempos and subsequently lower overall noise levels. Therefore, based upon the limited number of aircraft overflights within the MTRs, the overall sound levels would not exceed 65 dBA DNL. These levels of noise would continue to be compatible with all land use categories. These activities would be indistinguishable from existing conditions, and their effects would be negligible; significant impacts are not expected. As with existing conditions and for similar reasons, noise from individual F-15 overflights would generate distinct acoustical events, continuing to have the potential to annoy individuals from time-to-time. In general, an F-15 overflight cruising at 500 feet AGL would highly annoy less than 2 percent of individuals directly under its flight path (see **Table 3-7**).

Munitions Use. The Proposed Action would have negligible effects on the noise environment from an increase in the use of 20-mm training practice rounds at SCR. Although the overall amount of 20-mm training practice rounds used would increase, the types of weapons used at SCR would not change. As noted in **Section 3.1.2**, noise from small arms firing, such as the 20-mm training practice rounds, is assessed using the peak noise metric. The peak sound levels from the loudest weapon used at SCR, the 0.50 caliber machine gun, would not change under the Proposed Action and would continue to decrease to 87 dBP in approximately 1.5 miles. Effects on the noise environment are not anticipated from the increase in use of chaff across MHRC as expenditures of chaff from the aircraft are inaudible compared to the noise from aircraft flight. Additionally, once expended, chaff consists of metal foils or filings that scatter and are inaudible when reaching the ground. Increased use of 20-mm practice rounds and chaff at MHRC would be indistinguishable from existing conditions. These effects would be negligible and are not expected to be significant.

3.1.3.2 ALTERNATIVE 1

Effects would be anticipated from noise generated by heavy equipment during construction and increases in air operations and munitions use, as described in **Section 3.1.3.1**. Although the infrastructure improvements would vary when compared to the Proposed Action, the nature and overall level of noise from construction activities would be similar. These activities would be conducted in the context of an active AFB where aircraft and other types of noise are typical, and there are no residences within 800 feet of the proposed construction. The nature and overall level of these effects would be identical to those outlined in the Proposed Action.

Alternative 1 would not lead to a violation of any federal, state, or local noise ordinance, and would not substantially increase areas of incompatible land use. As with the Proposed Action, and for similar reasons, these effects would be minor.

3.1.3.3 NO ACTION ALTERNATIVE

Impacts on the noise environment would not be expected under the No Action Alternative. The noise environment would remain unchanged when compared with existing conditions.

3.2 Air Quality

3.2.1 Definition of the Resource

Air pollution is the presence in the atmosphere of one or more contaminants (e.g., dust, fumes, gas, mist, odor, smoke, vapor) such as to be injurious to human, plant, or animal life. Air quality as a resource incorporates several components that describe the levels of overall air pollution within a region, sources of air emissions, and regulations governing air emissions. The following sections include a discussion of the existing conditions, a regulatory overview, and a summary of climate and greenhouse gases (GHGs).

3.2.2 Existing Conditions

USEPA Region 10 and Idaho Department of Environmental Quality (IDEQ) regulate air quality in Idaho. The Clean Air Act (CAA) (42 United States Code [USC] § 7401-7671q), as amended, assigns USEPA responsibility to establish the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR § 50) that specify acceptable concentration levels of six criteria pollutants: particulate matter (measured as both particulate matter less than or equal to 10 microns in diameter [PM_{10}] and particulate matter less than or equal to 2.5 microns in diameter [$PM_{2.5}$]), sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), and lead. Short-term NAAQS (1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term NAAQS (annual averages) have been established for pollutants contributing to chronic health effects. Each state has the authority to adopt standards stricter than those established under the federal program. The State of Idaho has accepted the federal standards.

Federal regulations designate areas in violation of the NAAQS as nonattainment areas. Federal regulations designate areas with levels below the NAAQS or not evaluated for compliance with NAAQS as attainment areas. USEPA has designated all areas associated with the Proposed Action as in attainment for all criteria pollutants (USEPA 2017a). Mountain Home AFB is located in Elmore County. Elmore County has not been evaluated for NAAQS; therefore Elmore County and Mountain Home AFB are considered an attainment area. USEPA monitors levels of criteria pollutants at representative sites in each region throughout Idaho. For reference purposes, **Table 3-10** shows the monitored concentrations of criteria pollutants at the monitoring location closest to Mountain Home AFB. Notably, the closest monitoring station is in Boise, a highly urbanized area, and concentration of pollutants are likely lower in the Mountain Home AFB area. Although the 2016 8-hour O_3 and 2014 $PM_{2.5}$ concentrations exceed the NAAQS, they must be exceeded over a 3-year period to violate the NAAQS, hence the attainment status.

Permitting. Mountain Home AFB holds a Title V, Tier I Operating Permit, Permit No. T1-2012-0062 issued August 19, 2016. The permit requirements include annual periodic inventory of all significant stationary sources of air emissions for each of the criteria pollutants of concern and monitoring and recordkeeping requirements. Primary stationary sources of air emissions include paint booths, fuel storage areas, aircraft engine test stands, and electric generators.

Table 3-10. Air Quality Standards and Monitored Data

Pollutant	Air Quality Standard		Monitored Concentrations		
	Level	Averaging Period	2014	2015	2016
CO					
1-hour (ppm)	35	Not to be exceeded more than once per year	4.4	5.7	6.0
8-hour (ppm)	9		2.1	2.5	2.5
NO_2					
1-year (ppb)	53	Annual mean	11.5	11.7	9.8
1-hour (ppb)	100	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years	43	47	41
O_3					
8-hour (ppm)	0.070	3-year average of the fourth highest daily maximum	0.065	0.064	0.072
SO_2					
1-hour (ppm)	75	98th percentile, averaged over 3 years	5	3	4
3-hour (ppb)	0.5	Not to be exceeded more than once per year	*No Data*	*No Data*	*No Data*
$PM_{2.5}$					
24-hour ($\mu g/m^3$)	35	98th percentile, averaged over 3 years	*No Data*	36	21
Annual mean ($\mu g/m^3$)	12	Averaged over 3 years	*No Data*	9.5	8.4
Lead					
Rolling 3-month average ($\mu g/m^3$)	0.15	Not to be exceeded	0.00	0.07	0.00
PM_{10}					
24-hour ($\mu g/m^3$)	150	Not to be exceeded more than once per year over 3 years	61	91	72

Source: 40 CFR § 50.1-50.12, USEPA 2017b
ppm = parts per million; ppb = parts per billion; $\mu g/m^3$ = micrograms per cubic meter

Table 3-11 lists Mountain Home AFB's 2015 facility-wide air emissions from all significant stationary sources. Notably, Idaho does not require permitting of mobile source emissions (e.g., aircraft and vehicle operations).

Table 3-11. Annual Emissions for Significant Stationary Sources at Mountain Home AFB

Pollutant	Emissions (tons per year [tpy])
CO	16.1
Oxides of nitrogen	14.6
Volatile organic compounds (VOCs)	7.8
PM_{10}	2.1
$PM_{2.5}$	2.0
SO_2	0.6

Climate and GHGs. Historically, Mountain Home, Idaho's, average high temperature is 91.7 degrees Fahrenheit (°F) in the hottest month of July, and the average low temperature is 20.3°F in the coldest month of December. Mountain Home has average annual precipitation of 10.6 inches per year. The wettest month of the year is December with an average rainfall of 1.4 inches (Idcide 2017). DoD has committed to reduce GHG emissions from non-combat activities 34 percent by 2020 (DoD 2016).

3.2.3 Environmental Consequences

Because the area within and around Mountain Home AFB is in attainment for the NAAQS, the General Conformity Rule is not applicable. Nevertheless, the General Conformity Rule *de minimis* (of minimal importance) thresholds have been utilized as a surrogate to determine the level of impacts under NEPA. Effects on air quality would be considered significant if the total emissions would exceed the General Conformity Rule *de minimis* threshold values, or the Proposed Action and its alternatives would contribute to a violation of any federal, state, or local air regulation.

3.2.3.1 PROPOSED ACTION

Minor effects on air quality would be expected from generation of fugitive dust and the use of heavy equipment during construction and renovation. Additional minor effects would be expected from a small increase in heated area; the addition of personnel; and additional aircraft operations at the installation, at MHRC, and within the MTRs. Emissions would not exceed the General Conformity Rule *de minimis* threshold values, and the Proposed Action would not contribute to a violation of any federal, state, or local air regulation. Therefore, effects on air quality would not be significant.

USAF's Air Conformity Applicability Model (ACAM) was used to estimate the total direct and indirect emission from the Proposed Action, which have been compared to the *de minimis* thresholds to determine the level of effects under NEPA (USAF 2015b). **Table 3-12** lists total direct and indirect emissions resulting from the Proposed Action. Construction and renovation emissions were estimated for fugitive dust, on- and off-road diesel equipment and vehicles, worker trips, architectural coatings, and paving off-gasses. Operational emissions were estimated for changes in personnel and aircraft operations before and after the beddown, including those at Mountain Home AFB, MHRC, and the MTRs. Incremental changes in emissions from additional 20-mm training practice rounds at SCR were considered negligible. Emissions would be below the *de minimis* threshold of 100 tpy of each pollutant in all areas; therefore, the level of effects would be minor.

The Proposed Action does not include any new major stationary sources of air emissions, and there would not be an appreciable net increase of air emissions from stationary sources such as building heaters, paint booths, engine test stands, and fuel storage and dispensing. Any new minor stationary sources of air emissions could be subject to federal and state air permitting regulations. They would be reviewed on a case-by-case basis, and added to the installation's air operating permit as necessary. Both a new source construction permit and a modification to the existing operating permit could be required. If any older boilers and back-up generators were removed during reconfiguring of existing buildings, each would be decommissioned and removed from the installation's air operating permit.

Table 3-12. Annual Proposed Action Air Emissions Compared to *De Minimis* Thresholds

	CO	Oxides of Nitrogen	VOC	SO_x	PM_{10}	$PM_{2.5}$	*De minimis Threshold [tpy]*	*Exceeds De Minimis Thresholds? [Yes/No]*
Construction and Renovation	5.6	6.4	3.9	<0.1	8.2	0.3	**100**	**No**
Operations								
Mountain Home AFB	44.4	71.1	21.8	5.0	10.1	9.1		
MHRC	3.0	76.5	10.0	3.7	7.1	6.4		
MTRs	0.6	15.9	2.0	0.8	1.5	1.3		

Source: USAF 2015b

In addition, the Idaho Administrative Procedures Act (IAPA) outlines other non-permitting requirements, such as controlling fugitive dust and open burning during construction. All persons responsible for any operation, process, handling, transportation, or storage facility that could result in fugitive dust would take reasonable precautions to prevent such dust from becoming airborne. Reasonable precautions might include using water to control dust from road grading or land clearing. The Proposed Action would proceed in full compliance with current IAPA requirements with compliant practices and products. These requirements include the following:

- Rules for control of fugitive dust (IAPA 58.01.650)
- Rules for control of visible emissions (IAPA 58.01.625)
- Rules for fuel burning equipment (IAPA 58.01.675)
- Rules for categories of allowable burning (IAPA 58.01.606).

This listing is not all-inclusive; the USAF and any contractors would comply with all applicable air pollution control regulations.

GHGs and Climate Change. This EA examines GHGs as a category of air emissions. It also looks at issues of temperature and precipitation trends to determine whether the affected environment or Proposed Action would be affected by climate change. This EA does not attempt to measure the actual incremental impacts of GHG emissions from the Proposed Action and there are no established criteria identifying monetized values that are to be considered significant for NEPA purposes.

Changes in GHG emissions from the operations at Mountain Home AFB, MHRC, and the MTRs would primarily come from the fuel used during aircraft operations, but also includes emissions associated with the increase in personnel at Mountain Home AFB. **Table 3-13** compares the estimated GHG emissions from the Proposed Action to the global, nationwide, and statewide GHG emissions. The estimated GHG emissions from the Proposed Action would be small; therefore, these effects would be minor.

Table 3-13. Global, Countrywide, Statewide, and Proposed Action GHG Emissions

Scale	CO_2e Emissions (MMT)	Change from Proposed Action
Global	43,125	0.0000006%
United States	6,870	0.000004%
Idaho	16.6	0.0016%
Proposed Action	0.0265	-

Sources: USEIA 2014, USAF 2015b
Note: MMT = million metric tons; CO_2e = carbon dioxide equivalent.

Table 3-14 outlines potential climate stressors and their effects on the Proposed Action. The proposed beddown and associated training activities at Mountain Home AFB in and of themselves are only indirectly dependent on any of the elements associated with future climate scenarios (e.g., meteorological changes). At this time, no future climate scenario or potential climate stressor would have appreciable effects on any element of the Proposed Action.

Table 3-14. Effects of Potential Climate Stressors on the Proposed Action

Potential Climate Stressor	Effects on the Proposed Action
More frequent and intense heat waves	negligible
Longer fire seasons and more severe wildfires	negligible
Chances in precipitation patterns	negligible
Increased drought	negligible
Harm to water resources, agriculture, wildlife, ecosystems	negligible

3.2.3.2 ALTERNATIVE 1

Under Alternative 1, minor effects on air quality would be expected from emissions generated by heavy equipment used during construction and incremental increases in aircraft operations and munitions use. The nature and overall level of these effects would be similar to those expected from the Proposed Action, as described in **Section 3.2.3.1**. Emissions would not exceed the General Conformity Rule *de minimis* threshold values, and activities under Alternative 1 would not contribute to a violation of any federal, state, or local air regulation. Therefore, significant impacts are not expected.

3.2.3.3 NO ACTION ALTERNATIVE

Impacts on air quality would not be expected under the No Action Alternative. Air quality would remain unchanged when compared with existing conditions.

3.3 Soils

For the purposes of this analysis, soils information pertains to all areas where proposed F-15SG construction projects would occur on the main installation of Mountain Home AFB. As described in **Section 3.0**, impacts to soils in the MHRC and areas below the airspace are not expected and are not discussed further.

3.3.1 Definition of the Resource

Soils are unconsolidated materials overlying bedrock or other parent material. Soils typically are described in terms of their complex type, slope, and physical characteristics. Differences among soil types in terms of their structure, elasticity, strength, shrink-swell potential, and erosion potential affect their abilities to support certain applications or uses. Soils play a critical role in the natural and human environment, affecting vegetation and habitat, water and air quality, and the success of the construction and stability of roads, buildings, and shallow excavations. Section 438 of the Energy Independence and Security Act (EISA) requires federal agencies to reduce stormwater runoff from federal development and redevelopment projects to protect water resources. Guidance for this Act aims to reduce erosion and water runoff.

Prime Farmland. Prime farmland is protected under the Farmland Protection Policy Act of 1981. Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. The land could be cropland, pasture, rangeland, or other land, but not urban built-up land or water. The intent of the Farmland Protection Policy Act is to minimize the extent that federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses.

3.3.2 Existing Conditions

There are seven different soils found within Mountain Home AFB. These soils and their acreages on the installation are shown in **Table 3-15**. Soils at Mountain Home AFB are loamy, which are typical of semi-arid regions. These soils are generally poorly drained with slopes ranging from 0 to 8 percent, and have a moderate erosion potential through precipitation and riverine and eolian processes (NRCS 2017a).

Table 3-15. Soils within Mountain Home AFB

Soil Type	Acres	Percent
Bahem silt loam, 0 to 4 percent slopes	4543.3	75.4
Garbutt silt loam, 0 to 4 percent slopes	13.9	0.2
Garbutt silt loam, 4 to 8 percent slopes	32.0	0.5
Minidoka-Minveno silt loams, 0 to 4 percent slopes	1045.2	17.3
Minveno silt loam, 0 to 4 percent slopes	163.0	2.7
Minveno-Minidoka silt loams, 0 to 8 percent slopes, stony	136.3	2.3
Royal fine sandy loam, 0 to 4 percent slopes	93.7	1.6
Total	**6,027.4**	**100.0**

Source: NRCS 2017a

The Proposed Action and Alternative 1 construction footprints are in Bahem silt loam, 0 to 4 percent slopes. Soil limitations to construction were determined based on data available in the Natural Resources Conservation Service web soil survey (NRCS 2017a). Soil limitations were rated for building construction and dwellings. The Bahem silt loam is not limited for development activities.

Prime Farmland. The Natural Resources Conservation Service has identified two soils within Mountain Home AFB considered prime farmland if irrigated. Bahem silt loam, 0 to 4 percent

slopes, and Garbutt silt loam, 0 to 4 percent slopes, are both listed as prime farmland if irrigated. The Bahem silt loam is located within the project area. However, this land is not available for agriculture because it is within an urban development, or "urbanized area," as identified by the U.S. Census Bureau (USCB 2010). Therefore, the areas where prime farmland soils are mapped at the site of the Proposed Action are not considered prime farmland.

3.3.3 Environmental Consequences

Minimization of soil erosion is considered when evaluating potential effects of a proposed action on soils. Generally, adverse effects can be avoided or minimized if proper construction techniques, erosion-control measures, and structural engineering design are incorporated into project development. Effects on soils would be significant if they would substantially change the soil composition, structure, or function within the environment.

3.3.3.1 PROPOSED ACTION

Minor impacts on soils would be expected from 2.6 acres of ground disturbance and an increase of 2.0 acres of impervious surfaces. These impacts would occur in soils mapped as Bahem silt loam, 0 to 4 percent slopes. Significant impacts are not expected.

The primary short-term effects would occur during construction activities when vegetation is cleared and the soil is exposed. Soils in the project area have previously been disturbed during initial construction of buildings on the installation, so effects would be expected to be minor. An ESCP would be followed and BMPs would be implemented during construction to minimize effects from exposed soil, and approved SWPPPs would be followed to reduce effects of increased impervious surfaces. Erosion and sediment control techniques could include soil erosion-control mats, silt fences, straw bales, diversion ditches, riprap channels, water bars, water spreaders, and sediment basins, and would be used as appropriate during construction. Section 438 of the EISA would be adhered to so that pre- and post-development hydrology would be maintained.

3.3.3.2 ALTERNATIVE 1

Minor impacts would be expected on soils under Alternative 1 and would be similar to those expected under the Proposed Action, as described in **Section 3.3.3.1.** The construction and modifications under Alternative 1 would disturb a total of 3.3 acres and increase impervious surface on the installation by 2.7 acres. All of these impacts would occur in soils mapped as Bahem silt loam, 0 to 4 percent slopes. While ground disturbance and increases in impervious surfaces would be greater under Alternative 1, the types of temporary impacts on soils during construction and additional impacts during operation would be similar to the Proposed Action. BMPs similar to those described under the Proposed Action would be incorporated to minimize or avoid adverse effects. Therefore, significant impacts are not expected.

3.3.3.3 NO ACTION ALTERNATIVE

Impacts on soils would not be expected under the No Action Alternative. Soil conditions would remain unchanged when compared with existing conditions.

3.4 Cultural Resources

3.4.1 Definition of the Resource

Cultural resources is an umbrella term for buildings, structures, objects, archaeological sites, and traditional cultural properties listed in, or determined eligible for listing in, the National Register of Historic Places (NRHP). Historic properties are cultural resources that are generally 50 years of age or older and determined eligible for listing in the NRHP based on their a.) significance in history, b.) association with an important person in history, c.) engineering or architectural merit, or d.) data potential.

While multiple laws address the protection of cultural resources, the primary regulatory driver for a proposed action (undertaking) is Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR § 800. Section 106 requires federal agencies to take into account the effects of their undertakings on historic properties.

Although Mountain Home AFB has a Programmatic Agreement (PA) with the State Historic Preservation Officer (SHPO) for the management of historic properties on Mountain Home AFB landholdings, the action also includes Mountain Home AFB airspace, which extends outside the physical boundaries of the base and ranges. Because much of the landscape under the airspace is not managed by Mountain Home AFB, Section 106 consultation with SHPO, stakeholders, and federally recognized Indian tribes was conducted in accordance with 36 CFR 800 for the identification of historic properties that could be adversely affected by the action. Additional information regarding the Section 106 consultation is provided in **Section 4.3.2** and **Section 4.3.3**. See **Appendix B** for documentation related to Section 106 consultation.

Mountain Home AFB has defined the Undertaking as the Proposed Action and Alternative 1 Action, and has defined two areas of potential effect (APEs): the Mountain Home AFB APE (APE 1), and the MHRC and Airspace APE (APE 2). APE 1 includes the Undertaking area within the physical boundaries of the main base, which includes potential direct effects from construction and renovation activities and potential indirect effects from visual intrusions and other impacts (see **Figures 3-4** and **3-5**). APE 2 encompasses the entirety of the MHRC and the airspace utilized by the F-15SG, which includes potential direct and indirect effects from noise or visual intrusions from aircraft and munitions use. APE 2 is depicted by the ranges, MOAs, IRs and VRs shown in **Figure 3-6**.

Mountain Home AFB also consults with federally recognized Indian tribes in a government-to-government context in accordance with the 2008 Memorandum of Understanding between Mountain Home AFB and the Shoshone Paiute of the Duck Valley Reservation and in accordance with the following: DoD Instruction 4710.02, *DoD Interactions with Federally-Recognized Tribes*; and AFI 90-2002, *Air Force Interactions with Federally-Recognized Tribes*. Government-to-government consultation with the tribes was initiated in letters dated October 27, 2017, and the USAF did not receive any responses to these letters.

As part of the Draft EA public review period, Mountain Home AFB also provided all federally recognized tribes with a copy of the Draft EA for review and comment. On February 7, 2018, USAF received a verbal request from the Shoshone Paiute of the Duck Valley Reservation for a government-to-government discussion regarding the Draft EA. In response to the request for

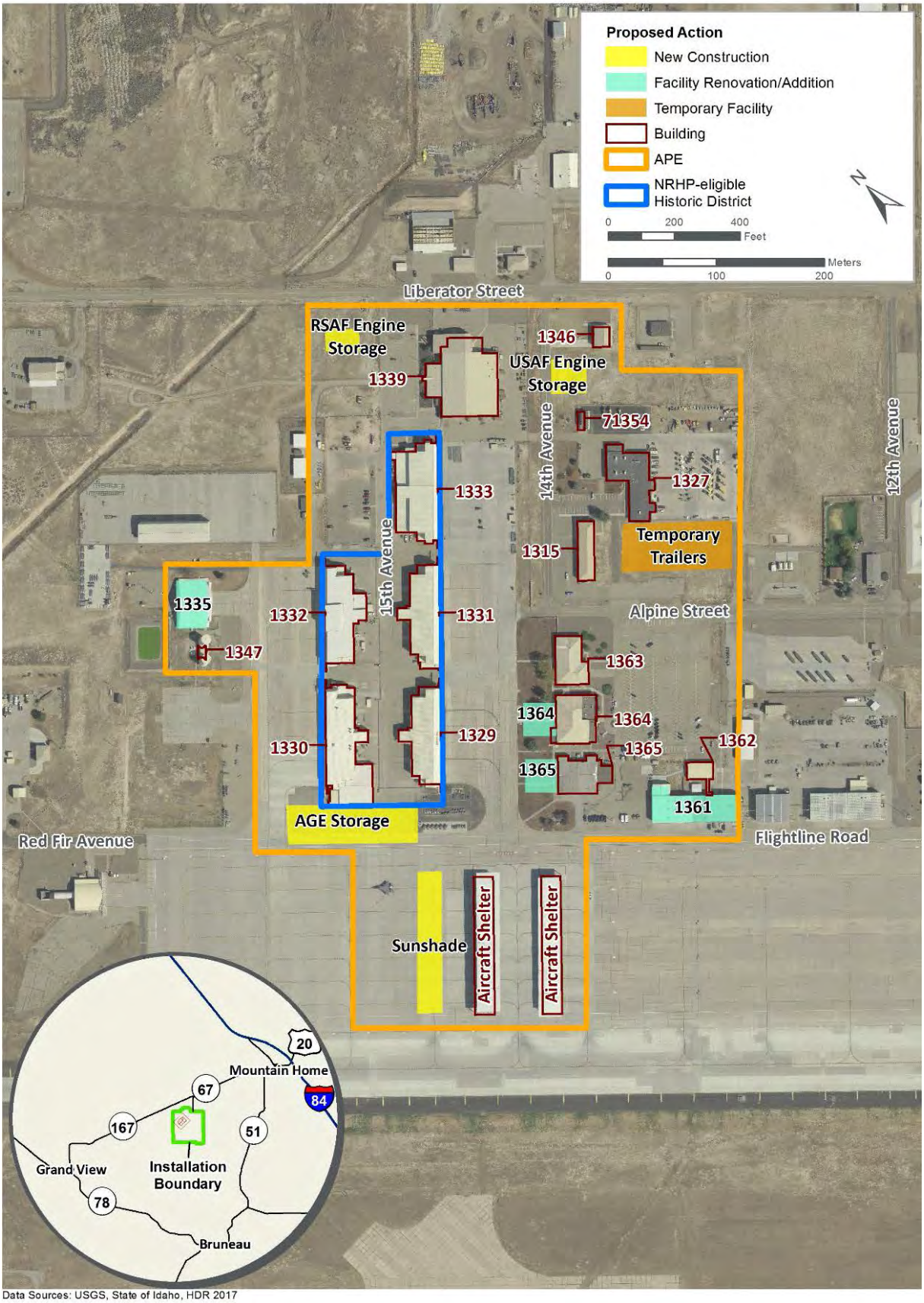

Figure 3-4. Mountain Home AFB APE (APE 1) – Proposed Action

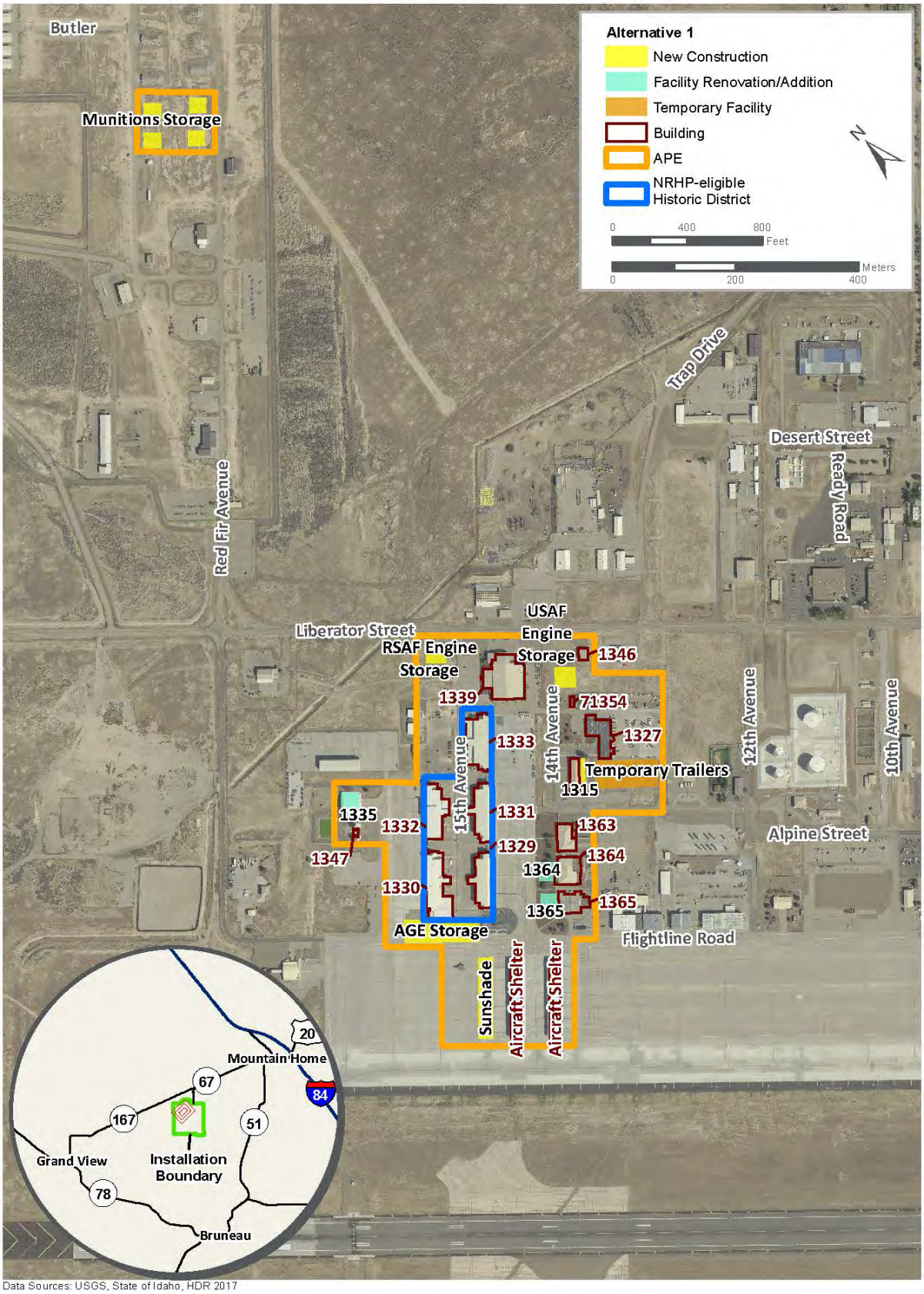

Figure 3-5. Mountain Home AFB APE (APE 1) – Alternative 1

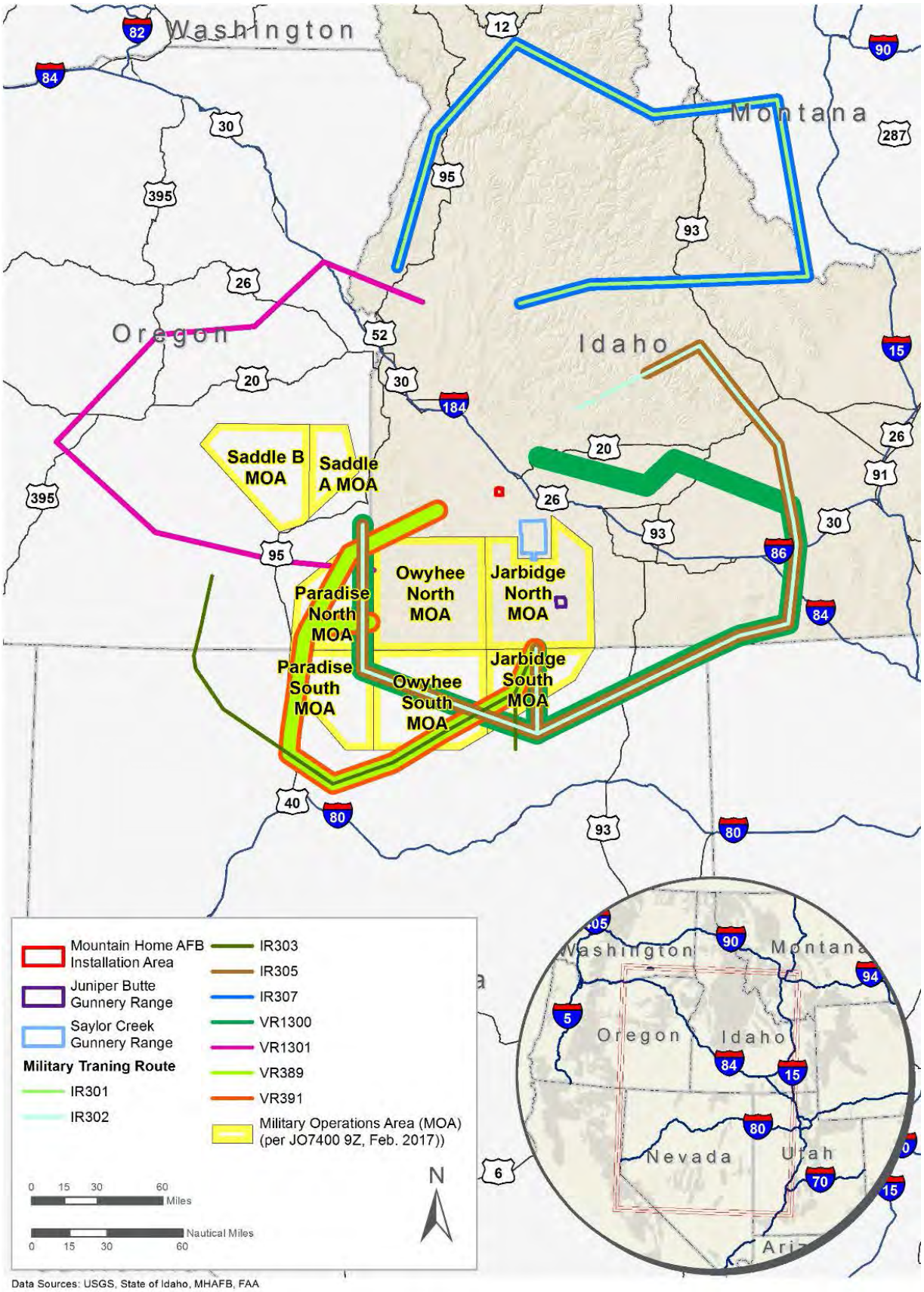

Figure 3-6. MHRC and Airspace APE (APE 2)

government-to-government discussions, the USAF held a telephone conversation with the Chairman of the Shoshone Paiute of the Duck Valley Reservation on April 30, 2018. The USAF also conducted a follow-up call to the Shoshone Paiute of the Duck Valley Reservation on May 21, 2018 in which the tribe discussed an increase in noise and sorties over sage grouse habitat under the Proposed Action. However, as described in **Section 3.1 and 3.8**, noise levels within MHRC under the Proposed Action would be indistinguishable from current conditions and no impacts are expected on wildlife or threatened and endangered species. USAF also held telephone calls with all other tribes in May 21, 2018 and received no further comment from these tribes. See **Appendix B** for documentation related to government-to-government coordination.

3.4.2 Existing Conditions

Mountain Home AFB

Architectural Resources. The majority of buildings and structures constructed from the establishment of Mountain Home Army Air Base in 1942 through the end of the Cold War (1990) have been evaluated for NRHP eligibility. Of the 24 NRHP-eligible architectural resources identified on Mountain Home AFB, the Strategic Air Command Nose Dock Hangars Historic District has been identified within APE 1. The district comprises five Cold War 'nose dock' type hangars (Buildings 1329, 1330, 1331, 1332, 1333) determined eligible for listing on the NRHP. The SHPO concurred with Mountain Home AFB's determination of eligibility for these hangars.

In addition to the nose dock hangars, there is one building in APE 1 that meets the 50-year age criterion for NRHP eligibility. Building 1361, constructed in 1965, was evaluated for NRHP-eligibility by the Mountain Home AFB Cultural Resources Manager. The 21,000-square-foot utilitarian building was constructed as an aircraft weapons calibration center (weapons maintenance), and later was repurposed for use as an aircraft components warehouse under Tactical Air Command and Air Combat Command. In 2009, a 1,500-square-foot vault addition was constructed on the warehouse exterior. Building 1361 does not rise to the level of significance identified for other buildings and districts at Mountain Home AFB for associations with Cold War-era events. The building does not possess sufficiently significant ties to Mountain Home AFB's historic missions focused on Strategic Air Command bombardment presence or transfer and storage of special weapons. The building was determined not eligible for listing in the NRHP. Mountain Home AFB provided this determination to the SHPO in a letter dated January 18, 2018. The SHPO concurred with the determination that Building 1361 is not eligible for listing on the NRHP (see **Appendix B**).

Archaeological Resources. All of Mountain Home AFB has been surveyed for archaeological resources. Five historical archaeological sites were recorded, none of which were determined eligible for listing in the NRHP. Twelve isolated artifacts (ten historic and two prehistoric) were also located during archaeological surveys. Isolates are not eligible for listing in the NRHP. None of these resources are within APE 1 (ACC 2013).

Resources of Traditional, Cultural, or Religious Significance. No traditional, cultural, or religious resources have been previously identified on Mountain Home AFB based on consultation with federally recognized Indian tribes with ties to the area. Given the extensive

development on the installation, the potential for undisturbed traditional cultural resources is extremely low.

MHRC and Airspace

File searches have previously been conducted for land that falls beneath the airspace utilized by, but outside the jurisdiction of, Mountain Home AFB; and cultural surveys have been completed on MHRC. Numerous prehistoric and historic sites have been noted on lands beneath the airspace, particularly in Nevada, Oregon and Idaho. NRHP-eligible sites have also been identified beneath the airspace in Idaho, Nevada, and within the MRHC. Although there are historic properties within APE 2, based on prior studies and consultations conducted during establishment of airspace, adverse effects to historic properties are not anticipated. No construction or ground disturbance would take place and noise levels within the APE would be a continuation of existing operations and indistinguishable from current conditions, as described in **Section 3.1**. Actions within APE 2 are not anticipated to result in any direct (i.e., physical disturbance) or indirect effect, such as in a change in setting (either visual or auditory), to any archaeological, architectural, or traditional resource. In letters dated January 29, 2018, Mountain Home AFB initiated Section 106 consultation with Shoshone-Paiute Tribes of Duck Valley Indian Reservation, Shoshone Bannock Tribes, Paiute-Shoshone Tribes of Fort McDermitt, Burns Paiute Tribe, and Northwestern Band of the Shoshone Nation and requested information on previously unidentified historic properties within APE 2 (see **Appendix B**). These tribes did not provide any additional information on historic properties within APE 2 in response to these letters or follow-up telephone calls.

3.4.3 Environmental Consequences

Analysis of adverse effects to cultural resources considers both direct and indirect impacts. Direct impacts may be the result of physically altering, damaging, or destroying all or part of a resource. Indirect impacts can occur from alterations to characteristics of the surrounding environment that contribute to the importance of the resource, introducing visual, atmospheric, or audible elements that are out of character with the property or that alter its setting or feeling.

3.4.3.1 PROPOSED ACTION

Architectural Resources. Actions associated with the proposed increase of six RSAF F-15SG aircraft at Mountain Home AFB would include a 10,000-square foot addition to the west elevation of Building 1364, a 14,000-square foot addition to the west elevation of Building 1365, a 45,000-square foot addition to the Aerospace Ground Equipment (AGE) storage yard, renovations to Building 1335 and 1361, and construction of new facilities for engine storage and an aviation sunshade. Seven temporary trailers would be installed for use as office space during the Proposed Action, shown in **Figure 3-4**, and would be removed following completion. All of the buildings subject to additions or renovations have been surveyed and evaluated for NRHP eligibility and none were determined eligible. As a result, no direct adverse effects on historic resources are anticipated and no significant impacts are expected.

Buildings 1329, 1330, 1331, and 1333 are part of an NRHP-eligible Cold War-era nose dock hangar historic district and are within view of the additions proposed to Buildings 1364 and 1365, the AGE storage yard, and new construction of engine storage buildings. The nose dock hangars and the historic district would not be affected by the construction of the additions, new

buildings, or expansion of the storage yard because the construction would occur in the context of an active AFB where infrastructure changes and these types of resources are common. The AGE addition could include an extension of fencing and installation of removable metal canopies. The building additions would be one story and designed in keeping with existing facilities. The engine storage buildings would be constructed consistent with existing facilities. In addition, the character-defining features of the historic buildings within the district—the engineering design elements— would not be impacted by the new construction. There would be no impact on the district's intact grouping of mission critical Cold War-era hangars as the additions and renovations would be in keeping with existing facilities.

Archaeological Resources. APE 1 was previously inventoried for archaeological resources as part of a base-wide survey (MHAFB 2011b). As a result of this survey, no archaeological resources were identified within APE 1. While there is a low potential to encounter previously unidentified, buried archaeological resources, in the event of inadvertent discovery, the USAF would comply with Section 106 of the NHPA and follow the standard operating procedures outlined in the installation's Integrated Cultural Resources Management Plan (MHAFB 2011b). Therefore, no significant impacts on archaeological resources are anticipated.

Resources of Traditional, Cultural, or Religious Significance. As no traditional, cultural, or religious resources are known on Mountain Home AFB, impacts on these resources are not expected. See **Appendix B** for government-to-government coordination materials.

MHRC and Airspace

As discussed in **Section 3.4.2**, adverse effects to historic properties within APE 2 are not anticipated. No construction or ground disturbance would take place and noise levels within the APE would be a continuation of existing operations and indistinguishable from current conditions, as described in **Section 3.1**. Actions within APE 2 are not anticipated to result in any direct (i.e., physical disturbance) or indirect effect, such as a change in setting (either visual or auditory), to any archaeological, architectural, traditional, cultural, or religious resource.

Section 106 Consultation. Pursuant to 36 CFR § 800.S(b), Mountain Home AFB initiated Section 106 consultation for the Undertaking in APE 1 and APE 2 with the SHPO and federally recognized tribes on January 18, 2018, and January 29, 2018, respectively.

On February 21, 2018, USAF received SHPO concurrence with the determination that Building 1361 is not eligible for listing on the NRHP and with the No Adverse Effect determination for the Undertaking.

The USAF conducted additional follow-up calls to tribes after the Section 106 initiation letter was sent and received no comments on the identification of historic properties, the APEs, or the potential for effects. See **Appendix B** for documentation related to the Section 106 consultation.

3.4.3.2 ALTERNATIVE 1

Under Alternative 1, USAF would conduct all activities described under the Proposed Action, including those proposed within APE 2, except that a 4,500-square foot addition to the west elevation of Building 1315 would be constructed rather than renovating of Building 1361. Alternative 1 would also include construction of four munitions storage facilities approximately

0.5 mile north of the flight line (see **Figure 3-5**). The effects under Alternative 1 would be the same as that under the Proposed Action, as described in **Section 3.4.3.1**, and no significant impacts are expected.

3.4.3.3 NO ACTION ALTERNATIVE

Impacts on cultural resources would not be expected under the No Action Alternative. Cultural resource conditions would remain unchanged when compared with existing conditions.

3.5 Water Resources

For the purposes of this analysis, water resources include all surface and groundwater underlying the main installation of Mountain Home AFB and the watersheds potentially impacted by runoff from the installation. The MHRC does not use groundwater or surface water resources and, as described in **Section 3.0**, impacts to water resources in the MHRC and areas below the airspace are not expected and are not discussed further.

3.5.1 Definition of the Resource

Water resources are natural and man-made sources of water that are available for use by and for the benefit of humans and the environment. Water resources relevant to Mountain Home AFB include groundwater, surface water, and wetlands. No floodplains are present on the installation.

Groundwater. Groundwater is water that exists in the saturated zone beneath the earth's surface, and includes underground streams and aquifers. It is an essential resource that functions to recharge surface water and is used for drinking, irrigation, and industrial processes. Groundwater typically can be described in terms of depth from the surface, aquifer or well capacity, water quality, recharge rate, and surrounding geologic formations.

Surface Water. Surface water resources generally consist of rivers, streams, springs, wetlands (discussed separately here), natural and artificial impoundments (e.g., ponds, lakes), and constructed drainage canals and ditches. Surface water is important for its contribution to the economic, ecological, recreational, and human health of a community or locale.

Stormwater is an important component of surface water systems because of its potential to introduce sediments and other contaminants that could degrade surface water quality. Proper management of stormwater flows, which can be intensified by high proportions of impervious surfaces associated with buildings, roads, and parking lots, is important to the management of surface water quality and natural flow characteristics.

The Clean Water Act (CWA) (33 USC § 1251 *et seq*., as amended) establishes federal limits, through the National Pollutant Discharge Elimination System (NPDES), on the amounts of specific pollutants that are discharged to surface waters to restore and maintain the chemical, physical, and biological integrity of the water. Section 401 of the CWA requires state certification for an NPDES permit would be required for any change in the quality or quantity of wastewater discharge or stormwater runoff from construction sites where 1 or more acres would be disturbed. This requirement allows each state to have input into federally approved projects that may affect its waters (rivers, streams, lakes, and wetlands) and to ensure the projects will comply with state water quality standards and any other water quality requirements of state law.

Construction actions that would disturb 1 or more acre of land require a NPDES permit. Idaho is one of only four states that defers administration of the NPDES program to USEPA; thus, USEPA is responsible for issuing and enforcing all NPDES permits in the state. The state's role is to certify that NPDES-permitted projects comply with state water quality standards. Per NPDES requirements, a project-specific SWPPP would be developed and implemented during construction to avoid discharges affecting stormwater.

The EISA Section 438 (42 USC § 17094) establishes stormwater design requirements for federal construction projects that disturb a footprint greater than 5,000 square feet of land to restore the hydrology of an area to pre-construction conditions (USEPA 2009). The intent of the act is to require federal agencies to develop in a manner that maintains or restores stormwater runoff to the maximum extent technically feasible. Implementation of EISA Section 438 can be achieved through incorporation of green infrastructure design elements and low impact development. The act employs a performance-based approach for compliance to provide site designers maximum flexibility in selecting stormwater control practices that would be appropriate for a project site. Additional guidance is provided in the *USEPA Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under EISA Section 438*.

Wetlands. Wetlands are a special category of waters of the United States and are subject to regulatory authority under Section 404 of the CWA and EO 11990, *Protection of Wetlands*. Jurisdictional wetlands are those defined by the U.S. Army Corps of Engineers (USACE) and USEPA as meeting all the criteria defined in USACE's *Wetlands Delineation Manual* (USACE 1987) and fall under the jurisdiction of USACE. For regulatory purposes under the CWA, "wetlands" are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas" (33 CFR § 329).

Section 401 of the CWA requires state certification for any permit or license issued by a federal agency for an activity that may result in a discharge into waters of the United States. This requirement allows each state to have input into federally approved projects that may affect its waters (rivers, streams, lakes, and wetlands) and to ensure the projects will comply with state water quality standards and any other water quality requirements of state law. Any Section 401 certification in Idaho also ensures that the project will not adversely impact impaired waters (waters that do not meet water quality standards) and that the project complies with applicable water quality improvement plans (total maximum daily loads). The IDEQ issues and enforces CWA Section 401 certification for construction actions requiring an NPDES permit.

3.5.2 Existing Conditions

Groundwater. Mountain Home AFB and the City of Mountain Home are on the Mountain Home Plateau, which comprises approximately 1,200 square miles of the western Snake River Plain (MHAFB 2012). Annual precipitation near the installation averages 10.5 inches (U.S. Climate Data 2017), and no perennial streams cross the Mountain Home Plateau.

The principal aquifer near Mountain Home AFB and the City of Mountain Home is the Bruneau Formation, a component of the Idaho Group (MHAFB 2007, MHAFB 2012). Depth to the Bruneau Formation beneath Mountain Home AFB is approximately 400 feet and yields from

wells tapping this resource range from 10 to 3,500 gallons per minute. The Bruneau Formation is recharged primarily from subsurface flow. Mountain Home AFB relies on a regional, unconfined aquifer for its water. This aquifer is shared with the City of Mountain Home and other surrounding communities (MHAFB 2012). These aquifers are sedimentary and volcanic aquifers composed of a mixture of loose gravels, sands, silts, and clays that comprise valley fill aquifers, intermixed with areas containing basalt, shale, and sandstone rocks that have a more consistent structure. The Mountain Home groundwater source has been designated a "Groundwater Management Area;" therefore, restrictions on additional groundwater use ensure new users will not adversely impact existing water rights.

Groundwater on the installation is contaminated with nitrate. The proposed construction areas for both the Proposed Action and Alternative 1 partially overlap with the IDEQ Nitrate Priority Area (see **Figure 3-7**). The project area is proximal to four IDEQ Nitrate Priority Monitoring Wells and proposed construction would generally occur west and northwest of the IDEQ Wellhead Protection Areas on the installation.

Surface Water. The installation is in a small (approximately 55-square mile), shallow basin within the C.J. Strike Dam Recreation Annex watershed. No drainages or natural impoundments occur on the installation. During spring snow melt or heavy thunderstorms, surface water flows into two ephemeral streams or four man-made drainage ditches. Generally, surface water on the installation flows from northeast to southwest into Canyon Creek, which ultimately drains into the Snake River. General compliance with stormwater management regulations is maintained through adherence to the *Mountain Home AFB SWPPP* (CH2M Hill 2015).

The only open waterbodies on the installation are the rapid infiltration basins and a treated effluent lagoon situated along the western boundary; however, small playas adjacent to the installation serve as low-point collection areas where surface water runoff does not reach Canyon Creek. These playas are small basins that have no outlets and, as a result, any water they collect is lost to evaporation or infiltration. There are also two storage ponds on the golf course that store treated effluent (Class A, non-potable) that is used for irrigation.

Wetlands. One small wetland area (identified as PEMCx) occurs approximately 400 feet east of where the temporary trailers would be located for the Proposed Action (CH2MHill 2007).

3.5.3 Environmental Consequences

Evaluation criteria for effects on water resources are based on water availability, quality, and use; existence of floodplains; and associated regulations. A proposed action could have significant impacts with respect to water resources if any of the following were to occur:

- Substantially reduce water availability or supply to existing users
- Overdraft groundwater basins
- Exceed safe annual yield of water supply sources
- Substantially affect water quality
- Endanger public health or safety by creating or worsening health or flood hazard conditions

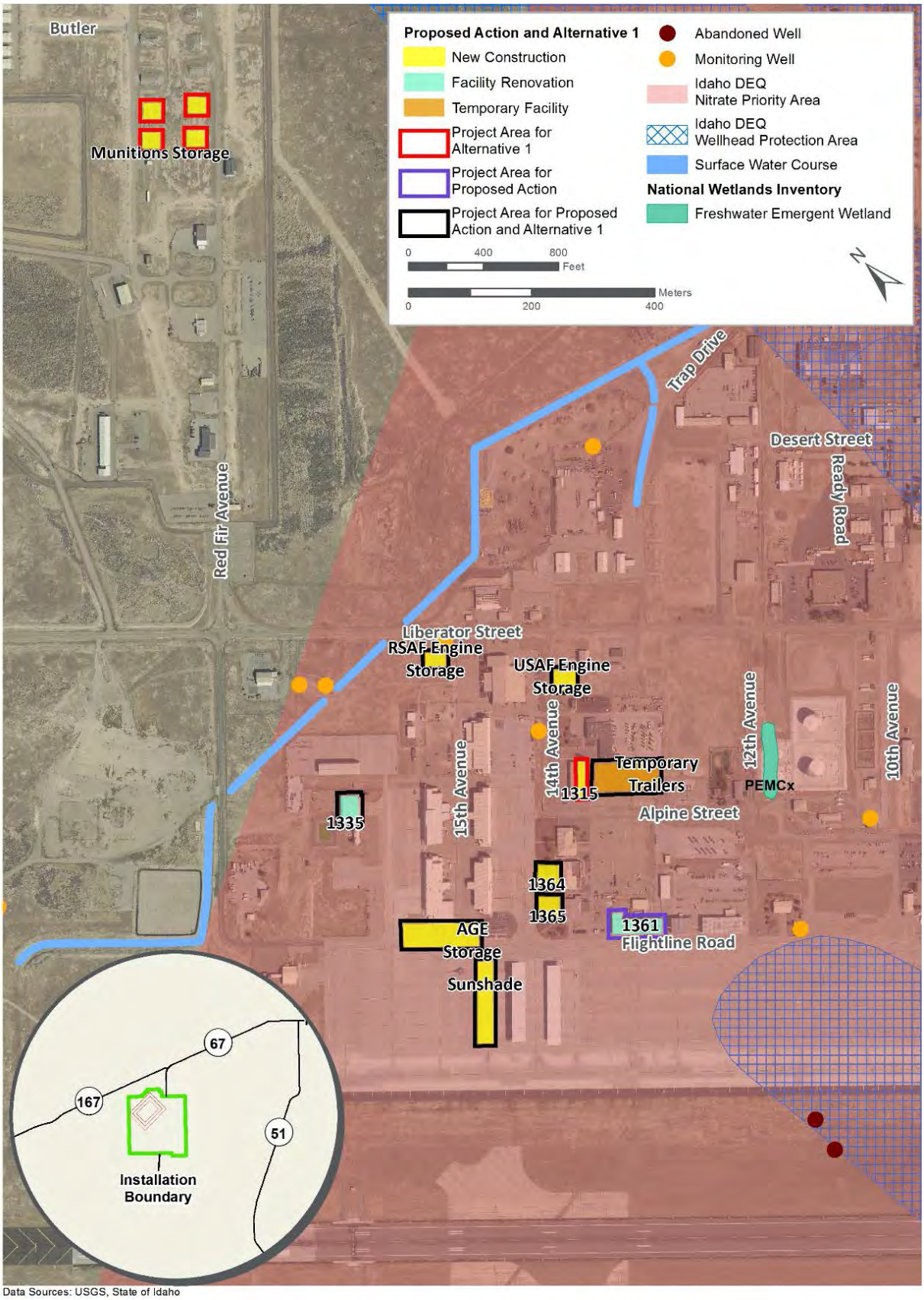

Figure 3-7. Water Resources Proximal to the Proposed Action and Alternative 1 Project Area

- Threaten or damage unique hydrologic characteristics
- Violate established laws or regulations adopted to protect water resources.

3.5.3.1 PROPOSED ACTION

Water resources addressed in this analysis are those that underlie or are immediately proximal to proposed construction sites and operational activities to support the six additional F-15SGs.

Groundwater. Soil removal and disturbance to support proposed construction would not be anticipated to intersect the local groundwater table and therefore no to negligible impacts are expected. All appropriate BMPs (e.g., storage of materials away from streams or waterways, refueling off-site, and contractor training on spill avoidance) would be implemented to avoid incidental contaminant discharges (e.g., fuel, lubricants) from construction equipment.

An increase of 2.0 acres in impervious surfaces would cause a negligible increase in runoff to nearby waterbodies, thereby decreasing groundwater recharge to the aquifer system. However, most areas proposed for impervious surfaces are in previously disturbed locations with minimal vegetation and corresponding soil filtration. Additionally, low impact development techniques would be implemented in accordance with EISA to ensure post-development hydrology is consistent with pre-development hydrology, to the extent practicable. Therefore, significant impacts on groundwater are not expected.

Surface Water. Negligible impacts could result from construction activities such as clearing, grading, trenching, and excavating, which could displace soils and sediment into nearby waterbodies. However, construction would be conducted in accordance with the NPDES permit for stormwater management and controls. Erosion and sediment controls (e.g., silt fences and sediment traps downslope from construction) and stormwater BMPs (e.g., spill cleanup and appropriate disposal) would be implemented and be consistent with the *Mountain Home AFB SWPPP*, the project-specific SWPPPs, and the *Catalog of Stormwater Best Management Practices for Idaho Cities and Counties* to minimize the potential for erosion and sedimentation into surface waters.

To meet the performance objectives of EISA, technically feasible stormwater control design features and practices that are effective in reducing the volume of stormwater runoff would be incorporated, to the extent practicable. Design strategies, such as use of green infrastructure and low impact development (e.g., use of porous pavements and bioretention areas), would also be considered to facilitate evapotranspiration and capture and use stormwater runoff (USEPA 2009). Therefore, significant impacts on surface water are not expected.

Wetlands. One wetland is more than 400 feet east of the project area. Because surface water runoff generally flows from a northeast to a southwest direction on the installation, it is unlikely that stormwater from the construction site would runoff towards the wetland. Additionally, BMPs (e.g., maintained construction buffer, sediment traps, silt fences) associated with the project-specific ESCP and the site-specific SWPPP would be implemented to avoid impacts on wetlands and other water resources. Therefore, significant impacts on wetlands are not expected.

3.5.3.2 ALTERNATIVE 1

Under Alternative 1, proposed construction would disturb 3.3 acres and impervious surfaces would increase by approximately 2.7 acres. These acreages are slightly greater than those under the Proposed Action, and therefore the potential for stormwater runoff, erosion, or spills would be similar to but greater than under the Proposed Action, as described in **Section 3.5.3.1**.

As described in **Section 3.5.3.1**, USAF would, under Alternative 1, implement erosion and sediment controls, spill prevention BMPs, and stormwater management practices consistent with the installation and site-specific SWPPPs to minimize the potential for impacts associated with erosion and sedimentation on groundwater, surface waters, and wetlands. Green infrastructure and low impact development strategies would also be incorporated to the extent practicable to offset impacts resulting from the increase in impervious surface area. Therefore, significant impacts on water resources are not expected.

3.5.3.3 NO ACTION ALTERNATIVE

Impacts on water resources would not be expected under the No Action Alternative. Water quality and availability would remain unchanged when compared with existing conditions.

3.6 Socioeconomics

For the purposes of this analysis, socioeconomics pertains to all areas where potential impacts could occur on the main installation of Mountain Home AFB and in the surrounding communities because of increases in personnel. As described in **Section 3.0**, impacts to socioeconomics in the MHRC and areas below the airspace are not expected and are not discussed further.

3.6.1 Definition of the Resource

Socioeconomics is defined as the basic attributes and resources associated with the human environment, particularly characteristics of population and economic activity. Demographics and employment characteristics provide key insights into socioeconomic conditions that might be affected by a proposed action. Changes in demographic and economic conditions are sometimes accompanied by changes in other community components, such as housing and education. The socioeconomics region of influence (ROI) is the area within which potential impacts on the local economy could occur because of the proposed increase in personnel and proposed construction and renovation projects.

3.6.2 Existing Conditions

For the purposes of this analysis, the ROI includes the counties of Ada, Elmore, and Owyhee, whose economies are closely associated with Mountain Home AFB and represent the areas that would be affected by the Proposed Action (MHAFB 2007). Information regarding population, employment, and earnings is compared with conditions for the State of Idaho. Most of the personnel to be based at Mountain Home AFB and their families likely would reside in Elmore County where the installation is located. A negligible number of personnel could choose to live in the Boise, Idaho area; however, because of the size of the Boise metropolitan area, addition of these few personnel to the local population would be indistinguishable from current conditions. Therefore, housing and school data is analyzed only for Elmore County.

Demographics. U.S. Census Data from the 2000 Census, the 2010 Census, and the 2015 American Community Survey were used to analyze the population of the spatial levels presented in **Table 3-16**. The population within Elmore County is estimated to have decreased by approximately 7.2 percent between 2000 and 2010 and 3.2 percent between 2010 and 2015. The population within Owyhee County is estimated to have increased by approximately 8.3 percent between 2000 and 2010 and decreased by approximately 1.4 percent between 2010 and 2015. The population within Ada County is estimated to have increased by approximately 30.0 percent between 2000 and 2010 and 6.4 percent between 2010 and 2015. The population within the State of Idaho is estimated to have increased by approximately 21 percent between 2000 and 2010 and 3.1 percent between 2010 and 2015 (USCB 2001, USCB 2011, USCB 2016a).

Table 3-16. Population Characteristics for 2000–2015

Population	Ada County	Elmore County	Owyhee County	Idaho
2000 Population	300,904	29,130	10,644	1,293,953
2010 Population	392,365	27,038	11,526	1,567,582
2015 Population *	417,501	26,175	11,364	1,616,547
Percent Change (2000–2010)	+30.0	-7.2	+8.3	+21.0
Percent Change (2010–2015)	+6.4	-3.2	-1.4	+3.1

Source: USCB 2001, USCB 2011, USCB 2016a
Note:*The 2015 population data represents a 5-year estimate from 2011 to 2015.

Employment Characteristics. Armed Forces personnel made up approximately 0.30 percent of the labor force within Ada County, 15 percent in Elmore County, 0.30 percent in Owyhee County, and 0.40 percent in the State of Idaho (see **Table 3-17**) (USCB 2016b). The number of active-duty personnel at Mountain Home AFB has fluctuated over the past 16 years (USAF 2001, MHAFB 2007, MHAFB 2011a, MHAFB 2015). The number of active-duty personnel has ranged from 4,449 in Fiscal Year (FY) 2001 to 3,167 in FY 2015, representing a decrease of approximately 29 percent. However, the number of active-duty personnel increased by approximately 3.7 percent (from 4,024 to 4,173) between FY 2005 and FY 2008 (MHAFB 2007, MHAFB 2011a). The number of civilian employees at Mountain Home AFB has remained relatively constant over the same time frame but has gradually increased by approximately 3.6 percent between FY 2001 and FY 2015 (USAF 2001, MHAFB 2007, MHAFB 2011a, MHAFB 2015). In addition to 3,167 active duty personnel, Mountain Home AFB employed 167 USAF Reserve/Air National Guard personnel and 910 civilians in FY 2015. These personnel had 4,303 dependents (MHAFB 2015).

As of 2015, the civilian employed population made up approximately 93 percent of the labor force in Ada County, 78 percent in Elmore County, 88 percent in Owyhee County, and 92 percent in the State of Idaho. The civilian labor force is divided into the major industries shown in **Table 3-17**. The largest industry in Ada and Elmore Counties was the educational, health, and social services industry, which employed approximately 24 and 20 percent of the labor force, respectively. The largest industry in Owyhee County was agriculture, forestry, fishing, and hunting and mining, which employed approximately 29 percent of the labor force.

Table 3-17. Employment Characteristics by Industry for 2011–2015

Industry	Ada County	Elmore County	Owyhee County	Idaho
Total labor force	214,655	12,874	4,890	774,526
Percent of population employed by the Armed Forces	0.30	15.0	0.30	0.40
Percent of population 16 years old and over employed in the civilian labor force	93.0	78.0	88.0	92.0
Percent of Population by Industry in the Civilian Labor Force				
Agriculture, forestry, fishing, and hunting and mining	1.5	6.3	29.2	5.6
Construction	6.0	5.1	4.8	7.1
Manufacturing	9.3	8.0	14	9.9
Wholesale trade	2.7	1.2	2.6	2.6
Retail trade	12.0	11.0	10.0	12.0
Transportation and warehousing, and utilities	4.2	6.1	6.4	4.8
Information	2.7	1.2	0.6	1.9
Finance, insurance, real estate, and rental and leasing	6.6	4.4	1.7	5.2
Professional, scientific, management, administrative, and waste management services	13.0	4.9	4.1	9.7
Education, health, and social services	24.0	20.0	13.0	23.0
Arts, entertainment and recreation	8.7	8.4	4.7	8.9
Other services (except public administration)	4.1	5.1	4.1	4.4
Public administration	6.2	18.0	4.6	5.2

Source: USCB 2016b
Note: Data in this table are from the 2011–2015 American Community Survey 5-year Estimates.

The second and third largest industries in Ada County and the corresponding percentage of the labor force employed within those industries were professional, scientific, management, administrative and waste management services (13 percent) and retail trade (12 percent). The second and third largest industries in Elmore County were public administration (18 percent) and retail trade (11 percent). The second and third largest industries in Owyhee County were manufacturing (14 percent) and education, health, and social services (13 percent). The construction industry represented approximately 6.0 percent, 5.1 percent, and 4.8 percent of the labor force in the Ada, Elmore, and Owyhee Counties, respectively. In the State of Idaho, the three largest industries were the educational, health, and social services industry (23 percent), retail trade (12 percent), and manufacturing (9.9 percent). The construction industry represented approximately 7.1 percent of the state labor force (USCB 2016b).

Mountain Home AFB is one of the largest employers in the region. Payroll expenditures associated with active-duty military and civilian personnel on the installation were approximately $202 million in FY 2015. In addition, Mountain Home AFB purchases significant quantities of goods and services from local regional firms. Construction costs; service contracts; and materials, supplies, and equipment for the installation totaled over $42 million in FY 2015. Further, USAF estimates that the economic stimulus of Mountain Home AFB created approximately 2,127 secondary jobs in the civilian economy, representing nearly $98 million to the local economy in FY 2015 (MHAFB 2015).

Housing and Schools. **Table 3-18** presents specific information on total and available housing within Elmore County. Of the total housing units in the county, approximately 20 percent (or approximately 2,410 housing units) were vacant as of 2015 (USCB 2016c).

Table 3-18. Housing Characteristics for 2011–2015

Housing Characteristics	Elmore County
Total Housing Units	12,195
Total Occupied Housing Units	9,785 (80.0%)
Total Vacant Housing Units	2,410 (20.0%)
Percent Owner-Occupied	59.0
Percent Renter-Occupied	41.0

Source: USCB 2016c

There are 15 public schools in Elmore County that serve approximately 4,649 students. The student to teacher ratio in the county is 19:1 (Public School Review 2017). Mountain Home School District #193 contains five elementary schools, two middle/junior high schools, and two high schools (Mountain Home School District 2015).

3.6.3 Environmental Consequences

Socioeconomic impacts would be considered potentially significant if changes associated with the Proposed Action substantially affected local economy, employment, or economic stability in the region, or resulted in a substantial change in the population that affected the demand for housing or education services.

3.6.3.1 PROPOSED ACTION

In FY 2015, active-duty personnel at Mountain Home AFB earned $49,671 on average while civilians averaged $39,500. Based on this average, and assuming RSAF salaries would be comparable, military personnel associated with the Proposed Action would generate approximately $8.8 million in payroll disbursements in the region and civilians would generate approximately $1.2 million. This total would represent less than 3 percent of the Mountain Home AFB FY 2015 payroll (MHAFB 2015). Therefore, it is unlikely that this increase in payroll would provide quantifiable economic impact within the ROI.

The proposed construction and renovation projects would have beneficial impacts on the ROI's economy and employment levels. Construction of new facilities and renovation projects would provide a direct temporary increase in income for construction workers, and indirect increases in retail trade revenues through the purchase of equipment, supplies, and materials. It is anticipated that work would be done by both skilled and unskilled labor force already within the ROI. As of 2015, there were approximately 12,785 construction workers within the ROI (USCB 2016b).

Under the Proposed Action, 177 military personnel, 30 civilian personnel, and approximately 336 dependents would relocate to areas surrounding Mountain View AFB in Elmore County. This total population increase of approximately 543 individuals would result in a total population increase of approximately 2.1 percent in Elmore County. As stated in **Section 2.1.2**, it is assumed that all personnel associated with the Proposed Action would reside in off-installation

housing because of limited on-installation housing availability. A conservative way to estimate the increase in housing requirements would be to assume one housing unit is required for each additional personnel position, which would result in an increase in the demand for housing within the ROI by 207 housing units (one housing unit each for 177 military personnel and 30 civilian personnel). As of 2015, approximately 20 percent (approximately 2,410 housing units) were vacant in Elmore County (USCB 2016c). Therefore, the housing market would have adequate capacity to accommodate the population change.

Using the assumption that 1.5 of the estimated 2.5 dependents per each additional personnel under the Proposed Action are school-age students, there would be an increase of approximately 202 students in Elmore County. This would result in an increase of approximately 4% in the county's school enrollment, which would be readily absorbed into to the local elementary and secondary schools (Public School Review 2017); therefore, creating no additional stress on the school system.

Overall, significant impacts on demographics, employment, housing and schools, and the local economy are not expected.

3.6.3.2 ALTERNATIVE 1

Socioeconomic impacts under Alternative 1 would be similar to those described for the Proposed Action in **Section 3.6.3.1**. Additional beneficial impacts on the ROI's economy and employment levels would be expected because of the additional construction projects proposed under Alternative 1. The proposed increase in personnel would be the same as under the Proposed Action; therefore, there would be no difference in impacts associated with the increase in payroll in the ROI or on housing and education in Elmore County.

3.6.3.3 NO ACTION ALTERNATIVE

Impacts on socioeconomics would not be expected under the No Action Alternative. Socioeconomic conditions would remain unchanged when compared with existing conditions.

3.7 Health and Safety

3.7.1 Definition of the Resource

A safe environment is one in which there is no, or an optimally reduced, potential for death, serious bodily injury or illness, or property damage. Human health and safety address the well-being, safety, and health of members of the public, contractors, and USAF personnel during the various aspects of the Proposed Action and alternatives.

Safety and accident hazards can often be identified and reduced or eliminated. Necessary elements for an accident-prone situation or environment include the presence of the hazard itself together with the exposed (and possibly susceptible) population. The degree of exposure depends primarily on the proximity of the hazard to the population. The proper operation, maintenance, fueling, and repair of aircraft and equipment also carry important safety implications. Activities that can be hazardous include transportation, maintenance and repair activities, construction, and activities that occur in extremely noisy environments.

3.7.2 Existing Conditions

Mountain Home AFB is a secure military installation with access limited to military personnel, civilian employees, and military families. Operations and maintenance activities conducted on Mountain Home AFB, MHRC, and other facilities are performed in accordance with applicable USAF safety regulations, published USAF Technical Orders, and standards prescribed by USAF Occupational Safety and Health requirements. Adherence to industrial-type safety procedures and directives ensures safe working conditions. The handling, processing, storage, and disposal of potentially hazardous materials associated with these activities are accomplished in accordance with all federal and state requirements applicable to the substance generated. Mountain Home AFB provides emergency services (e.g., fire and law enforcement), which include emergency response and force protection, for the installation. The 366 FW/SEF (Flight Safety) maintains an aggressive program to minimize bird/wildlife aircraft strike hazard (BASH) potential. For additional discussion regarding BASH, see **Section 3.8**.

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Construction Safety. All contractors performing construction activities are responsible for following federal Occupational Safety and Health Administration (OSHA) regulations and are required to conduct these activities in a manner that does not increase risk to workers or the public. OSHA regulations address the health and safety of people at work and cover potential exposure to a wide range of chemical, physical, and biological hazards, and ergonomic stressors. The regulations are designed to control these hazards by eliminating exposure to the hazards via administrative or engineering controls, substitution, use of personal protective equipment (PPE), and availability of safety data sheets.

Occupational health and safety of employees is the responsibility of each employer. Employer responsibilities are to review potentially hazardous workplace conditions; monitor exposure to workplace chemical (e.g., asbestos, lead, hazardous substances), physical (e.g., noise propagation, falls), and biological (e.g., infectious waste, wildlife, poisonous plants) agents, and ergonomic stressors; recommend and evaluate controls (e.g., prevention, administrative, engineering, PPE) to ensure exposure to personnel is eliminated or adequately controlled; and ensure a medical surveillance program is in place to perform occupational health physicals for workers subject to the use of respiratory protection or engaged in hazardous waste, asbestos, lead, or other work requiring medical monitoring.

Operations and Maintenance. DoD Directive 4715.1E, *Environment, Safety, and Occupational Health*, and AFI 91-203, *Air Force Consolidated Occupational Safety Instruction*, provide industrial and general occupational safety guidance for implementation of the OSHA standards in 29 CFR. AFI 91-203 consolidates Air Force Policy Directive 91-2, *Safety Programs,* and all Air Force Occupational Safety and Health 91-series standards. AFI 91-202, *The U.S. Air Force Mishap Prevention Program,* outlines and guides mishap prevention associated and program requirements, assigns responsibilities for program elements, and contains program management information. The purpose of these guidance documents is to minimize loss of USAF resources and to protect personnel from occupational deaths, injuries, or illnesses by managing risks.

Personnel at Mountain Home AFB control, maintain, and store all ordnance and munitions required for mission performance. This includes training and inert bombs and rockets, live bombs and rockets, chaff, flares, gun ammunition, small arms ammunition, and other explosive and pyrotechnic devices. Munitions are handled and stored in accordance with USAF explosive safety directives outlined in Air Force Manual (AFMAN) 91-201, *Explosives Safety Standards*. AFMAN 91-201 outlines construction and quantity-distance (QD) separation standards required by DoD and the USAF for facilities used for the storage, handling, and maintenance of munitions.

Aircraft Mishaps. Aircraft mishaps are classified as A, B, C, or D. Class A mishaps are the most severe with total property damage of $2 million or more or a fatality or permanent total disability. Safety records indicate only one Class A mishap has occurred at Mountain Home AFB since 2000. During an airshow in 2003, an F-16 from the Thunderbirds crashed while performing aerobatics. Aircraft flight operations at Mountain Home AFB are governed by standard flight rules.

In emergency situations, all models of the F-15 aircraft can jettison fuel to reduce aircraft gross weight for flight safety. When circumstances require it, fuel jettisoning is permitted above 5,000 feet AGL and only over unpopulated areas. AFI 11-2F-15 Volume 3, *F-15 Operations Procedures*, addresses approved circumstances and protocols for fuel jettison; local operating policies define specific fuel dumping areas for the installation.

MHRC

Aircraft Mishaps. Aircraft flight operations in MHRC are governed by standard flight rules. Under the Commander 366 FW, the 366 Operations Group is the designated operating agency for the range and is responsible for operational monitoring, administration, and general safety of MHRC. Activities in the MHRC must comply with AFI 13-212 Volume 1, *Range Planning and Operations*. Safety records indicate only one Class A mishap occurred within the MHRC since 2000.

Fire Management. Contractors operating on JBR and SCR provide fire management and response for the ranges and associated facilities. The fire management and response staff and equipment meet the requirements of AFI 32-2001, *Fire Emergency Services (FES) Program*. However, under the July 2008 Support Agreement between 366 FW and the Bureau of Land Management (BLM) Lower Snake River District, the BLM provides firefighting support for all lands outside the SCR Exclusive Use Area, JBR, emitter sites, and No-Drop targets. For lands within the SCR Exclusive Use Area and JBR, BLM only supplies assistance when requested.

Fire prevention within the impact areas of the JBR and SCR include reduction of ignition sources, management of vegetation and fuels, and maintenance of firebreaks. Fire risk is higher in the impact areas because of ordnance use and around the range facilities resulting from maintenance activities. Therefore, Mountain Home AFB employs a program of annually reducing fire fuels in the impact areas and implements aggressive fire suppression June through August. During dry years, the fire season can extend from May to November. Both JBR and SCR support fire suppression equipment and personnel, ensuring rapid response to any fires that may start. Mountain Home AFB also precludes the use of flares, “hot-spot” training ordnance, and pyrotechnic devices during high, very high, and extreme fire risk conditions.

Implementing the fire management and suppression programs has substantially reduced both the number and extent of fires occurring on the ranges (MHAFB 2012).

Munitions. Expenditure of ordnance (inert only) during training operations is restricted to JBR and SCR. Strafing with 20-mm training rounds during training operations occurs at SCR. Current authorizations allow the release of chaff in the Owyhee and Paradise MOAs, as well as on the ranges and their surrounding airspace. Chaff expenditure is not authorized in the Saddle MOA or over the Duck Valley Reservation.

Chaff consists of very small fibers of aluminum-coated mica that reflect radar signals and, when dispensed from an aircraft, form a cloud that temporarily hides the aircraft from radar detection. Although the chaff may be ejected from an aircraft using a pyrotechnic charge, the chaff itself is not explosive. Chaff is composed of silicon dioxide fibers ranging in diameter from 0.7 to 1 mms with an aluminum alloy and a slip coating of stearic acid. Analysis of the materials comprising chaff indicate that they are nontoxic in the quantities used (USAF 1997). Approximately 500,000 to 3,000,000 fibers are contained in each chaff bundle. Training chaff is specifically developed so it does not interfere with radar used by the Federal Aviation Administration for air traffic control.

3.7.3 Environmental Consequences

Any increase in safety risks is considered an adverse impact on safety. Significant impacts on safety would occur if the Proposed Action would do either of the following:

- Substantially increase risks associated with the safety of USAF personnel or the general public
- Introduce a new safety risk for which USAF is not prepared or does not have adequate management and response plans in place.

3.7.3.1 PROPOSED ACTION

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Construction Safety. Negligible impacts on contractor health and safety would be expected from the Proposed Action. Contractors performing renovation and construction work would be exposed to an environment containing slightly greater health and safety risks than a non-construction environment.

To minimize health and safety risks, construction contractors would be required to use appropriate PPE and establish and maintain site-specific health and safety programs for their employees. Contractor health and safety programs would follow all applicable federal OSHA regulations and would be reviewed by Mountain Home AFB personnel prior to work beginning to ensure that appropriate measures are taken to reduce the potential exposure of workers and installation personnel to health and safety risks. Safety data sheets for all hazardous materials and chemicals stored at the worksite would be kept on site and be available for immediate review. Therefore, significant impacts on contractor safety are not expected.

Operations and Maintenance. Negligible impacts are anticipated from increasing annual flight operations at the airfield by approximately 14 percent. Airfield and airspace operations would

continue to follow all applicable safety guidelines and regulations and significant impacts are not expected.

Aircraft Mishaps. No impacts related to aircraft mishaps are anticipated from the Proposed Action. The slight increases in aircraft operations from the Proposed Action would not be expected to result in an increase in Class A mishaps. As presented in **Section 3.7.2**, aircraft mishaps are rare at the installation and the number would not be expected to increase under the Proposed Action. All aircraft flight operations would continue to be conducted in accordance with standard flight rules and local operating procedures and policies.

MHRC

Aircraft Mishaps. No impacts related to aircraft mishaps are anticipated from the Proposed Action. Although the Proposed Action would increase annual flight operations, these slight increases would not be expected to result in an increase in Class A mishaps. As presented in **Section 3.7.2**, aircraft mishaps are rare in the MHRC and the number would not be expected to increase under the Proposed Action. All aircraft flight operations would continue to be conducted in accordance with standard flight rules and local operating procedures and policies.

Fire Management. No impacts related to fire safety and management are anticipated from the Proposed Action. The Proposed Action would not be expected to result in an increase in fire risks. Current procedures to minimize fire risks associated with flight training would continue. Operations and maintenance activities on the ranges and associated facilities would continue to be conducted using current USAF procedures and policies. All activities would be conducted by technically qualified personnel and in accordance with all applicable USAF requirements and fire management plans.

Munitions. Negligible impacts would be anticipated from the proposed 8 and 19 percent increases in annual inert 20-mm and chaff expenditures, respectively. All munitions activities and chaff releases would be conducted in areas where these actions already occur, no new ordnance would be released, and all existing safety and fire restrictions would continue to be followed. Additionally, operational constraints pertaining to the use of specific delivery tactics, ordnance type, or aircraft headings have been developed and would be followed to mitigate any potentially unsafe condition and to ensure that ordnance remains within the applicable safety footprint. Therefore, significant impacts are not expected.

3.7.3.2 ALTERNATIVE 1

The impacts on health and safety from Alternative 1 would be similar to those described under the Proposed Action in **Section 3.7.3.1**. Additionally, the proposed munitions storage facilities under Alternative 1 would be constructed and QD arcs would be adjusted, as necessary, in accordance with construction and QD separation standards outlined in AFMAN 91-201. Therefore, significant impacts from the increase in munitions storage capacity are not expected.

3.7.3.3 NO ACTION ALTERNATIVE

Impacts on health and safety would not be expected under the No Action Alternative. Health and safety conditions would remain unchanged when compared with existing conditions.

3.8 Biological Resources

For the purposes of this analysis, biological resources information pertains to all areas where potential impacts could occur on the main installation of Mountain Home AFB. As described in **Section 3.0** and in the 2007 EA addressing beddown of the RSAF aircraft on the installation (MHAFB 2007), munitions releases currently occur in MHRC, and analysis of these activities has determined impacts on biological resources are negligible. Because the munitions releases associated with the Proposed Action would not appreciably affect existing conditions, no further analysis of these activities is warranted.

3.8.1 Definition of the Resource

Biological resources include native or naturalized plants and animals and the habitats (e.g., grasslands, forests, and wetlands) in which they exist. Protected and sensitive biological resources include federally listed species (threatened or endangered) and those species proposed for listing, designated or proposed critical habitat as designated by U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), species of concern managed under conservation agreements, state-listed species, and migratory birds.

The Endangered Species Act (ESA) (16 USC § 1536) requires federal agencies, in consultation with the USFWS and NMFS, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. Air Force Policy Directive 32-70, *Environmental Quality*, directs USAF implementation of the ESA.

The Migratory Bird Treaty Act (MBTA) of 1918 is the primary legislation in the United States established to conserve migratory birds. The MBTA prohibits the intentional and unintentional taking, killing, or possessing of migratory birds unless permitted by regulation. EO 13186, *Responsibilities of Federal Agencies to Protect Birds*, provides a specific framework for the federal government's compliance with its MBTA obligations and aids in incorporating national planning for bird conservation into agency programs. A Memorandum of Understanding between DoD and USFWS promotes the conservation of migratory birds in compliance with EO 13186.

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald and golden eagles, including their parts, nests, or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb."

The USFWS oversees the protection and management of federally protected species. The Idaho Department of Fish and Game (IDFG) oversees the protection and management of state-protected species and species of conservation concern. AFI 32-7064, *Integrated Natural Resources Management*, calls for the protection and conservation of state-listed species when not in direct conflict with the military mission. Mountain Home AFB applies for appropriate permits for actions that may affect state-listed species and cooperates with the IDFG to further the goals of the Idaho State Wildlife Action Plan.

3.8.2 Existing Conditions

Vegetation. Mountain Home AFB exists within the regional landform and vegetation classification known as the Intermountain Sagebrush Province/Sagebrush Steppe Ecosystem, which is widespread over much of southern Idaho, eastern Oregon, eastern Washington, and portions of northern Nevada, California, and Utah (MHAFB 2012). Historically, this ecosystem contained a large diversity of landforms and vegetation types, ranging from vast expanses of flat sagebrush covered plateaus to rugged mountains blanketed with juniper woodlands and grasslands. However, significant declines in the amount and quality of sagebrush habitat have occurred over the last 15 years. A few remnant patches of sagebrush still exist and most have a weedy understory. These remnant patches have been greatly degraded by off-highway vehicle activity, use during military exercises, and weed invasion.

Wildlife. Mountain Home AFB actively manages wildlife on the installation and cooperates with IDFG, USFWS, and the BLM. Currently, 60 different species of wildlife have been identified on Mountain Home AFB (MHAFB 2012). During the vegetation surveys of the installation, only small, isolated stands of native habitat were located. Most lands on and surrounding the installation have been converted to non-native species by fires, agriculture, and development. This limited habitat and small patch size cannot support wide-ranging species, such as mule deer (*Odocoileus hemionus*), pronghorn antelope (*Antilocapra americana*), and sage-grouse (*Centrocercus urophasianus*). However, many smaller mammal, reptile, and bird species have adapted to urban areas and human disturbance. Raptors, eagles, and owls commonly occur on the installation. Burrowing owls (*Athene cunicularia*) are known to occur on the installation with burrows located in several areas near operational activities (e.g., adjacent to the flightline in the north, and exercise area MOAB in the southwest). Bats have been observed in the evenings and may roost in buildings and trees and forage around lights. Bats on Mountain Home AFB are generally associated with buildings, the urban forest, and the golf course. The bat species identified on Mountain Home AFB are the silver-haired bat (*Lasionycteris noctivagans*), big brown bat (*Eptesicus fuscus*), long-eared myotis (*Myotis evotis*), and Yuma myotis (*Myotis yumanensis*). Wildlife habitat on main base Mountain Home AFB is maintained or removed through vegetation manipulation and ground disturbance, and is largely managed through post-fire rehabilitation. The installation comprises four dominant wildlife habitat types as defined by topography and vegetation:

- landscaped areas around residential and installation facilities
- isolated sagebrush flats
- flat areas dominated by exotic annual weed species
- rubble piles dominated by exotic annual weed species (MHAFB 2012).

Other notable areas are the rapid infiltration basins and the treated effluent storage lagoon that attract waterfowl. The Mountain Home AFB *Bird and Wildlife Strike Hazard Safety Plan* outlines operational protocols for airfield and airspace avoidance of strike hazards (MHAFB 2012).

Protected Species. According to the USFWS Information for Planning and Consultation-Environmental Conservation Online System, Slickspot peppergrass (*Lepidium papilliferum*) is the only federally listed species that could occur on or near Mountain Home AFB (USFWS 2017). No state-listed species have been observed on the installation.

Slickspot peppergrass is a small annual or biennial plant species with small white flowers (USFWS 2016). When this species grows as a biennial, it does not produce flowers the first year but remains a small round rosette of green leaves. Habitat is restricted to semi-arid sagebrush-steppe ecosystems. Slickspot peppergrass grows primarily within slickspots, which are unique microenvironments consisting of bare areas that temporarily pool water and contain soils that are significantly higher in sodium and clay content (MHAFB 2012). These slickspot microenvironments typically cover an area of less than 100 square meters and usually occur in proximally located groups of at least three (up to more than 20) individual slickspots. These habitats are often interspersed among other vegetation. Slickspots are generally unvegetated or sparsely vegetated. Disturbed slickspots may have a high- to low-percent cover of weedy species such as clasping leaf peppergrass (*Lepidium perfoliatum*), cheatgrass (*Bromus tectorum*), and bur buttercup (*Ceratocephala testiculata*). Slickspot peppergrass is occasionally found outside of slickspots, usually in openings near slickspots. The known range for this species is Idaho's western Snake River Plain and neighboring foothills in Owyhee, Payette, Gem, Canyon, Ada, and Elmore Counties (MHAFB 2012). Mountain Home AFB and BLM extensively surveyed areas of the installation and ground areas underlying the MHRC and determined that slickspot peppergrass occurred in areas of the JBR (MHAFB 2012). Neither the species, nor suitable habitat to support the species, has been observed on the installation. No habitat for any other federally listed threatened or endangered species is present on Mountain Home AFB.

Species of concern generally include those federally listed as threatened or endangered, those listed as species of greatest conservation need in Idaho by the IDFG, and BLM Sensitive species. Bald and golden eagles are also a Species of Concern because of their designation under the Bald and Golden Eagle Protection Act and the MBTA (MHAFB 2012). **Table 3-19** lists the Protected Species and Species of Concern Potentially Occurring in the project area. This list includes Birds of Conservation Concern that may be present in or near the project area to be affected by the proposed activities (USFWS 2017). USFWS has determined that these birds are of priority concern because without additional conservation actions they are likely to become candidates for listing under the ESA.

3.8.3 Environmental Consequences

Potential impacts on biological resources are evaluated based on the following criteria:

- importance (e.g., legal, commercial, recreational, ecological, scientific) of the resource
- proportion of the resource that would be affected relative to its occurrence in the region
- sensitivity of the resource to proposed activities
- duration of ecological impacts
- potential for "taking" of federally listed species
- impact on critical habitat.

Impacts on biological resources would be significant if species of concern or their habitats, based on legal status or ecological importance, were adversely affected over large areas. Impacts would also be considered significant if disturbances cause reductions in population size or distribution that would jeopardize the continued existence of a species.

Table 3-19. Protected Species with Potential to Occur in the Project Area

Common Name	Scientific Name
American white pelican [1]	*Pelecanus erythrorhynchos*
Bald eagle [1]	*Haliaeetus leucocephalus*
Brewer's sparrow [1,2]	*Spizella breweri*
California gull [1]	*Larus californicus*
Calliope hummingbird [2]	*Stellula calliope*
Golden eagle [1,2]	*Aquila chrysaetos*
Green-tailed towhee [2]	*Pipilo chlorurus*
Lesser yellowlegs [2]	*Tringa flavipes*
Lewis's woodpecker [2]	*Melanerpes lewis*
Loggerhead shrike [1]	*Lanius ludovicianus*
Long-billed curlew [1,2]	*Numenius americanus*
Long-eared myotis [1]	*Myotis evotis*
Marbled godwit [2]	*Limosa fedoa*
Olive-sided flycatcher [2]	*Contopus cooperi*
Sagebrush sparrow [1]	*Artemisiospiza nevadensis*
Sage thrasher [1,2]	*Oreoscoptes montanus*
Snowy plover [2]	*Charadrius nivosus*
Western burrowing owl [1]	*Athene cunicularia*
White headed woodpecker [2]	*Leuconotopicus albolarvatus*
White-faced ibis [1]	*Plegadis chihi*
Williamson's sapsucker [2]	*Sphyrapicus thyroideus*
Willow flycatcher [1]	*Empidonax traillii*
Yuma myotis [1]	*Myotis yumanensis*

Source: [1] MHAFB 2012; [2] USFWS 2017

A habitat perspective is used to provide a framework for analysis of general classes of effects (i.e., removal of critical habitat, noise, human disturbance). Ground disturbance and noise associated with maintenance and repair activities might directly or indirectly cause potential effects on biological resources. Direct effects from ground disturbance were evaluated by identifying the types and locations of potential ground-disturbing activities in correlation to important biological resources. Mortality of individuals, habitat removal, and damage or degradation of habitats might be effects associated with ground-disturbing activities.

Noise associated with a proposed action might be of sufficient magnitude to result in the direct loss of individuals and reduce reproductive output within certain ecological settings. Ultimately, extreme cases of such stresses could have the potential to lead to population declines or local or regional extinction. To evaluate effects, considerations were given to the number of individuals or critical species involved, amount of habitat affected, relationship of the area affected to total available habitat within the region, type of stressors involved, and magnitude of the effects.

3.8.3.1 PROPOSED ACTION

Negligible impacts on biological resources would be expected from the proposed construction and renovation projects and aircraft operations at the airfield. Construction would occur in previously disturbed areas where there is already low habitat availability and suitability to support wildlife and vegetation and increased presence of aircraft would cause negligible impacts on the noise and operating environment.

Vegetation. Potential impacts on vegetation would be negligible because the proposed construction and renovation would occur on previously disturbed areas. Further, these areas are already highly disturbed from ongoing routine maintenance and landscaping activities, and are of low ecological value. Therefore, significant impacts on vegetation are not expected.

Wildlife. Although some birds, small mammals, invertebrates, and other common, small wildlife species may use areas within the proposed project area for shelter and feeding, abundance of these animals is low there because vegetation is regularly disturbed and there are few native plant species. Therefore, impacts on wildlife vegetation removal to accommodate the proposed developments would be negligible. Impacts from construction noise would be localized and short-term, occurring only during daylight hours lasting only the duration of construction. Because wildlife in the area are currently exposed to frequent high-intensity activities, noise from aircraft operations, and other airfield activities, habitat displacement or avoidance impacts on highly mobile species (e.g., birds) from construction noise would be negligible. Additionally, as appropriate, high impacts activities would be conducted outside of breeding seasons to avoid impacts on the burrowing owl.

Over the long term, the increased presence of aircraft and associated operational noise on and near the installation would have negligible impacts on wildlife populations because species on the installation are accustomed to the operating environment. All of the proposed flight operations would be consistent with the existing day and night flight activities for the RSAF program and would be conducted in accordance with the installation's *Bird and Wildlife Strike Hazard Safety Plan*. Therefore, significant impacts on wildlife are not expected.

Protected Species. No effects on federally listed species would be expected from Proposed Action because none are known to occur in the project area or around the airfield. Additionally, the entire project area is within semi-developed or developed grounds where the vegetation and landscaping is maintained regularly and contains little native vegetation.

Impacts associated with the proposed 14 percent increase in operations would include the increased potential for bird and wildlife-aircraft strikes. However, the overall potential for bird and wildlife-aircraft strikes is not expected to be significantly greater than current levels because all safety actions in place for existing RSAF F-15SG operations would continue to be in place for the addition of six F-15SGs. Also, the proposed F-15SG flight operations would be consistent with those currently conducted by the RSAF at Mountain Home AFB. The RSAF F-15SG flight program would continue to follow the Mountain Home AFB *Bird and Wildlife Strike Hazard Safety Plan*, and would incorporate use of existing bird avoidance technologies and practices to minimize potential for bird and wildlife-aircraft strikes.

3.8.3.2 ALTERNATIVE 1

Vegetation. Potential impacts on vegetation under Alternative 1 would be similar to, but greater than, those described for the Proposed Action in **Section 3.8.3.1** because of increases in ground disturbance and impervious surfaces. However, impacts on vegetation would be negligible because the project area is comprised of previously disturbed and landscaped lands, not native vegetation; therefore, significant impacts are not expected.

Wildlife. Impacts from the proposed construction and renovation would be the same as described for the Proposed Action in **Section 3.8.3.1** and significant impacts are not expected. Although the project area for Alternative 1 is larger than the Proposed Acton project area, it also is already disturbed and routinely maintained and provides minimal wildlife habitat of very low ecological quality. Additionally, wildlife in the area are currently exposed to frequent high-intensity activities, noise from aircraft operations, and other airfield activities, and negligible impacts from habitat displacement or avoidance impacts on highly mobile species (e.g., birds) would be expected.

Protected Species. No effects on federally listed species would be expected from Alternative 1 because none are known to occur in the project area or around the airfield. Additionally, the entire project area is within semi-developed or developed grounds where the vegetation and landscaping is maintained regularly and contains little native vegetation. As noted for the Proposed Action in **Section 3.8.3.1**, bird and wildlife avoidance protocols would be followed for all flight operations to avoid any potential for increased strike hazard associated with the increase in operations.

3.8.3.3 NO ACTION ALTERNATIVE

Impacts on biological resources would not be expected under the No Action Alternative. Biological resources would remain unchanged when compared with existing conditions.

3.9 Hazardous Material and Wastes

3.9.1 Definition of the Resource

Hazardous Materials, Hazardous Wastes, and Petroleum Products. Hazardous materials are defined by 49 CFR § 171.8 as hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table (49 CFR § 172.101), and materials that meet the defining criteria for hazard classes and divisions in 49 CFR § 173. Hazardous wastes are defined by the Resource Conservation and Recovery Act (RCRA) at 42 USC § 6903(5), as amended by the Hazardous and Solid Waste Amendments, as “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.” USAF installations manage hazardous materials through AFI 32-7086, *Hazardous Materials Management*, and hazardous wastes through AFI 32-7042, *Waste Management*.

Petroleum products include crude oil or any derivative thereof, such as gasoline, diesel, or propane. They are considered hazardous materials because they present health hazards to users in the event of incidental releases or extended exposure to their vapors.

Evaluation of hazardous materials and wastes focuses on the storage, transportation, handling, and use of hazardous materials, as well as the generation, storage, transportation, handling, and disposal of hazardous wastes. In addition to being a threat to humans, the improper release or storage of hazardous materials, hazardous wastes, and petroleum products can threaten the health and well-being of wildlife species, habitats, soil systems, and water resources.

Munitions-Related Wastes. Expending munitions generates munitions-related waste referred to as range residue. The accumulation of range residue on a range can result in the contamination of soil, surface water, and groundwater if left in place. USAF has established instructions for managing range residue in AFI 13-212, *Range Planning and Operations*.

Special Hazards. Special hazards are substances that might pose a risk to human health and are addressed separately from hazardous materials and hazardous wastes. Special hazards include asbestos-containing materials (ACMs), lead-based paint (LBP), and polychlorinated biphenyls (PCBs), all of which are typically found in buildings and utilities infrastructure.

Asbestos is regulated by USEPA under the CAA; Toxic Substances Control Act; and Comprehensive Environmental Response, Compensation, and Liability Act. USEPA has established that any material containing more than one percent asbestos by weight is considered an ACM. ACMs are generally found in building materials such as floor tiles, mastic, roofing materials, pipe wrap, and wall plaster. USEPA has implemented several bans on various ACMs between 1973 and 1990, so ACMs may be present in older buildings (i.e., constructed before 1990). LBP was commonly used prior to its ban in 1978; therefore, buildings constructed prior to 1978 may contain LBP. PCBs are man-made chemicals that persist in the environment and were widely used in building materials (e.g., caulk) and electrical products prior to 1979. Structures constructed prior to 1979 potentially include PCB-containing building materials.

Environmental Contamination. The Defense Environmental Restoration Program was formally established by Congress in 1986 to provide for the cleanup of DoD property at active installations, Base Realignment and Closure installations, and formerly used defense sites throughout the United States and its territories. The two restoration programs under the Defense Environmental Restoration Program are the Environmental Restoration Program and the Military Munitions Response Program. The Environmental Restoration Program addresses contaminated sites while the Military Munitions Response Program addresses nonoperational military ranges and other sites suspected or known to contain unexploded ordnance, discarded military munitions, or munitions constituents. The USAF has organized all known and suspected environmental contamination sites at Mountain Home AFB into solid waste management units (SWMUs). The SWMUs include sites in the Environmental Restoration Program and Military Munitions Response Program. Each SWMU is investigated and appropriate remedial actions are taken under the supervision of the IDEQ. When no further remedial action is necessary for a given SWMU, the unit is closed and it no longer represents a threat to human health.

Radon. Radon is a naturally occurring odorless and colorless radioactive gas found in soils and rocks that can lead to the development of lung cancer. Radon tends to accumulate in enclosed

spaces, usually those that are below ground and poorly ventilated (e.g., basements). USEPA established a guidance radon level of 4 picocuries per liter (pCi/L) in indoor air for residences, and radon levels above this amount are considered a health risk to occupants.

3.9.2 Existing Conditions

Mountain Home AFB

Hazardous Materials, Hazardous Wastes, and Petroleum Products. Mountain Home AFB uses hazardous materials and petroleum products such as liquid fuels, aircraft deicer, pesticides, and solvents for everyday operations. The use of these hazardous materials and petroleum products results in the generation and storage of hazardous wastes and used petroleum products on the installation. Mountain Home AFB is an RCRA Large Quantity Generator with facility identification number ID3572124557 (MHAFB 2017e). RCRA Large Quantity Generators generate 1,000 kilograms per month or more of hazardous waste or more than 1 kilogram per month of acutely hazardous waste. Within the areas of the Proposed Action and alternatives, hazardous materials, hazardous wastes, and petroleum products are employed only at Building 1361 (Logistics Readiness Squadron) and Building 1365 (Aircraft Maintenance Unit) (MHAFB 2017d, MHAFB 2017e).

Mountain Home AFB has implemented an installation-specific Hazardous Waste Management Plan, which defines roles and responsibilities, addresses record keeping requirements, and provides spill contingency and response requirements (MHAFB 2017e). Mountain Home AFB also maintains an Integrated Contingency Plan, which identifies specific procedures and responsibilities for responding to a spill of oil or a hazardous substance (MHAFB 2017d).

Special Hazards. All of the facilities proposed for renovation under the Proposed Action and Alternative 1 are assumed to contain special hazards including ACMs, LBP, and PCBs. Limited ACMs and LBP sampling occurred at Buildings 1364 and 1365 to support the proposed renovations of these buildings. No ACMs or LBP were identified from these samples; however, the USAF still suspects ACMs, LBP, and PCBs might be present within these buildings based on their ages. Buildings 1315, 1335, and 1361 were not sampled for ACMs and LBP as part of this Proposed Action, and USAF suspects these buildings might contain ACMs, LBP, and PCBs based on their ages (366 CES/CEIE).

Environmental Contamination. The project areas for the Proposed Action and Alternative 1 do not contain any SWMUs. The nearest SWMUs to these areas include sites FT-06 (Fire Training Area 6), ST-22 (Underground Storage Tanks at Building 1333), SD-25 (Flightline Storm Drain), SD-27 (Wash Rack at Building 1354), and AOC-7 (Coal Storage Yard). SWMUs FT-06, ST-22, and AOC-7 are closed and require no further remedial action because environmental contamination was not identified at these SWMUs. SWMUs SD-25 and SD-27 are closed and require no further remedial action because contaminated sediment/soil removal actions were completed for both SWMUs (IDEQ 2015).

Radon. USEPA rates Elmore County, Idaho, as radon zone 1. Counties in zone 1 have a predicted average indoor radon screening level greater than 4 pCi/L (USEPA 2017d).

MHRC

Munitions-Related Wastes. Routine training with F-15s at the MHRC generates range residue. The munitions primarily used during such training includes defensive countermeasures (chaff and flares), strafing (20-mm) practice rounds, and guided and unguided munitions. Mountain Home AFB performs periodic clearing of range residue from MHRC, as needed, in accordance with the instructions outlined in AFI 13-212.

3.9.3 Environmental Consequences

Impacts on hazardous materials and wastes would be significant if a proposed action would result in noncompliance with applicable federal or state regulations, or increase the amounts generated or procured beyond current management procedures, permits, and capacities. Impacts on contaminated sites would be considered significant if a proposed action would disturb or create contaminated sites resulting in negative effects on human health or the environment, or if a proposed action would make it substantially more difficult or costly to remediate existing contaminated sites.

3.9.3.1 PROPOSED ACTION

Mountain Home AFB

Hazardous Materials, Hazardous Wastes, and Petroleum Products. Minor impacts would occur from the use of hazardous materials and petroleum products and the generation of hazardous wastes during the proposed facility construction and modifications. Hazardous materials that could be used include paints, welding gases, solvents, preservatives, and sealants. Additionally, hydraulic fluids and petroleum products, such as diesel and gasoline, would be used in the vehicles and equipment supporting facility construction. Construction would generate negligible quantities of hazardous wastes. Contractors would be responsible for the disposal of hazardous wastes in accordance with federal and state laws. All hazardous materials, petroleum products, and hazardous wastes used or generated during construction would be contained, stored, and managed appropriately (e.g., secondary containment, inspections, spill kits) in accordance with applicable regulations to minimize the potential for releases. Contractors could be required to develop and implement their own Spill Prevention Control and Countermeasure Plans. All construction equipment would be maintained according to the manufacturer's specifications and drip mats would be placed under parked equipment as needed. Hazardous materials, hazardous wastes, and petroleum products currently within Buildings 1361 and 1365 would be temporarily relocated to similar facilities to accommodate building renovation.

Minor impacts would occur from increases in hazardous materials and petroleum products use and hazardous wastes generation to support additional aircraft maintenance and operations. Additional quantities of hazardous materials, hazardous wastes, and petroleum products, most notably jet fuel, would be delivered, stored, used, and disposed of at Mountain Home AFB for operation and maintenance of the proposed aircraft. The quantities of hazardous materials, petroleum products, and hazardous wastes required for operation and maintenance of these proposed aircraft would be similar to those for the installation's existing F-15SG aircraft. New hazardous materials storage and hazardous waste collection points would be established as necessary and most likely would be sited in Buildings 1335, 1361, and 1365 based on anticipated building function. The Mountain Home AFB Hazardous Waste Management Plan

and Integrated Contingency Plan would be amended, as needed, for any new hazardous materials, hazardous waste, or petroleum product capabilities. These plans would continue to be followed to lessen the potential for a release and provide spill contingency and response requirements. Significant impacts from hazardous materials, hazardous wastes, or petroleum products are not expected.

Special Hazards. Minor impacts from special hazards might occur from the proposed renovations to Buildings 1335, 1361, 1364, and 1365. Each of these buildings might contain special hazards, including ACMs, LBP, and PCBs, which could be disturbed during renovation. Surveys for special hazards would be completed, as necessary, by a certified contractor prior to work activities to ensure that appropriate measures are taken to reduce potential exposure to, and release of, these special hazards. Contractors would wear appropriate PPE and would be required to adhere to all federal, state, and local regulations as well as the installation's management plans for these special hazards. All ACM- and LBP-contaminated debris would be disposed of at a USEPA-approved landfill. It is unlikely new building construction would include the use of these special hazards because federal policies and laws limit their use in building construction applications. The potential for future human exposure to special hazards and reducing the amount of ACMs, LBP, and PCBs to maintain at Mountain Home AFB would be a benefit of the Proposed Action. Significant impacts from special hazards are not expected.

Environmental Contamination. No impacts from existing environmental contamination would occur because no environmental contamination is known to occur within project area. No SWMUs coincide within the project area, and all nearby SWMUs are closed and require no further remedial action. While no environmental contamination has been documented within the project area if soil or groundwater that is believed to be contaminated was unexpectedly discovered, the construction contractor would be required to immediately stop work, report the discovery to USAF, and implement appropriate safety measures. Commencement of field activities would not continue in this area until the issue was investigated and resolved.

Radon. Minor impacts from radon are possible. Based on the USEPA ratings of radon zone 1 for Elmore County, it is possible the new and renovated facilities could have indoor radon screening levels greater than 4 pCi/L. Although basements and poorly ventilated areas are most commonly affected by radon, any indoor space in contact with the ground (i.e., first-floor of a slab building) is at risk. Radon would be managed in new construction by incorporating into the design passive features that limit the ability of radon to enter the building. These features could include placing aggregate material and matting below the concrete floor to encourage lateral, rather than vertical, flow of soil gas; designing the heating, ventilation, and air condition system to avoid depressurization of the first floor; and using air tight seals around pipes and wires where they protrude from below grade. Periodic radon testing would occur as needed in each new and renovated building. Post-construction radon management measures, such as installing ventilation systems to remove radon that has already entered the building, would be installed in buildings that test higher than 4 pCi/L. Therefore, significant impacts from radon are not expected.

MHRC

Munitions-Related Wastes. Minor impacts at MHRC would occur from the increased munitions use. The Proposed Action would increase the use of 20-mm practice rounds and chaff at MHRC

by approximately 8 and 19 percent, respectively. This increase in munitions use would increase the amount of range residue generated and removed from MHRC; however, because these munitions are inert, their potential to contaminate soil, surface water, and groundwater is limited. Mountain Home AFB would continue to perform periodic clearing of range residue in accordance with the instructions outlined in AFI 13-212. Therefore, significant impacts from munitions-related wastes are not expected.

3.9.3.2 ALTERNATIVE 1

Alternative 1 would have similar impacts on hazardous materials and wastes as the Proposed Action, as described in **Section 3.9.3.1**. Slightly greater adverse impacts would occur from the use of hazardous materials and petroleum products and the generation of hazardous wastes during the proposed facility construction and modifications because of the larger footprint of construction from the four munitions storage facilities and addition to Building 1315. The impacts from increases in hazardous materials and petroleum products use, hazardous wastes generation, and range residue production associated with the operation and maintenance of the six additional F-15SG would be identical to the Proposed Action. Similar impacts from special hazards would occur under Alternative 1 as the Proposed Action because the amounts of ACMs, LBP, and PCBs disturbed during construction and renovation would be similar. No impacts from existing environmental contamination would occur because no environmental contamination is known to occur within the footprint of the Alternative 1 project area. The potential for radon to be encountered at any new construction would be identical to the Proposed Action. Significant impacts on hazardous materials and wastes are not expected.

3.9.3.3 NO ACTION ALTERNATIVE

Impacts on hazardous materials and waste conditions would not be expected under the No Action Alternative. Quantities and types of hazardous materials and wastes would remain unchanged when compared with existing conditions.

4. Cumulative Impacts

The CEQ regulations for implementing NEPA require that the cumulative impacts of a proposed action be assessed (40 CFR §§ 1500–1508). A cumulative impact is defined as the following (40 CFR §1508.7):

> *The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.*

Cumulative impacts are most likely to arise when a relationship exists between a proposed action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with, or in proximity to, a proposed action would be expected to have more potential for a relationship than more geographically separated actions.

The CEQ's guidance for considering cumulative impacts states that NEPA documents "should compare the cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant." The first step in assessing cumulative impacts involves identifying and defining the scope of other actions and their interrelationship with a proposed action or alternatives. The scope must consider other projects that coincide with the location and timeline of a proposed action and other actions.

This cumulative effects analysis focuses on past, present, and reasonably foreseeable future projects related to the beddown of six additional F-15SGs at Mountain Home AFB, including building construction and renovation, an increase in installation personnel, an increase in aircraft operations, and an increase in inert munitions use at MHRC. For the purposes of this analysis, the temporal span of consideration is the period of construction beginning in 2018 through 5 years following the beddown.

4.1 Projects Considered for Potential Cumulative Impacts

This section provides decision makers with the cumulative effects of the Proposed Action at Mountain Home AFB by determining the incremental contribution of the Proposed Action together with past, present, and reasonably foreseeable future actions. **Sections 4.1.1** through **4.1.3** summarize past, present, and reasonably foreseeable future actions within the region that could interact with implementation of the Proposed Action at Mountain Home AFB. The sections briefly describe each action, present the proponent and the timeframe (e.g., past, present/ongoing, future) of the action, and indicate which actions have the potential to cumulatively interact with the Proposed Action.

4.1.1 Past Actions

Past activities are those actions that occurred within the geographic scope of cumulative effects that have shaped the current environmental conditions of the project area. No substantial projects have been completed within the recent past that warrant consideration regarding cumulative impacts. The majority of construction activities to establish airfield pavements,

interior roads, and installation infrastructure were completed approximately 70 years ago. The installation infrastructure has expanded since that time to accommodate changes in the installation's mission and fluctuations in population. Facility improvements and demolition actions continue, as needed to maintain space-use efficiency and optimized operations. Therefore, the impacts of past actions are now considered part of the existing environment and are incorporated in the description of the affected environment in **Section 3**.

4.1.2 Present and Reasonably Foreseeable Future Actions

4.1.2.1 ON-INSTALLATION PROJECTS

Changes in MHRC Range Operations. This project would upgrade existing ground-based operations, facilities, targets, and munitions to enhance integrated air and ground-based training within the range complex (MHAFB 2017f). These changes are intended to enable the installation to meet training requirements associated with air strike control missions, Survival Evasion Resistance Escape training, Joint Terminal Attack Controller training, Combined Arms Training missions, and Close Air Support missions. To enhance aircrew air-to-ground training, USAF proposed improvements and additions to facilities in the SCR, upgrade and addition of targets on JBR, changes in the envelope for ground-based operations in the MHRC, and increases to existing and addition of new munitions release activities. No new airspace would be established and no changes to existing airspace configurations would occur under the Proposed Action. An EA was completed for this project in May 2017, which concluded with a Finding of No Significant Impact in August 2017.

Sustainable Water Supply. The proposed project consists of establishing a new sustainable water supply conveyed via predominantly linear underground infrastructure to a proposed Water Treatment Facility that would be established within the installation boundary (Amec 2017). The project would install or develop a dedicated vertical turbine pump station and intake structure at the CJ Strike Reservoir; a pressurized conveyance feature (pipe) extending from the CJ Strike Reservoir to Mountain Home AFB, predominantly through land administered by BLM, although some smaller parcels of private (non-federal land) may be crossed by the system; a Water Treatment Facility with ancillary elements, including: 1) a 30-acre foot raw water reservoir; 2) water treatment processing equipment; 3) sludge drying beds; and 4) disinfection processing equipment; two-track roadways requiring temporary and permanent easements; and a connection to the existing water storage and distribution system within the installation. A revised Draft EA was prepared for this project, and was made available for public review in July 2017.

Adaptive Reuse of Building 291. As proposed, this project would renovate and repurpose Building 291 and the accompanying 103-acre area that comprises the former Alert Complex to support training operations for the 366 Civil Engineering Squadron for Readiness and Emergency Management Flight and the 366 FW (MHAFB 2016). Building 291 and the acreage surrounding it on the installation is a NRHP-eligible facility. Additionally, a portion of the Live Ordnance Loading Area is encompassed by the Alert Complex. The entire Alert Complex is also within QD arcs. The Draft EA, dated April 2016, noted that impacts from this project would be minor and that it would contribute negligibly to cumulative impacts on resources on the installation.

4.1.3 Off-Installation Projects

City of Mountain Home/Elmore County Water Pipeline. The City of Mountain Home and Elmore County have approached the Idaho Water Resource Board about developing a sustainable water supply for the area (SPW Water Engineering 2017). At this time, details of the County/City project are still being determined; however, it is possible that a pump station and pipeline could be routed through alignments parallel to those proposed in support of the Sustainable Water Supply project that would provide an alternative potable water supply for the installation. While the City of Mountain Home and Elmore County applied to the BLM for a right-of-way on April 28, 2017, the exact location and scope of their proposed water project remains unclear. A NEPA impact assessment will be required for this project, but is not yet under way.

4.2 Cumulative Effects Analysis

The following analysis in **Sections 4.2.1** through **4.2.9** examines the cumulative effects on the environment that would result from the incremental impacts of the Proposed Action, in addition to other past, present, and reasonably foreseeable future actions. This analysis assesses the potential for an overlap of impacts with respect to project schedules or affected areas. This section presents a qualitative analysis of the cumulative effects. There is a negligible difference in the impacts associated with the Proposed Action and Alternative 1. This difference would be indistinguishable and, therefore, the cumulative impacts would be expected to be similar.

4.2.1 Noise

Construction and air operations associated with implementing the Proposed Action or Alternative 1 in a concurrent timeframe with the other cumulative projects would result in short- and long-term, minor, cumulative, adverse impacts on Mountain Home AFB and surrounding communities. Additional construction actions associated with Alternative 1 would contribute slightly more to the short-term, cumulative, adverse noise impacts on the installation. Noise from operations associated with the Proposed Action and Alternative 1 would be indistinguishable from current conditions; however, long-term, minor, cumulative effects on the noise environment are possible because of incremental increases in aircraft noise in areas surrounding Mountain Home AFB, at the MHRC, and under existing MTRs, when considered collectively with changes in operations in the MHRC. Because flight programs would vary operating altitudes to reduce the potential for noise impacts on sensitive noise receptors, operational noise impacts would be minor. Although these operations may cumulatively result in a perceptible increase in the presence and operation of military aircraft in the local airspaces, no noise-producing activity or project has been identified that, when combined with the Proposed Action, would have greater than minor, adverse impacts on sensitive noise receptors in the environment.

4.2.2 Air Quality

The Proposed Action or Alternative 1 would contribute to minor, adverse, cumulative effects if implemented concurrently with the other identified cumulative projects. Cumulative short- and long-term effects would be expected from the increase in mobile source emissions during construction (e.g., commuter and construction vehicles and equipment), aircraft, and flight operations under the Proposed Action and other identified cumulative projects. By directly

inventorying all emissions in nonattainment regions and monitoring concentrations of criteria pollutants in attainment regions, Idaho takes into account the effects of all past and present emissions in their states. This is done by putting a regulatory structure in place designed to prevent air quality deterioration for attainment areas. This structure of rules and regulations is contained in the State Implementation Plan (SIP). SIPs are the regulations and other materials for meeting clean air standards and associated CAA requirements. SIPs include the following:

- state regulations that USEPA has approved
- state-issued, USEPA-approved orders requiring pollution control at individual companies
- planning documents such as area-specific compilations of emissions estimates and computer simulations (modeling analyses) demonstrating that regulatory limits ensure that the air will meet air quality standards.

The SIP process applies either specifically or indirectly to all activities in the region. No projects have been identified that, when combined with the Proposed Action, would threaten the region's attainment status; would have substantial GHG emissions; or would lead to a violation of any federal, state, or local air regulation. Therefore, short- and long-term cumulative effects would be minor.

4.2.3 Soils

If implemented concurrently, the Proposed Action or Alternative 1 and other cumulative projects involving construction actions (e.g., addition of targets on the firing ranges, potable water infrastructure) would result in temporarily disturbed ground surfaces and short-term, minor, adverse impacts on soils. Although soils would be disturbed by earthmoving and other construction activities, any effects would not be expected to exceed individual project boundaries and would not result in significant impacts on soil resources because BMPs, erosion and sediment controls, and other management actions would be implemented. Replanting with vegetation post-construction would minimize cumulative impacts on soils.

4.2.4 Cultural Resources

The Proposed Action would not affect cultural or historical resources, and would, therefore, not contribute to cumulative impacts on those resources.

4.2.5 Water Resources

Short-term, minor, cumulative adverse impacts on ground and surface water would be expected from implementation of the Proposed Action or Alternative 1 and other cumulative projects involving demolition and construction. Long-term, the impacts from the cumulative increase in impervious surfaces on the installation from the proposed development actions would be minor and adverse. Once installed, use of the sustainable water pipeline would have long-term, beneficial impacts on groundwater as the project would provide an alternative water source to the existing groundwater supply while further enabling cleanup actions, as appropriate, of the installation's existing groundwater and nitrate contamination. In accordance with federal and state stormwater regulations, the post-development hydrologic condition of the areas where the proposed F-15SG aircraft would be maintained, new facility construction, and renovation of an existing facility would occur must be restored to pre-development conditions. For these projects,

preservation of pre-development hydrologic condition would be ensured through adherence to and incorporation of BMPs and appropriate low impact development strategies that would be expected to lessen or eliminate potentially long-term, adverse impacts on water resources.

4.2.6 Socioeconomics

Construction, demolition, and renovation actions associated with concurrent implementation of the Proposed Action or Alternative 1 and the other identified cumulative projects would result in short-term, minor, beneficial effects on the local economy and local employment levels, lasting only for the duration of these activities. Cumulative socioeconomic impacts are not expected from the increase in personnel because there are no present or reasonably foreseeable future actions that include similar types of actions and corresponding effects.

4.2.7 Health and Safety

Short-term, negligible, cumulative adverse impacts on health and safety (e.g., slips, falls, heat exposure, exposure to mechanical, electrical, vision, or chemical hazards) would be expected as a result of demolition and construction activities associated with the concurrent implementation of the Proposed Action or Alternative 1 and the other cumulative projects. Employment of appropriate safety methods during these activities would be expected to minimize the potential for such impacts. Considered collectively, the Proposed Action or Alternative 1 and MHRC operations would increase air operations resulting in increased potential for bird and wildlife aircraft strikes. Cumulatively, these impacts would be long-term, minor, and adverse. However, such events would be minimized by air operational adherence to existing BASH protocols. Cumulative long-term, minor, beneficial impacts on health and safety would be expected from upgrades associated with construction of modern facilities to support the F-15SG programs and from improvements to the potable water supply associated with the Sustainable Water Supply projects for both the installation and the City of Mountain Home/Elmore County.

4.2.8 Biological Resources

Long-term, minor, adverse cumulative impacts on vegetation resources would result from construction for the Proposed Action or Alternative 1, expansion of facilities and addition of targets to support operational changes in the MHRC, and construction and installation of pipelines to implement the sustainable water supply for the installation. Short- and long-term, minor, direct, adverse cumulative impacts would be expected to result from noise during demolition and construction activities. Long-term, minor, cumulative adverse impacts on wildlife could occur from the mortality of small, less-mobile terrestrial species (e.g., reptiles and small mammals) as a result of collision with construction equipment associated with construction and demolition activities as part of the Proposed Action or Alternative 1 and other cumulative projects involving development. Additionally, the increase in aircraft and operations associated with the Proposed Action and expansion of the flight training envelope in the MHRC would be expected to increase the potential for on-ground and in-air collisions with wildlife such as deer and birds. To minimize this potential for impacts, airfield and flight operations would be conducted in accordance with the existing BASH plan.

4.2.9 Hazardous Materials and Wastes

Planned and foreseeable cumulative construction, renovation, and demolition activities within Mountain Home AFB would result in short-term cumulative increases in the volume of hazardous wastes generated at the installation. The increase in air operations associated with the Proposed Action or Alternative 1 and expansion of training operations in the MHRC could increase the potential for minor spills and releases. Operations and maintenance teams would implement BMPs to reduce the potential for spills and ensure quick clean ups. Hazardous materials and wastes would be handled, stored, and disposed of in accordance with applicable regulations and approved plans. USAF regulations require construction contractors to recycle materials to the maximum extent possible to reduce the amount of debris disposed of at off-installation landfills. Debris from development activities on Mountain Home AFB that could not be recycled would go to area landfills; however, landfill capacity is available. Additionally, the amount of range residue generated and removed from MHRC would increase under the Proposed Action, Alternative 1, and actions associated with the changes in MHRC range operations. However, Mountain Home AFB would continue to perform periodic clearing of range residue in accordance with the instructions outlined in AFI 13-212. Therefore, no significant cumulative adverse impacts on waste management, hazardous waste storage, or handling would be anticipated.

4.3 Unavoidable Adverse Impacts

Unavoidable adverse impacts would result from implementation of the Proposed Action or Alternative 1. Adverse impacts on soils, stormwater management, vegetation, wildlife, air quality, and the noise environment would be unavoidable during construction activities but not significant.

4.4 Compatibility of Proposed Action with the Objectives of Federal, Regional, State, and Local Land Use Plans, Policies, and Controls

The Proposed Action or Alternative 1 would occur on government-owned lands and airspace within which USAF currently operates. The nature of activities for the Proposed Action or Alternative 1 would not differ from current USAF use of these areas. USAF would continue to follow all requirements related to F-15SG operation and maintenance and would therefore be consistent with current federal, regional, state, and local land use policies and controls.

4.5 Relationship between Short-Term Uses of the Human Environment and Maintenance and Enhancement of Long-Term Productivity

Short-term uses of the biophysical components of the human environment include direct, project-related disturbances and direct impacts associated with an increase of population and activity that occurs over a period of less than 5 years. Long-term uses of the human environment include those impacts occurring over a period of more than 5 years, including permanent resource loss.

Implementation of the Proposed Action or Alternative 1 would not require short-term resource uses that would result in long-term compromises of productivity. Under the Proposed Action or Alternative 1, short-term uses of the environment would result in noise and air emissions from construction actions. Long-term impacts are not expected because of the interim nature of the construction. Noise and air emissions generated during flight operations training would not be expected to result in long-term, adverse impacts on noise-sensitive receptors or wildlife. The nature of activities for the Proposed Action would not differ from current uses of these areas.

Therefore, implementation of the Proposed Action or Alternative 1 would not result in significant impacts on sensitive resources. As a result, it is not anticipated that the Proposed Action or Alternative 1 would result in any environmental impacts that would permanently narrow the range of beneficial uses of the environment or pose long-term risks to health, safety, or the general welfare of the public.

The nature of activities for the Proposed Action and Alternative 1 would not differ from current uses of these areas.

4.6 Irreversible and Irretrievable Commitment of Resources

NEPA CEQ regulations require environmental analyses to identify "…any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented" (40 CFR § 1502.16). Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects the uses of these resources would have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced within a reasonable timeframe. Building construction material, such as gravel and fuel usage for construction equipment, would constitute the consumption of non-renewable resources. Irretrievable resource commitments also involve the loss in value of an affected resource that cannot be restored because of the action.

Most resource commitments associated with the Proposed Action or Alternative 1 would be neither irreversible nor irretrievable. Most impacts associated with the Proposed Action would be short-term and temporary (e.g., air emissions from construction), or longer lasting but negligible (e.g., increase in potable water demand and benefits from implementing green infrastructure). Those limited resources that could involve a possible irreversible or irretrievable commitment would be used in a beneficial manner.

Construction and renovation of installation facilities and infrastructure would require the consumption of limited amounts of material typically associated with interior renovations (wiring, insulation, windows, and drywall) and exterior construction (concrete, steel, sand, mortar, brick, and asphalt). An undetermined amount of energy to conduct construction, renovation, and operation of these facilities would be expended and irreversibly lost, but energy would be used in an efficient and sustainable manner throughout the useful life cycle of the facilities.

Training operations would continue to involve the consumption of nonrenewable resources such as gasoline used in vehicles and jet fuel used in the F-15SG aircraft. None of these activities is expected to significantly decrease the availability of mineral or petroleum resources; however, this use of fuel would be irreversible. No other irreversible or irretrievable commitment of resources would be expected.

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5. List of Preparers

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M.S. Environmental and Natural Resources Law and Policy
B.A. Journalism
Years of Experience: 4

Deborah Peer
M.S. Environmental Science and Management
B.S. Zoology
B.S. Wildlife Science
Years of Experience: 16

Kathryn Plimpton
M.S. Historic Preservation
B.A. Archaeology
Years of Experience: 18

Steve Pyle
J.D.
B.S. Natural Resources Management
Years of Experience: 17

Morgan Shelby
B.S. Environmental Science
Years of Experience: 2

Patrick Solomon
M.S. Geography
B.A. Geography
Years of Experience: 23

Emily Smith
M.S. Natural Resources Law Studies
B.A. Biology
Years of Experience: 11

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6. References

366 CES/ CEIE 2017 — 366 CES/CEIE. 2017. Email regarding lead-based paint and asbestos-containing material. Subject: "RE: Background data request for RSAF and URBAN CAS EAs." September 20, 2017.

ACC 2013 — Air Combat Command (ACC). 2013. Final United States Air Force F-35A Operational Basing Environmental Impact Statement. September 2013.

Amec 2017 — Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec). 2017. Revised Draft Environmental Assessment Establishment of a Sustainable Water Supply for Mountain Home Air Force Base, Mountain Home, Idaho. July 2017.

ANSI 2013 — American National Standard Institute (ANSI). 2013. American National Standard Quantities and Procedures for Description and Measurement of Environmental Sound. Part 3: Short-term measurements with an observer present. ANSI S12.9-1993 (R2013)/Part 3.

CH2M Hill 2007 — CH2M Hill. 2007. Mountain Home Air Force Base Wetland Delineation and Request for Jurisdictional Determination. December 2007.

CH2M Hill 2015 — CH2M Hill. 2015. U.S. Air Force Stormwater Pollution Prevention Plan. Final Report. CH2M Hill, Boise, Idaho. October 2015.

DoD 2016 — Department of Defense (DoD). 2016. Strategic Sustainability Performance Plan FY 2016. Available online: <https://energy.gov/sites/prod/files/2017/04/f34/doe_2016_sspp_revision.pdf >. Accessed June 2017.

FICUN 1980 — Federal Interagency Committee on Urban Noise (FICUN). 1980. Guidelines for Considering Noise in Land-Use Planning and Control.

FHWA 2006 — Federal Highway Administration (FHWA). 2006. Construction Noise Handbook. FHWA-HEP-06-015. DOT-VNTSC-FHWA-06-02. NTIS No. PB2006-109102. August 2006.

Idcide 2017 — Idcide. 2017. Weather and Climate for Mountain Home AFB. Available online: <*http://www.idcide.com/weather/id/mountain-home-afb.htm*>. Accessed June 2017.

IDEQ 2015 — Idaho Department of Environmental Quality (IDEQ). 2015. *Attachments to the HWMA Post-closure and Corrective Action Permit for the Mountain Home Air Force Base. EPA ID No. ID3572124557.* Effective January 11, 2015.

MHAFB 2007 Mountain Home Air Force Base (MHAFB). 2007. Final Environmental Assessment for Republic of Singapore Air Force F-15SG Beddown, Mountain Home AFB. March 2007.

MHAFB 2011a MHAFB. 2011. Final Environmental Assessment Addressing the Privatization of Military Family Housing at Mountain Home Air Force Base, Idaho. October 2011.

MHAFB 2011b MHAFB. 2011. Final Draft Integrated Cultural Resources Management Plan (ICRMP). November 29, 2011.

MHAFB 2012 MHAFB. 2012. Final Integrated Natural Resources Management Plan for Mountain Home Air Force Base, Small Arms Range, Saylor Creek Air Force Range, Juniper Butte Range, and other Mountain Home Range Complex Sites. June 2012.

MHAFB 2015 MHAFB. 2015. Economic Impact Statement Fiscal Year 2015.

MHAFB 2016 MHAFB. 2016. Draft Environmental Assessment for Adaptive Reuse Potential of Building 291 at Mountain Home Air Force Base. April 2016.

MHAFB 2017a MHAFB. 2017. Programmatic Agreement Regarding the Management of Historic Properties between the Idaho State Historic Preservation Office, the Advisory Council on Historic Preservation, and the United States Air Force. January 3, 2017.

MHAFB 2017b MHAFB. 2017. Historic Building Inventory and Historic District Re-evaluation.

MHAFB 2017c MHAFB. 2017. 366th Operations Group Mission. Available online: <*http://www.mountainhome.af.mil/About/366th-Operations-Group/*>. Accessed 31 July 2017.

MHAFB 2017d MHAFB. 2017. Integrated Contingency Plan (ICP) for Oil Spill Prevention and Emergency Response. January 2017.

MHAFB 2017e MHAFB. 2017. U.S. Air Force Hazardous Waste Management Plan. 1 June 2017.

MHAFB 2017f MHAFB. 2017. Final Environmental Assessment for Operational Changes and Range Improvements in the Mountain Home Range Complex. May 2017.

Mountain Home School District 2015 Mountain Home School District 193 (Mountain Home School District). 2015. "Schools." Available online: <*http://www.mtnhomesd.org/*>. Accessed October 17, 2017.

NRCS 2017a Natural Resources Conservation Service (NRCS). 2017. Custom Soil Resource Report for Elmore County Area, Idaho, Parts of Elmore and Owyhee Counties. Generated September 28, 2017.

NRCS 2017b — NRCS. 2017. Farmland Protection Policy Act. Available online: <*https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa*>. Accessed October 5, 2017.

Public School Review 2017 — Public School Review. 2017. “Elmore County Public Schools.” Available online: <*https://www.publicschoolreview.com/idaho/elmore-county*>. Accessed October 13, 2017.

SPW Water Engineering 2017 — SPF Water Engineering. 2017. Elmore County Water Supply Alternatives. February 28, 2017. Available online: <*https://www.idwr.idaho.gov/files/iwrb/2017/20170228-Elmore-County-Water-Supply-Report.pdf*>. Retrieved October 16, 2017.

USAF 1997 — U.S. Air Force (USAF). 1997. Environmental Effects of Self-Protection Chaff and Flares. Final Report. August 1997.

USAF 2001 — USAF. 2001. Initial F-22 Operational Wing Beddown Environmental Impact Statement. April 2001.

USAF 2007 — USAF. 2007. SELCalc2 Aircraft Noise Model, Version 1.0.3.

USAF 2013 — USAF. 2013. NOISEMAP Aircraft Noise Model, Version 7.3.

USAF 2014a — USAF. 2014. Final Environmental Impact Statement KC-46A Formal Training Unit (FTU) and First Main Operating Base (MOB 1) Beddown.

USAF 2014b — USAF. 2014. Final Environmental Impact Statement Second Main Operating Base (MOB 2) KC-46A Beddown at Alternative Air National Guard Installations.

USAF 2015a — USAF. 2015. Air Force Instruction 32-7063: Air Installation Compatible Use Zone (AICUZ) Program.

USAF 2015b — USAF. 2015. Air Conformity Applicability Model (ACAM). Version 5.0.7. May 29, 2015.

USAF 2016 — USAF. 2016. Environmental Assessment for Operational Changes and Range Improvements in the Mountain Home Range Complex. June 2016. Available online: <*http://www.mountainhome.af.mil/Portals/102/Documents/MHRC%20Draft%20EA.pdf?ver=2016-05-31-170819-700*>. Accessed June 2017.

USAF 2017 — USAF. 2017. Air Installation Compatible Use Zones for Mountain Home AFB.

USCB 2001 — U.S. Census Bureau (USCB). 2001. American Fact Finder Table DP-1 – Profile of General Population and Housing Characteristics: 2000. Available online: <*https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml*>. Accessed October 16, 2017.

USCB 2010 USCB. 2010. Urban Cluster Reference Map; Mountain Home AFB, ID. 2010. Available online: https://www2.census.gov/geo/maps/dc10map/UAUC_RefMap/uc/uc59734_mountain_home_afb_id/DC10UC59734.pdf

USCB 2011 USCB. 2011. American Fact Finder Table DP-1 – Profile of General Population and Housing Characteristics: 2010. Available online: <*https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml*>. Accessed October 9, 2017.

USCB 2016a USCB. 2016. American Fact Finder Table DP05 – ACS Demographic and Housing Estimates 2011-2015 American Community Survey 5-Year Estimates. Available online: <*https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml*>. Accessed October 9, 2017.

USCB 2016b USCB. 2016. American Fact Finder Table DP03 – Selected Economic Characteristics 2011-2015 American Community Survey 5-Year Estimates. Available online: <*https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml*>. Accessed October 13, 2017.

USCB 2016c USCB. 2016. American Fact Finder Table DP04 – Selected Housing Characteristics 2011-2015 American Community Survey 5-Year Estimates. Available online: <*https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml*>. Accessed October 13, 2017.

U.S. Climate Data 2017 U.S. Climate Data. 2017. Mountain Home Climate Statistics (Averaged from 1981-2010 normals). Available online: <*https://www.usclimatedata.com/climate/mountain-home/idaho/united-states/usid0171*>. Retrieved October 4, 2017.

USEIA 2016 U.S. Energy Information Administration (USEIA). 2016. State Carbon Dioxide Emissions, November 3, 2016. Available online: <*https://www.eia.gov/environment/emissions/state/*>. Accessed June 2017.

USEPA 1971 U.S. Environmental Protection Agency (USEPA). 1971. Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances. Washington, DC: s.n., Publication NTID300.1.

USEPA 2009 USEPA. 2009. Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act. Available online: <*https://www.epa.gov/sites/production/files/2015-09/documents/eisa-438.pdf*>. Retrieved October 13, 2017.

USEPA 2017a USEPA. 2017. Attainment Status. Available online: <*https://www3.epa.gov/airquality/greenbook/anayo_id.html*>. Accessed June 2017.

USEPA 2017b USEPA. 2017. AirData Web Site. Available online: <*https://www.epa.gov/outdoor-air-quality-data/monitor-values-report*>. Accessed June 2017.

USEPA 2017d USEPA. 2017. “Table Version of EPA Radon Zones by County (Excel)”. Available online: <*https://www.epa.gov/sites/production/files/2015-07/radonzones-table.xlsx*>. Downloaded January 11, 2017.

USFWS 2016 U.S. Fish and Wildlife Service (USFWS). 2016. ECOS Species Profile: Slickspot peppergrass (Lepidium papilliferum), Re-listed as Threatened 2016. Available online: <*https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=Q34X*>. Retrieved October 4, 2017.

USFWS 2017 USFWS. 2017. IPaC Resource List for Mountain Home AFB, Idaho. Available online: <*https://ecos.fws.gov/ipac/location/4A3EUSS3MFFS5IFEGOZ7BAHQYY/resources*>. Retrieved October 10, 2017.

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A

Public and Stakeholder Coordination List

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Appendix A: Public and Stakeholder Coordination List

Federal Political Representatives

Idaho Senators

Idaho Representative, 2nd District

State Agency Contacts

Idaho State Historic Preservation Office

Special Assistant for Military Affairs

State Political Representatives

Governor of Idaho

Idaho House of Representatives, District 23

Idaho Senate, District 23

Local Agencies and Officials

Elmore County Commission

Mountain Home Chamber of Commerce

Mountain Home City Council

Mayor of Mountain Home

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

Libraries

Mountain Home AFB Library

Mountain Home Public Library

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B

Government to Government Coordination and Section 106 Consultation Materials

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

25 OCT 2017

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue Ste 331
Mountain Home AFB ID 83648

Mr. Nathan Small
Chairman
Shoshone Bannock Tribes
P.O. Box 306
Fort Hall ID 83203

Dear Chairman Small

The United States Air Force (USAF) and the 366th Fighter Wing (366 FW) have initiated development of an Environmental Assessment (EA) to evaluate the proposed beddown of additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho. The purpose of this letter is to respectfully invite your participation in a government-to-government capacity in the evaluation and preparation of an EA.

The EA will address and evaluate USAF's proposed increase in the number of permanently assigned RSAF F-15SG aircraft at Mountain Home AFB from 14 to 20, for a total of 62 aircraft on base. The proposed beddown of additional aircraft is being conducted in accordance with a Letter of Request submitted by the Singapore Ministry of Defense and RSAF and will continue building the USAF relationship and interoperability with the Singapore armed forces. The RSAF squadron would continue to operate as a separate fighter squadron under the operational control of the 366 FW and there would be no change in the mission for the base.

The proposed project would include increases in the number of airframes, support personnel, aircraft operations, and two types of inert munitions expenditures. It would also include construction and renovation of supporting facilities on the base. Construction and renovation to support the beddown would occur from 2018 through 2020 and the increase in airframes, personnel, aircraft operations, and munitions use would begin in 2019. All aircraft operations would take place within existing military training routes and airspace, and additions to or alterations of airspace are not proposed. Additionally, all munitions expenditures would take place within existing military range training areas currently authorized for munitions use, and changes or additions to the range areas are not proposed.

Pursuant to Executive Order 13175, *Consultation and Coordination With Indian Tribal Governments,* we are providing you with the attached Description of the Proposed Action and Alternatives. Your review and comments on the attached materials will help us develop the scope of our environmental review, which is being conducted in accordance with the National Environmental Policy Act and its implementing regulations. USAF anticipates publishing the Draft EA this winter and the Final EA in Spring 2018.

We look forward to your participation in this process and would appreciate very much receiving any questions or comments regarding the attached materials, if possible, within 30 days from receiving this correspondence. Do not hesitate to call me at (208)828-2366 to arrange dates and times to discuss at your convenience.

Sincerely

JOSEPH D. KUNKEL, Colonel, USAF

Attachment:
Description of the Proposed Action and Alternatives for U.S. Air Force Beddown of Additional Republic of Singapore Air Force F-15SGs at Mountain Home Air Force Base, Idaho, September 2017

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

25 OCT 2017

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue Ste 331
Mountain Home AFB ID 83648

Mr. Shane Warner
Chairman
Northwestern Band of the Shoshone Nation
Brigham City Tribal Office
707 N Main St
Brigham City UT 84302

Dear Chairman Warner

The United States Air Force (USAF) and the 366th Fighter Wing (366 FW) have initiated development of an Environmental Assessment (EA) to evaluate the proposed beddown of additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho. The purpose of this letter is to respectfully invite your participation in a government-to-government capacity in the evaluation and preparation of an EA.

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

25 OCT 2017

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue Ste 331
Mountain Home AFB ID 83648

Mr. Joe DeLaRosa
Chairman
Burns Paiute Tribe
100 Pasigo St
Burns OR 97720

Dear Chairman DeLaRosa

The United States Air Force (USAF) and the 366th Fighter Wing (366 FW) have initiated development of an Environmental Assessment (EA) to evaluate the proposed beddown of additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho. The purpose of this letter is to respectfully invite your participation in a government-to-government capacity in the evaluation and preparation of an EA.

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

25 OCT 2017

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue Ste 331
Mountain Home AFB ID 83648

Mr. Bradley Crutcher
Chairman
Paiute-Shoshone Tribes of Fort McDermitt
P.O. Box 457
McDermitt NV 89421

Dear Chairman Crutcher

The United States Air Force (USAF) and the 366th Fighter Wing (366 FW) have initiated development of an Environmental Assessment (EA) to evaluate the proposed beddown of additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho. The purpose of this letter is to respectfully invite your participation in a government-to-government capacity in the evaluation and preparation of an EA.

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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

25 OCT 2017

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue Ste 331
Mountain Home AFB ID 83648

Mr. Theodore Howard
Chairman
Shoshone-Paiute Tribes of Duck Valley Indian Reservation
P.O. Box 219
Owyhee NV 89832

Dear Chairman Howard

The United States Air Force (USAF) and the 366th Fighter Wing (366 FW) have initiated development of an Environmental Assessment (EA) to evaluate the proposed beddown of additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho. The purpose of this letter is to respectfully invite your participation in a government-to-government capacity in the evaluation and preparation of an EA.

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Sincerely

JOSEPH D. KUNKEL, Colonel, USAF

Attachment:
Description of the Proposed Action and Alternatives for U.S. Air Force Beddown of Additional Republic of Singapore Air Force F-15SGs at Mountain Home Air Force Base, Idaho, September 2017

DEPARTMENT OF THE AIR FORCE
366TH CIVIL ENGINEER SQUADRON (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

18 January 2018

Sheri L. Robertson
Chief, Environmental Management
1030 Liberator Street
Mountain Home AFB ID 83648

Mr. Matt Halitsky
Historic Preservation Review Officer
Idaho State Historic Preservation Office
210 Main Street
Boise ID 83702

SUBJECT: Section 106 Consultation for the Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base, Idaho

Dear Mr. Halitsky,

Mountain Home AFB (MHAFB) is propsing to increase the number of permanently assigned Republic of Singapore (RSAF) F-15SG aircraft at Mountain Home AFB from 14 to 20 (undertaking) on the installation. The RSAF squadron would continue to operate as a separate fighter squadron under the operational control of the 366 FW and there would be no change in mission. In a separate communication, the U.S. Air Force provided you with a copy of the Draft Environmental Assessment (EA) for this action, prepared in compliance with the National Environmental Policy Act (NEPA). The undertaking would include construction and renovation of support facilities; and increases in personnel, aircraft operations, and two types of inert munitions use defined as the Proposed Action and Alternative 1 in the EA. Because the undertaking also includes increased use of established airspace outside of MHAFB landholdings and jurisdiction of the Programmatic Agreement (PA) for alternative compliance with 36 CFR 800, the 366th FW is initating Section 106 consultation. MHAFB respectfully requests consolidation of steps 36 CFR 800.4 - 800.5 and concurrence with the recommendation of National Register of Historic Places (NRHP) ineligibility for Building 1361 and the determination of *No Adverse Effect* for the undertaking in accordance with 36 CFR 800.5(b).

The undertaking includes construction of a 10,000-square foot addition to the west elevation of Building 1364, a 14,000-square foot addition to the west elevation of Building 1365, a 45,000-square foot addition to the Aerospace Ground Equipment (AGE) storage yard, interior renovations to Building 1335 and 1361, and construction of new facilities for engine storage and an aviation sunshade. Seven temporary trailers would be installed for use as office space during facility modifications and would be removed following construction. Repairs and refurbishment of existing munitions storage facilities approximately 0.5 mile north of the flight line are also included. Under Alternative 1, Mountain Home AFB would conduct all activities described under the Proposed Action except that a 4,500-square foot addition to the west elevation of Building 1315 would be constructed rather than renovating Building 1361. Alternative 1 would also include construction of four munitions storage facilities approximately 0.5 mile north of the flight line.

MHAFB defined the undertaking Area of Potential Effect (APE) in accordance with 36 CFR 800.16(d). APE 1 includes the construction footprint (Proposed Action and Alternative 1) on the installation while APE 2 is the airspace that extends outside of installation landholdings (see Attachments 1 and 2).

All MHAFB landholdings have been inventoried for archaeological resources. All construction related ground-disturbing activities within APE 1 would occur in previously disturbed areas devoid of surface archaeological resources and with low potential for inadvertent discovery. APE 1 includes fourteen buildings (See Table 1).

Table 1. Buildings in APE 1

	Building	Type	Construction Date	Proposed
1.	1315	Warehouse	2009	4500 ft. addition under alternative 1
2.	1327	Warehouse	1983	None
3.	1329	NRHP-eligible hangar	1955	None
4.	1330	NRHP-eligible hangar	1955	None
5.	1331	NRHP-eligible hangar	1955	None
6.	1332	NRHP-eligible hangar	1955	None
7.	1333	NRHP-eligible hangar	1955	None
8.	1335	Shop	1970	Inteior renovations under proposed action
9.	1339	Jet Engine Maintenance	1995	None
10.	1346	Storage/Maintenance	2012	None
11.	1361	Warehouse	1965	Interior renovations under proposed action. No changes under alternative 1.
12.	1363	Squad Ops	1971	None
13.	1364	428th Squad Ops	1971	10,000 sq. ft. addition to west elevation under proposed action
14.	1365	Shop	1984	15,000 sq. ft. addition to west elevation under proposed action

Buildings 1329, 1330, 1331, 1332, and 1333 are part of an NRHP-eligible Cold War-era nose dock hangar historic district and are within view of the additions proposed to Buildings 1364 and 1365, the AGE storage yard, and new construction of engine storage buildings. The nose dock hangars historic district would not be adversely affected by the Proposed Action or Alternative 1 because all construction would occur in the context of the industrial area of an active AFB where infrastructure changes and these types of resources are common. The AGE addition could include an extension of fencing and installation of removable metal canopies. The additions and newly constructed engine storage buildings would be one story and designed in keeping with existing facilities. In addition, the character-defining features of the historic buildings within the district (i.e., the engineering design elements) nor the integrity of the resources would be impacted by the new construction.

Bldg. 1361, constructed in 1965, was evaluated for NRHP-eligibility by the MHAFB CES/CEIE Cultural Resources Manager (CRM) due to meeting the 50 year age criterion. The 21,000 sq. ft. utilitarian building was constructed as an aircraft weapons calibration center (weapons maintenance) facility and transitioned to aircraft components warehouse under Tactical Air Command (TAC) and Air Combat Command (ACC). An exterior 1.500 sq. ft. vault addition was constructed in 2009. MHAFB consulted with SHPO regarding this addition and received concurrence on a *No Historic Properties* determination (see attachment 3). In applying the criteria for significance, under Criterion A, building 1361 does not rise to a level of historic importance as it was constructed as a routine weapons maintenance facility and eventual aircraft parts storage warehouse in an industrial portion of the base, adjacent to the flight line (see attachments 4 and 5). MHAFB has been evaluated for Cold War significance in conjunction with ACC bases throughout the country with important MHAFB missions focused on Strategic Air Command (SAC) bombardement presence and transfer and storage of special weapons as represented in historic properties such as the Cold War Alert Facility, the Nose Docks Hangars Historic District, and the Special Weapons Storage Historic District. Under Criterion B, there are no important historical figures associated with the construction or use of the building that might make the resource NRHP-eligible. Rather, building use has transitioned multiple times to meet routine aircraft maintenance and mission scheduling requirements. Under Criterion C, this is a standard USACE warehouse building that does not represent the work of a master nor does it incorporate unique engineering techniques or materials. Therefore, the building is recommended as not eligible for listing in the NHRP.

Increased aircraft operations within APE 2 established airspace and approved inert munitions use within defined target areas on MHAFB ranges would be indistinguishable from current conditions and well within established noise thresholds. Aircraft operations would not add to or alter airspace or training locations and all munitions expenditures would take place within existing military range training areas currently authorized for munitions use. Therefore, changes in number of aircraft operations and munitions would not adversely affect historic properties in APE 2.

Mountain Home AFB is also conducting Section 106 and government-to-government consultation in accordance with the NHPA and Executive Order 13175, *Consultation and Coordination with Indian Tribal Governments*. On October 27, 2017, the United States Air Force (USAF) initiated government-to-government consultation with Shoshone-Paiute Tribes of Duck Valley Indian Reservation, Shoshone Bannock Tribes, Paiute-Shoshone Tribes of Fort McDermitt, Burns Paiute Tribe, and Northwestern Band of the Shoshone Nation; this consultation is ongoing. Section 106 consultation with these same tribes is being initiated concurrently with this notification.

Pursuant to 36 CFR § 800.5(b), the 366th FW at MHAFB respectfully requests concurrence with the recommendation ineligibility for listing in the NRHP for Building 1361 and the determination of *No Adverse Effect* for undertaking within 30 days from receipt of this correspondence. If you have any questions or comments, please contact Ms. Noelle Shaver at noelle.shaver@us.af.mil or or by postal mail at: Ms. Noelle Shaver, 366 CES/CEIE, 1030 Liberator, Mountain Home, ID 83648.

Sincerely,

SHERI L. ROBERTSON
Chief, Environmental Management

Attachments: 1. APE 1 Map
2. APE 2 Map 366FW Airspace
3. 2009 SHPO Concurrence
4. Bldg. 1361 ISHI forms
5. Photos

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

29 JAN 2018

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue Ste, 331
Mountain Home AFB ID 83648

Mr. Bradley Crutcher
Chairman
Paiute-Shoshone Tribes of Fort McDermitt
P.O. Box 457
McDermitt NV 89421

Dear Chairman Crutcher

The purpose of this letter is twofold: to give you an opportunity to review and comment on a proposed action in which the Paiute-Shoshone Tribes of Fort McDermitt may have an interest; and to invite you to participate in Section 106 consultation for the Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho, as required under the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR § 800. An invitation to participate in government-to-government consultation for this action was previously sent to you on October 27, 2017. In separate communication, the U.S. Air Force has also provided you with a copy of the Draft Environmental Assessment (EA) for this action, prepared in compliance with the National Environmental Policy Act (NEPA).

As described in the Description of the Proposed Action and Alternatives (DOPAA) provided to you in our October 27, 2017 letter, the undertaking consists of the USAF proposal to increase the number of permanently assigned RSAF F-15SG aircraft at Mountain Home AFB from 14 to 20, for a total of 62 F-15E and F-15SG aircraft housed on base to train within established airspace. The undertaking would also include construction and renovation of support facilities; and increases in personnel, aircraft operations, and two types of inert munitions use.

Specifically, the undertaking would include a 10,000-square foot addition to the west elevation of Building 1364, a 14,000-square foot addition to the west elevation of Building 1365, a 45,000-square foot addition to the Aerospace Ground Equipment (AGE) storage yard, renovations to Building 1335 and 1361, and construction of new facilities for engine storage and an aviation sunshade. Seven temporary trailers would be installed for use as office space during facility modifications and would be removed following construction. Repairs and refurbishment of existing munitions storage facilities approximately 0.5 mile north of the flight line are also included. Under Alternative 1, Mountain Home AFB would conduct all activities described under the Proposed Action except that a 4,500-square foot addition to the west elevation of Building 1315 would be constructed rather than renovating Building 1361. Alternative 1 would also include construction of four munitions storage facilities approximately 0.5 mile north of the flight line (see Attachments 1 and 2). The RSAF squadron would continue to operate as a separate fighter squadron under the operational control of the 366 FW and there would be no change in the mission for the installation.

We had previously attached a copy of the DOPAA for your review. Pursuant to Section 106 of the NHPA, implementing regulations at 36 CFR Part 800, and Department of Defense Instruction 4710.02 section 6, DoD Interactions with Federally-Recognized Tribes, we request government-to-government consultation on this Proposed Action. In particular, we invite you, pursuant to 36 CFR Section 800.4(a)(4), to provide information on any properties of historic, religious, or cultural significance that may be affected by our proposed undertaking. Regardless of whether the Tribe(s) chooses to consult on this project, the U.S. Air Force will comply with the Native American Graves Protection and Repatriation Act by informing you of any inadvertent discovery of archaeological or human remains and consulting on their disposition.

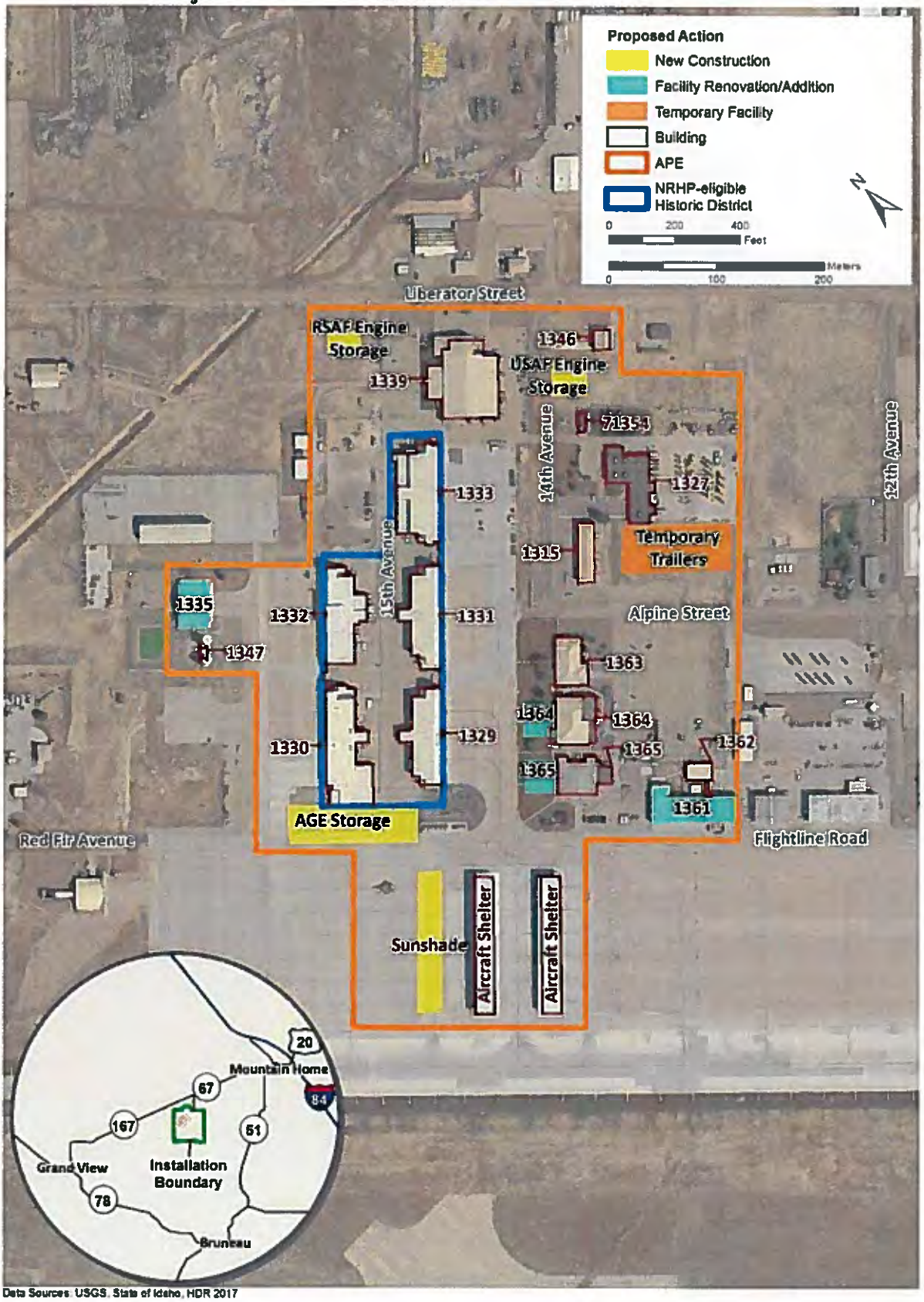
We look forward to your participation in this process and would appreciate receiving questions or comments within 30 days from receiving this correspondence. For matters related to government-to-government consultation, you may contact me directly at (208) 828-2366. If you have any questions or comments, please contact the Installation Tribal Liasons Officer, Ms. Barbara Hurt, at Barbara.hurt@us.af.mil, by phone at (208) 728-4536, or by postal mail at: Barbara Hurt, 366 Gunfighter Avenue, Ste. 331, Mountain Home, ID 83648.

Respectfully

JOSEPH D. KUNKEL, Colonel, USAF

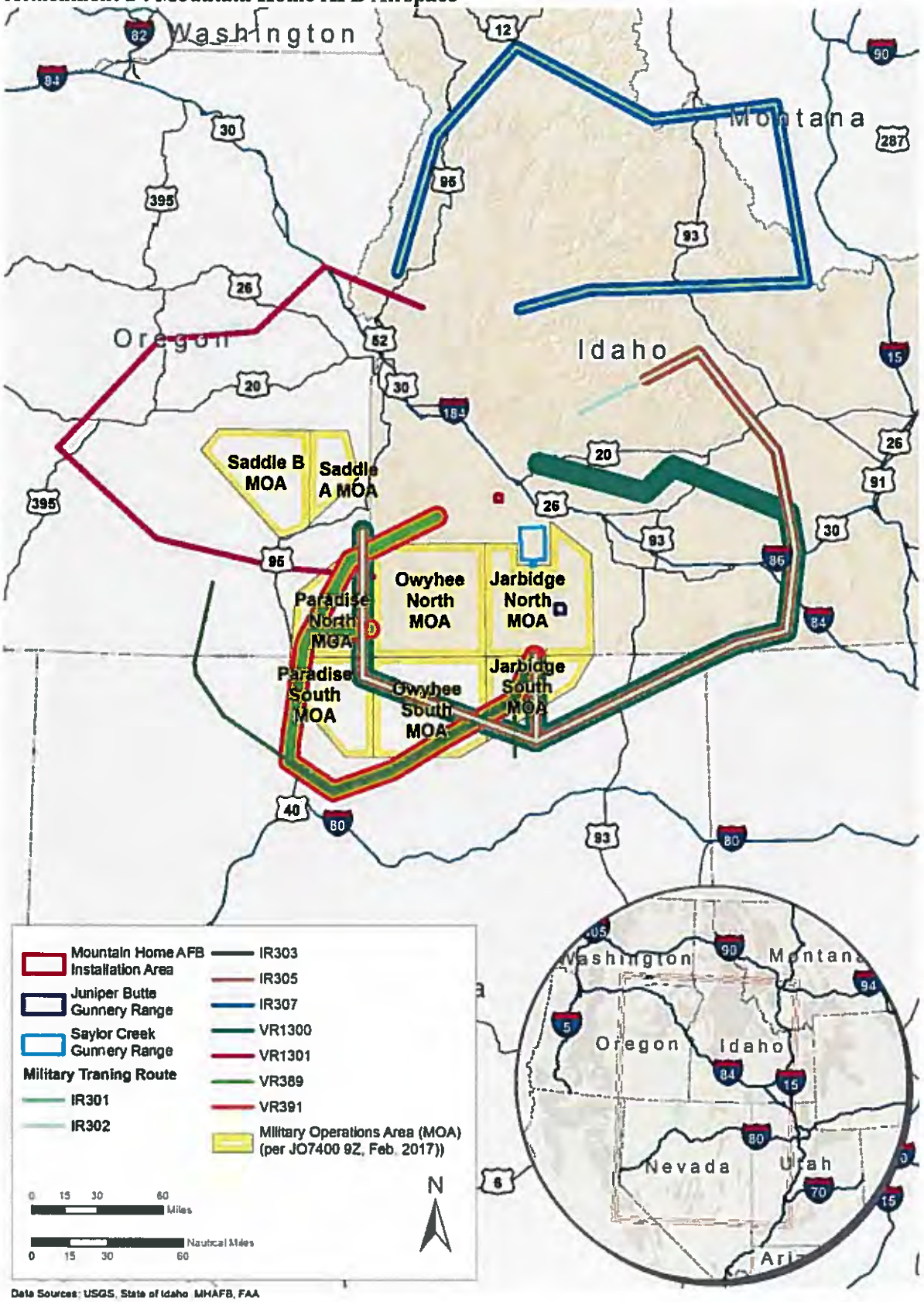
2 Attachments:
1. Project Area on Mountain Home AFB
2. Mountain Home AFB Airspace

Attachment 1 : Project Area on Mountain Home AFB



Data Sources: USGS, State of Idaho, HDR 2017

Attachment 2 : Mountain Home AFB Airspace



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

29 JAN 2018

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue Ste, 331
Mountain Home AFB ID 83648

Mr. Joe DeLaRosa
Chairman
Burns Paiute Tribe
100 Pasigo St
Burns OR 97720

Dear Chairman DeLaRosa

The purpose of this letter is twofold: to give you an opportunity to review and comment on a proposed action in which the Burns Paiute Tribe may have an interest; and to invite you to participate in Section 106 consultation for the Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho, as required under the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR § 800. An invitation to participate in government-to-government consultation for this action was previously sent to you on October 27, 2017. In separate communication, the U.S. Air Force has also provided you with a copy of the Draft Environmental Assessment (EA) for this action, prepared in compliance with the National Environmental Policy Act (NEPA).

As described in the Description of the Proposed Action and Alternatives (DOPAA) provided to you in our October 27, 2017 letter, the undertaking consists of the USAF proposal to increase the number of permanently assigned RSAF F-15SG aircraft at Mountain Home AFB from 14 to 20, for a total of 62 F-15E and F-15SG aircraft housed on base to train within established airspace. The undertaking would also include construction and renovation of support facilities; and increases in personnel, aircraft operations, and two types of inert munitions use.

Specifically, the undertaking would include a 10,000-square foot addition to the west elevation of Building 1364, a 14,000-square foot addition to the west elevation of Building 1365, a 45,000-square foot addition to the Aerospace Ground Equipment (AGE) storage yard, renovations to Building 1335 and 1361, and construction of new facilities for engine storage and an aviation sunshade. Seven temporary trailers would be installed for use as office space during facility modifications and would be removed following construction. Repairs and refurbishment of existing munitions storage facilities approximately 0.5 mile north of the flight line are also included. Under Alternative 1, Mountain Home AFB would conduct all activities described under the Proposed Action except that a 4,500-square foot addition to the west elevation of Building 1315 would be constructed rather than renovating Building 1361. Alternative 1 would also include construction of four munitions storage facilities approximately 0.5 mile north of the flight line (see Attachments 1 and 2). The RSAF squadron would continue to operate as a separate fighter squadron under the operational control of the 366 FW and there would be no change in the mission for the installation.

We had previously attached a copy of the DOPAA for your review. Pursuant to Section 106 of the NHPA, implementing regulations at 36 CFR Part 800, and Department of Defense Instruction 4710.02 section 6, DoD Interactions with Federally-Recognized Tribes, we request government-to-government consultation on this Proposed Action. In particular, we invite you, pursuant to 36 CFR Section 800.4(a)(4), to provide information on any properties of historic, religious, or cultural significance that may be affected by our proposed undertaking. Regardless of whether the Tribe chooses to consult on this project, the U.S. Air Force will comply with the Native American Graves Protection and Repatriation Act by informing you of any inadvertent discovery of archaeological or human remains and consulting on their disposition.

We look forward to your participation in this process and would appreciate receiving questions or comments within 30 days from receiving this correspondence. For matters related to government-to-government consultation, you may contact me directly at (208) 828-2366. If you have any questions or comments, please contact the Installation Tribal Liasons Officer, Ms. Barbara Hurt, at Barbara.hurt@us.af.mil, by phone at (208) 728-4536, or by postal mail at: Barbara Hurt, 366 Gunfighter Avenue, Ste. 331, Mountain Home, ID 83648.

Respectfully

JOSEPH D. KUNKEL, Colonel, USAF

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1. Project Area on Mountain Home AFB
2. Mountain Home AFB Airspace

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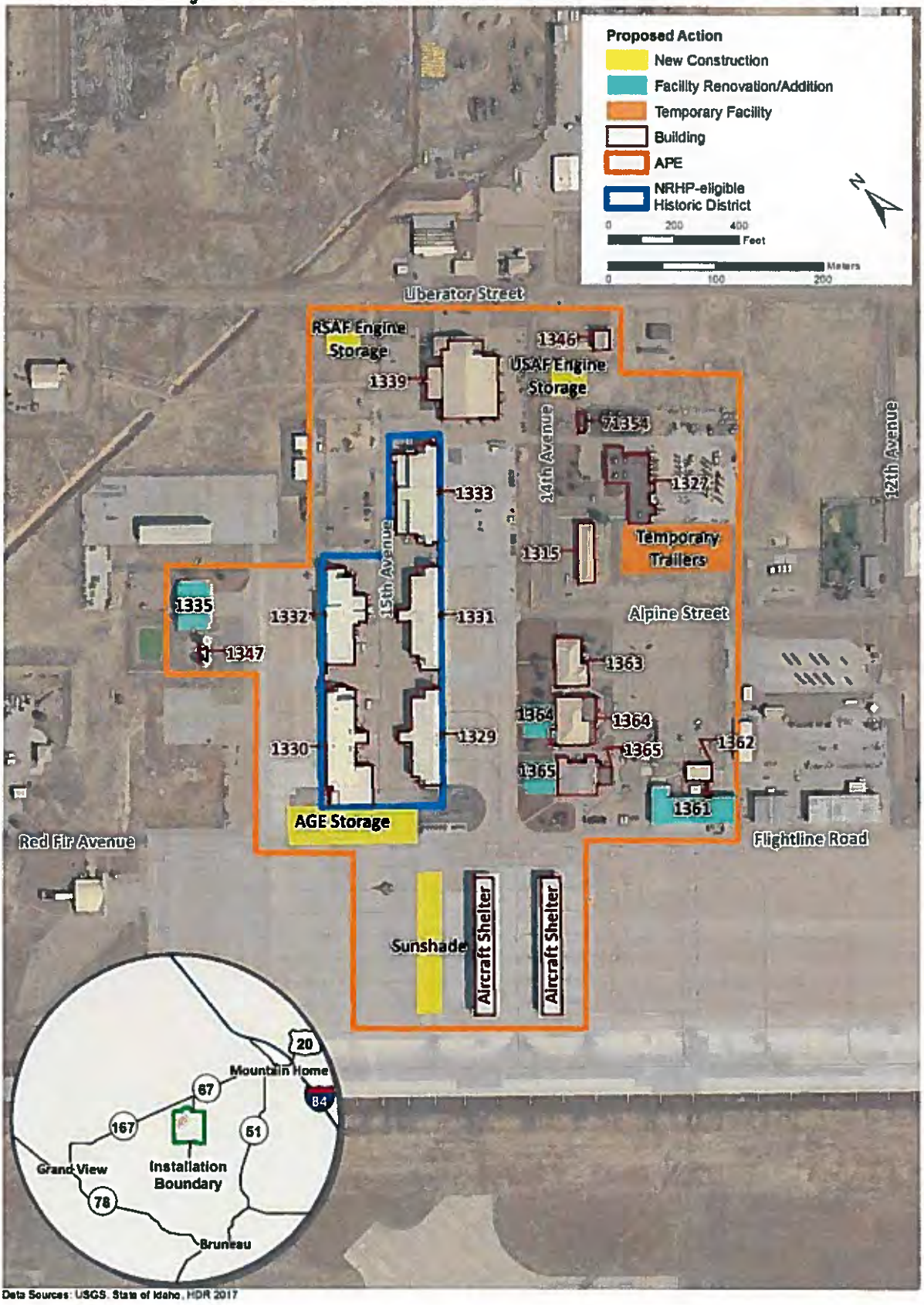

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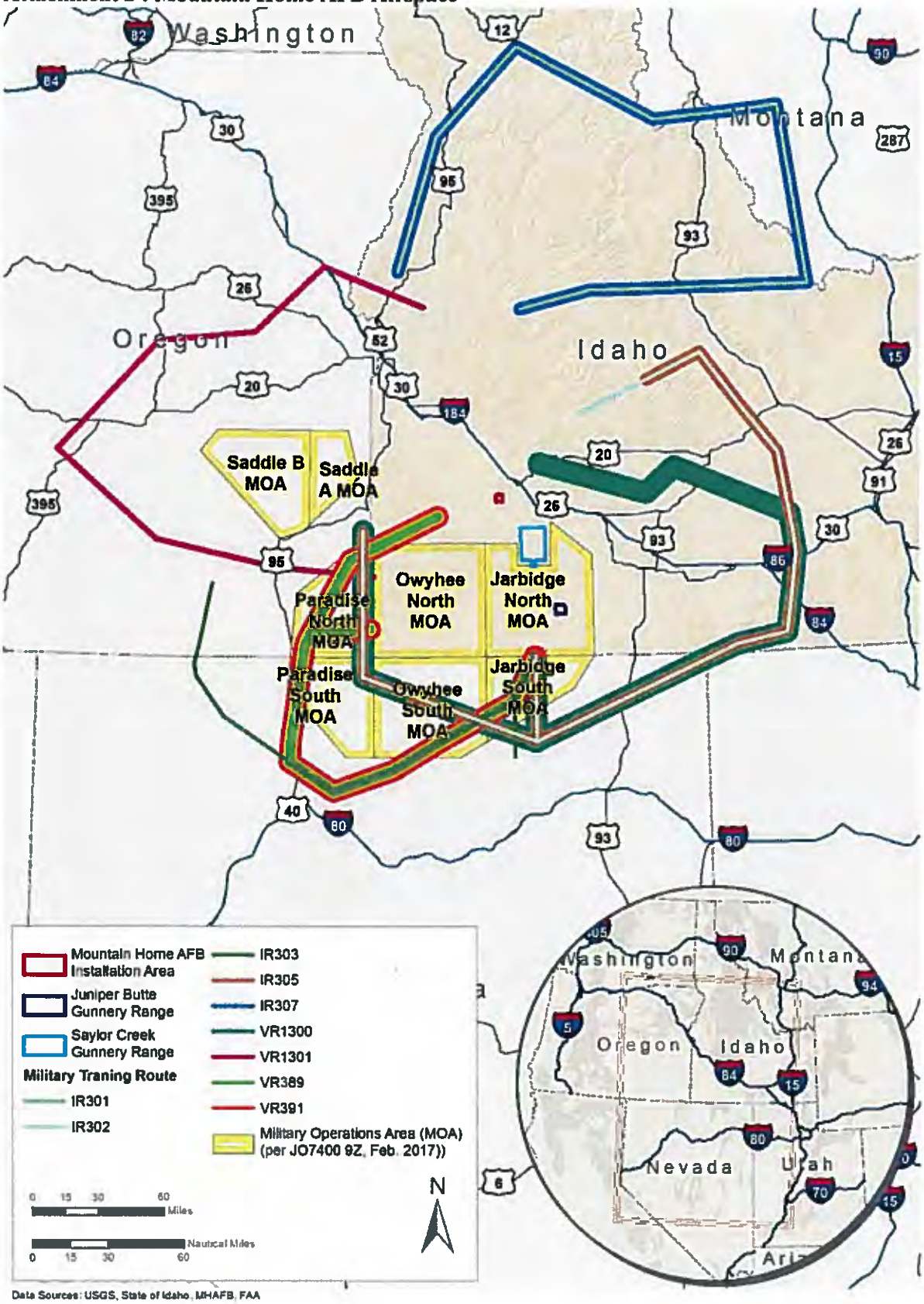

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

29 JAN 2018

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue, Ste 331
Mountain Home AFB ID 83648

Mr. Theodore Howard
Chairman
Shoshone-Paiute Tribes of Duck Valley Indian Reservation
P.O. Box 219
Owyhee NV 89832

Dear Chairman Howard

The purpose of this letter is twofold: to give you an opportunity to review and comment on a proposed action in which the Shoshone-Paiute Tribes of Duck Valley may have an interest; and to invite you to participate in Section 106 consultation for the Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho, as required under the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR § 800. An invitiation to participate in government-to-government consultation for this action was previously sent to you on October 27, 2017. In separate communication, the U.S. Air Force has also provided you with a copy of the Draft Environmental Assessment (EA) for this action, prepared in compliance with the National Environmental Policy Act (NEPA).

As described in the Description of the Proposed Action and Alternatives (DOPAA) provided to you in our October 27, 2017 letter, the undertaking consists of the USAF proposal to increase the number of permanently assigned RSAF F-15SG aircraft at Mountain Home AFB from 14 to 20, for a total of 62 F-15E and F-15SG aircraft housed on base to train within established airspace. The undertaking would also include construction and renovation of support facilities; and increases in personnel, aircraft operations, and two types of inert munitions use.

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We had previously attached a copy of the DOPAA for your review. Pursuant to Section 106 of the NHPA, implementing regulations at 36 CFR Part 800, and Department of Defense Instruction 4710.02 section 6, DoD Interactions with Federally-Recognized Tribes, we request government-to-government consultation on this Proposed Action. In particular, we invite you, pursuant to 36 CFR Section 800.4(a)(4), to provide information on any properties of historic, religious, or cultural significance that may be affected by our proposed undertaking. Regardless of whether the Tribe chooses to consult on this project, the U.S. Air Force will comply with the Native American Graves Protection and Repatriation Act by informing you of any inadvertent discovery of archaeological or human remains and consulting on their disposition.

We look forward to your participation in this process and would appreciate receiving questions or comments within 30 days from receiving this correspondence. For matters related to government-to-government consultation, you may contact me directly at (208) 828-2366. If you have any questions or comments, please contact the Installation Tribal Liasons Officer, Ms. Barbara Hurt, at Barbara.hurt@us.af.mil, by phone at (208) 728-4536, or by postal mail at: Barbara Hurt, 366 Gunfighter Avenue, Ste. 331, Mountain Home, ID 83648.

Respectfully

JOSEPH D. KUNKEL, Colonel, USAF

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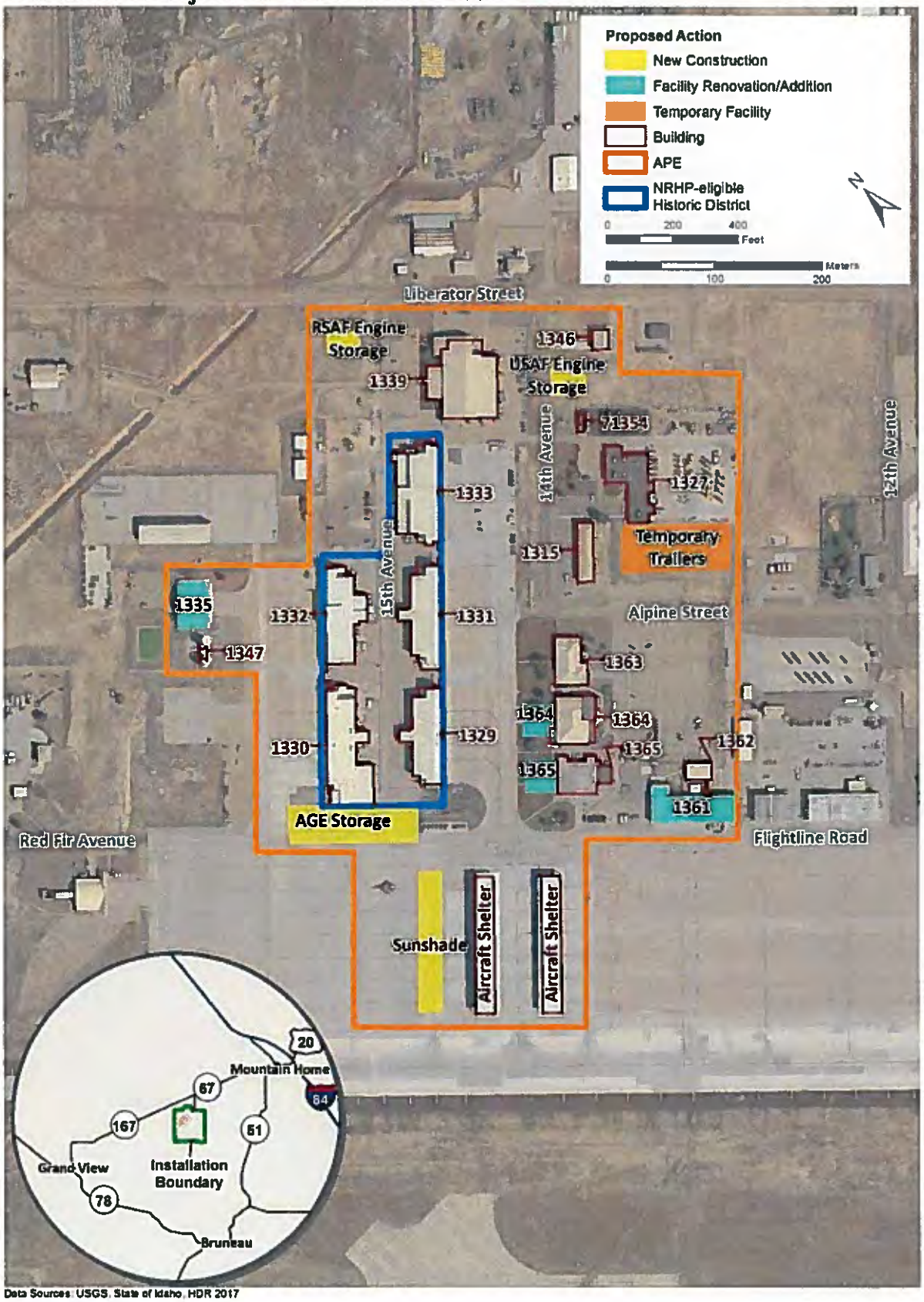

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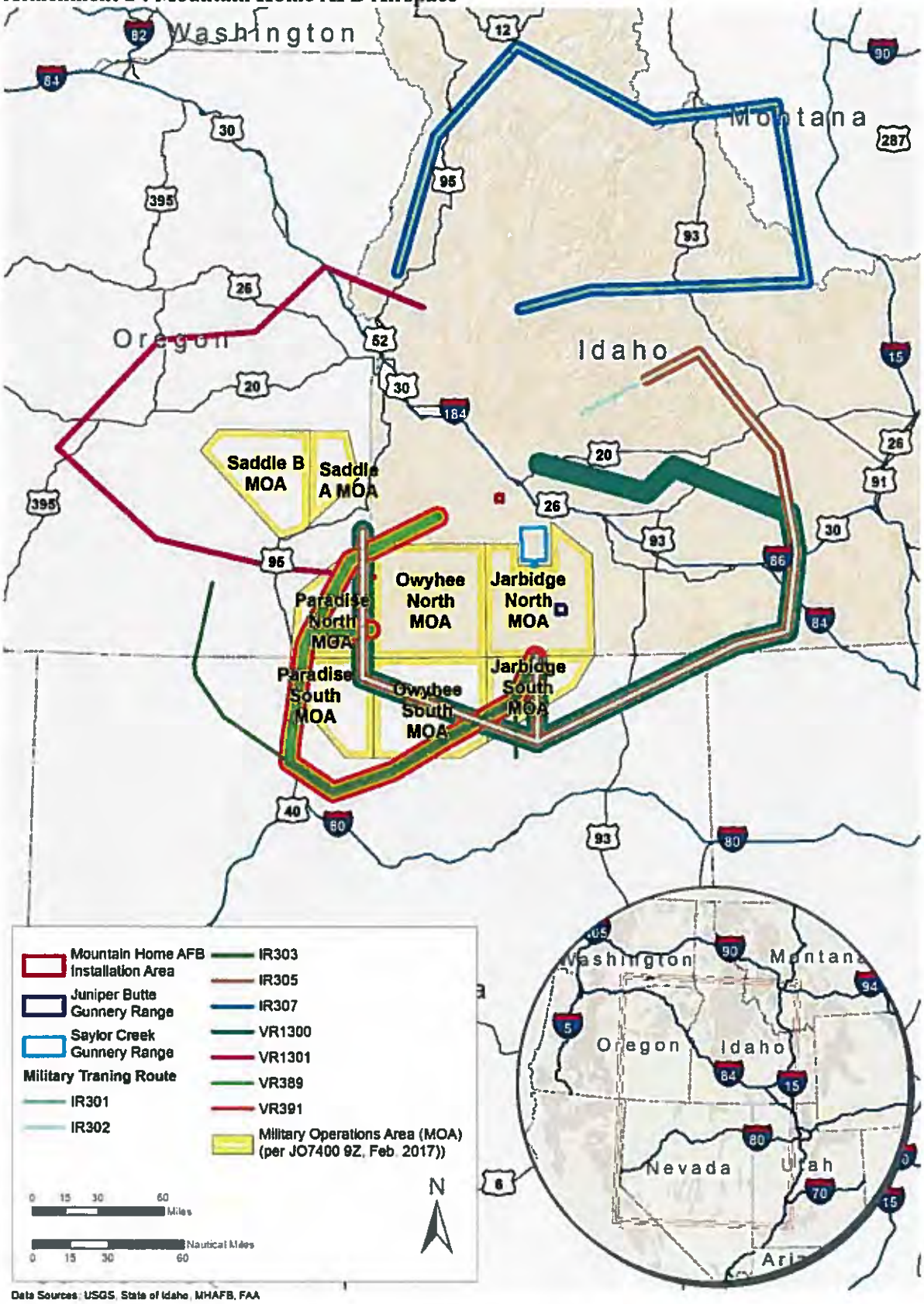

Data Sources: USGS, State of Idaho, MHAFB, FAA

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

29 JAN 2018

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue, Ste 331
Mountain Home AFB ID 83648

Mr. Nathan Small
Chairman
Shoshone Bannock Tribes
P.O. Box 306
Fort Hall ID 83203

Dear Chairman Small

The purpose of this letter is twofold: to give you an opportunity to review and comment on a proposed action in which the Shoshone Bannock Tribes may have an interest; and to invite you to participate in Section 106 consultation for the Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho, as required under the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR § 800. An invitiation to participate in government-to-government consultation for this action was previously sent to you on October 27, 2017. In separate communication, the U.S. Air Force has also provided you with a copy of the Draft Environmental Assessment (EA) for this action, prepared in compliance with the National Environmental Policy Act (NEPA).

As described in the Description of the Proposed Action and Alternatives (DOPAA) provided to you in our October 27, 2017 letter, the undertaking consists of the USAF proposal to increase the number of permanently assigned RSAF F-15SG aircraft at Mountain Home AFB from 14 to 20, for a total of 62 F-15E and F-15SG aircraft housed on base to train within established airspace. The undertaking would also include construction and renovation of support facilities; and increases in personnel, aircraft operations, and two types of inert munitions use.

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We had previously attached a copy of the DOPAA for your review. Pursuant to Section 106 of the NHPA, implementing regulations at 36 CFR Part 800, and Department of Defense Instruction 4710.02 section 6, DoD Interactions with Federally-Recognized Tribes, we request government-to-government consultation on this Proposed Action. In particular, we invite you, pursuant to 36 CFR Section 800.4(a)(4), to provide information on any properties of historic, religious, or cultural significance that may be affected by our proposed undertaking. Regardless of whether the Tribe(s) chooses to consult on this project, the U.S. Air Force will comply with the Native American Graves Protection and Repatriation Act by informing you of any inadvertent discovery of archaeological or human remains and consulting on their disposition.

We look forward to your participation in this process and would appreciate receiving questions or comments within 30 days from receiving this correspondence. For matters related to government-to-government consultation, you may contact me directly at (208) 828-2366. If you have any questions or comments, please contact the Installation Tribal Liasons Officer, Ms. Barbara Hurt, at Barbara.hurt@us.af.mil, by phone at (208) 728-4536, or by postal mail at: Barbara Hurt, 366 Gunfighter Avenue, Ste. 331, Mountain Home, ID 83648.

Respectfully

JOSEPH D. KUNKEL, Colonel, USAF

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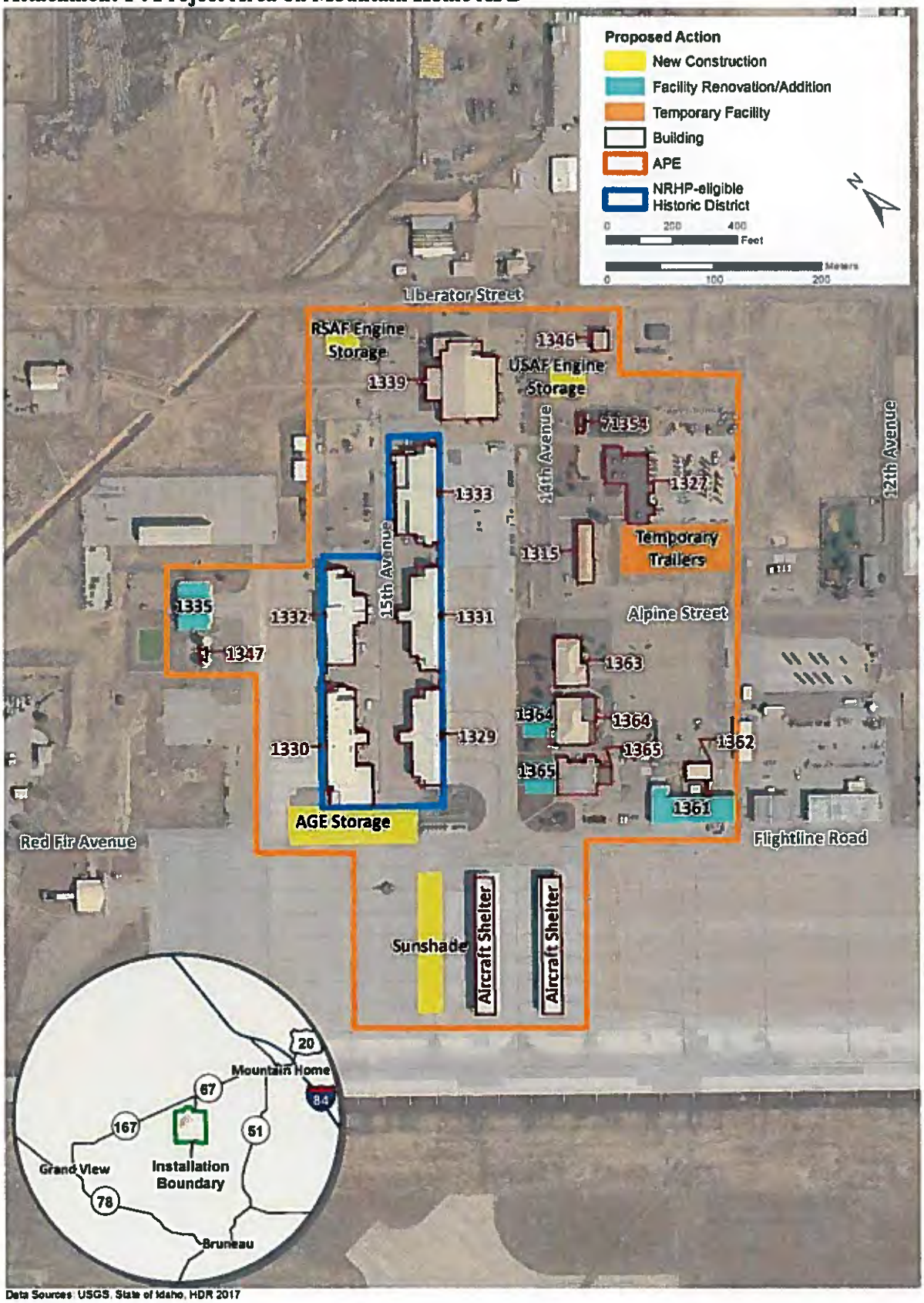

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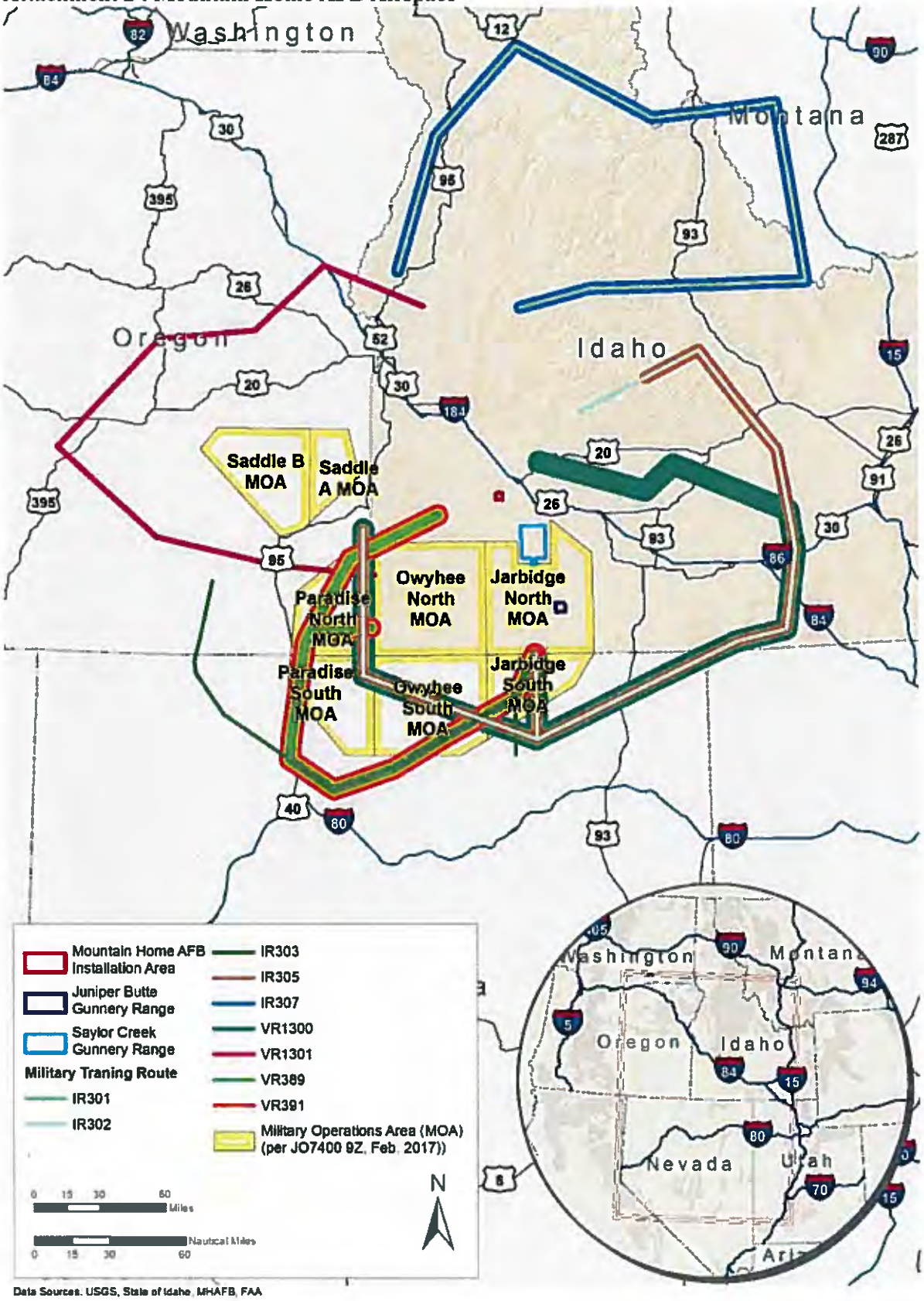

Data Sources: USGS, State of Idaho, MHAFB, FAA

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

29 JAN 2018

Colonel Joseph D. Kunkel
Commander
366 Gunfighter Avenue, Ste 331
Mountain Home AFB ID 83648

Mr. Shane Warner, Chairman
Northwestern Band of the Shoshone Nation
Brigham City Tribal Office
707 N Main St
Brigham City UT 84302

Dear Chairman Warner

The purpose of this letter is twofold: to give you an opportunity to review and comment on a proposed action in which the Northwestern Band Shoshone Nation may have an interest; and to invite you to participate in Section 106 consultation for the Beddown of Additional Republic of Singapore Air Force (RSAF) F-15SGs at Mountain Home Air Force Base (AFB), Idaho, as required under the National Historic Preservation Act (NHPA) and its implementing regulations at 36 CFR § 800. An invitiation to participate in government-to-government consultation for this action was previously sent to you on October 27, 2017. In separate communication, the U.S. Air Force has also provided you with a copy of the Draft Environmental Assessment (EA) for this action, prepared in compliance with the National Environmental Policy Act (NEPA).

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Respectfully

JOSEPH D. KUNKEL, Colonel, USAF

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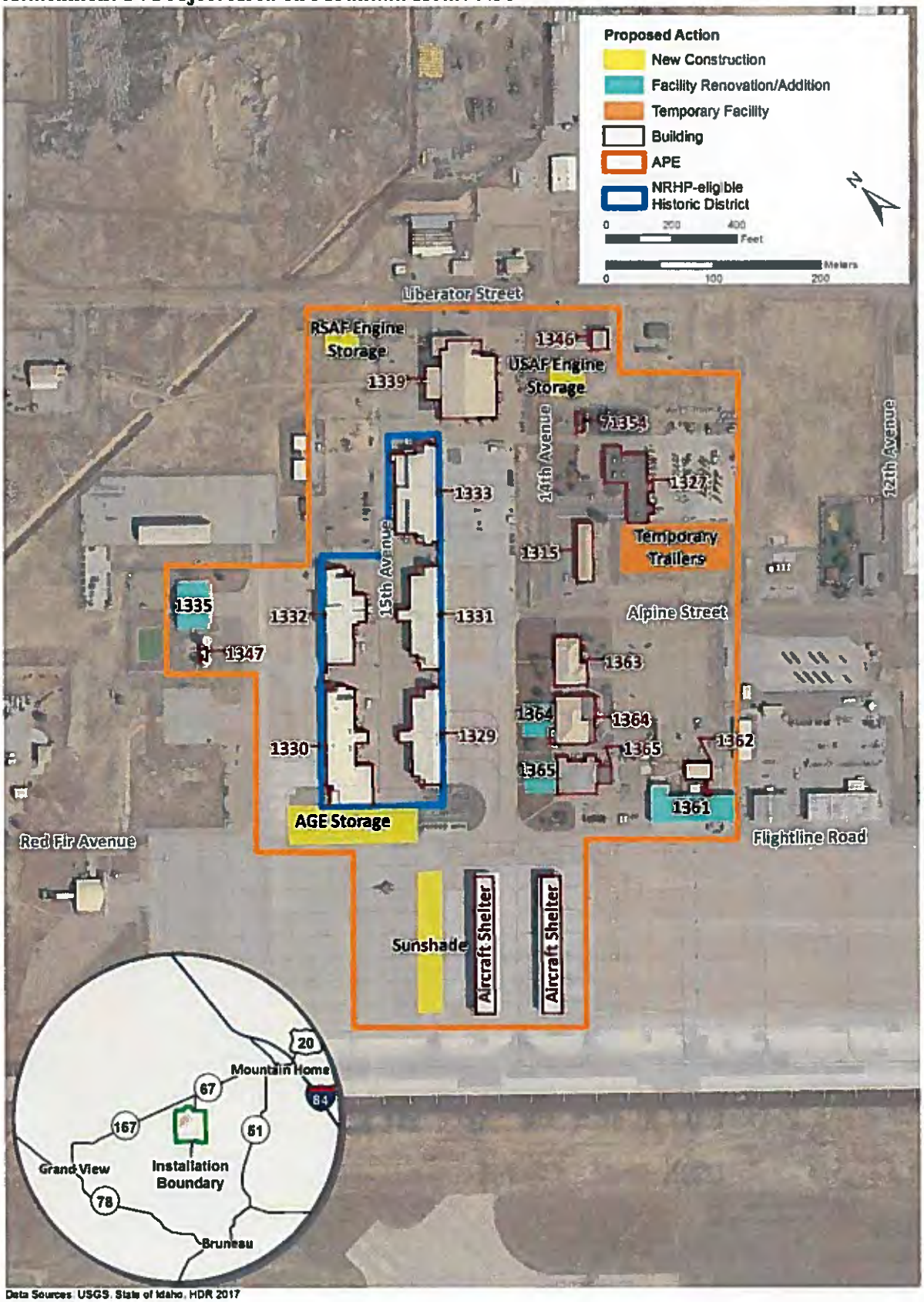

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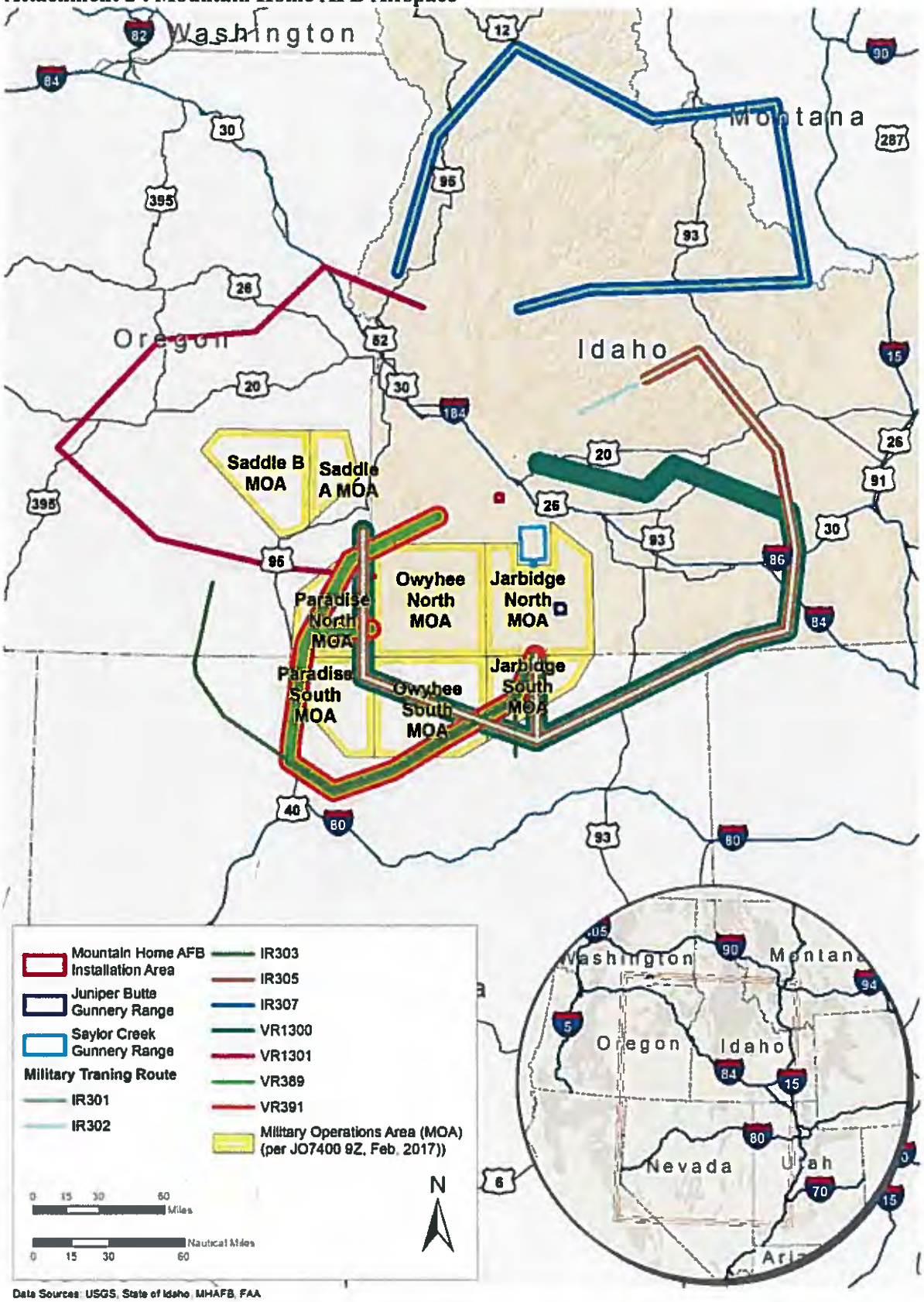

Data Sources: USGS, State of Idaho, MHAFB, FAA

IDAHO STATE HISTORICAL SOCIETY

C.L. "Butch" Otter
Governor of Idaho

Janet Gallimore
Executive Director
State Historic
Preservation Officer

Administration:
2205 Old Penitentiary Rd.
Boise, Idaho 83712
208.334.2682
Fax: 208.334.2774

Idaho State Museum:
610 Julia Davis Dr.
Boise, Idaho 83702
208.334.2120

Idaho State Archives and State Records Center:
2205 Old Penitentiary Rd.
Boise, Idaho 83712
208.334.2620

State Historic Preservation Office:
210 Main St.
Boise, Idaho 83702
208.334.3861

Old Idaho Penitentiary and Historic Sites:
2445 Old Penitentiary Rd.
Boise, Idaho 83712
208.334.2844

HISTORY.IDAHO.GOV

21 February 2018

Noelle Shaver
366th CES (ACC)
Mountain Home Air Force Base
1030 Liberator Street
Mountain Home AFB, Idaho 83648

Re: RSAF F-15SG Beddown / SHPO# 2018-333

Dear Ms. Shaver:

Thank you for consulting with our office on the above referenced project. We understand the scope of work includes additions to buildings 1364, 1365 and the AGE storage yard, as well as interior renovations to buildings 1335 and 1361. New facilities for engine storage and an aviation sunshade are also proposed, all within the boundaries of Mountain Home Air Force Base, located in Elmore County, Idaho.

After reviewing the project submittal, we concur building 1361 is not eligible for listing in the National Register of Historic Places. Pursuant to 36 CFR 800, we have applied the criteria of effect to the proposed undertaking. Based on the information received 22 January 2018, we also concur the proposed project actions will have **no adverse effect** to historic properties.

In the event that cultural material is inadvertently encountered during implementation of this project, work shall be halted in the vicinity of the finds until they can be inspected and assessed by the appropriate consulting parties.

If you have any questions or the scope of work changes, please contact me via phone or email at 208.488.7468 or matt.halitsky@ishs.idaho.gov.

Sincerely,

M. Halitsky

Matthew Halitsky, AICP
Historic Preservation Review Officer
Idaho State Historic Preservation Office

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

20 February 2018

MEMORANDUM FOR RECORD

FROM: 366 FW/CCP

SUBJECT: Consultation requested by Shoshone-Paiute Tribes concerning DRAFT Environmental Assessment (EA)

1. On Wednesday, 7 February 2018, while visiting the Duck Valley Indian Reservation, I was met briefly by Chairman Ted Howard of the Shoshone-Paiute Tribes. He spoke of concerns of a recent letter he revieved from Col Kunkel and stated he would not be providing comments through email. I asked if he desired a govertment-to-government setting to discuss his concerns and he responded, "Yes, I think we should have a government-to-government to discuss important issues". I stated I would coordinate a date with Angele Sabori, the Executive Secretary.

2. Please contact me with any questions or concerns at (208) 828-4536 or barbara.hurt@us.af.mil.

BARBARA S. HURT, GS-11, DAFC
Installation Tribal Liaison Officer

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

21 May 2018

MEMORANDUM FOR RECORD

FROM: 366 FW/CCP

SUBJECT: Follow-up with Paiute-Shoshone Tribes of the Fort McDermitt Indian Reservation concerning Proposed Beddown of Additional Republic of Singapore (RSAF) Aircraft at Mountain Home AFB

1. On Monday, 21 May 2018 at approximately 1035 hrs, I called the Paiute-Shoshone Tribes of the Fort McDermitt Indian Reservation and spoke to Chairman Nathan Small concerning the United States Air Force's intent to move forward with the proposed action to increase the number of RSAF F-15SGs from 14 to 20. I asked if the Paiute-Shoshone Tribes had any comments they'd like to provide for permanent record and Chairman Small replied, "No comments. No issues. Every now and then they fly low but we have no isuues."

2. Please direct any questions concerning this matter to me at (208) 828-4536 or barbara.hurt@us.af.mil.

BARBARA S. HURT, GS-11, DAFC
Installation Tribal Liaison Officer

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

21 May 2018

MEMORANDUM FOR RECORD

FROM: 366 FW/CCP

SUBJECT: Follow-up with Shoshone-Bannock Tribes of the Fort Hall Indian Reservation concerning Proposed Beddown of Additional Republic of Singapore (RSAF) Aircraft at Mountain Home AFB

1. On Monday, 21 May 2018 at approximately 1040 hrs, I called the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation and left a detailed message with the Cultural Resources Department concerning the United States Air Force's (USAF) intent to move forward with the proposed action to increase the number of RSAF F-15SGs from 14 to 20. In addition, I stated as of 21 May 2018, no comments have been received and therefore in accordance with 36 CFR 800, the USAF was moving forward with a determination of No Adverse Effects. Finally I stated if the Shoshone-Bannock Tribes had any comments they'd like to provide for permanent record to please contact me.

2. Please direct any questions concerning this matter to me at (208) 828-4536 or barbara.hurt@us.af.mil.

BARBARA S. HURT, GS-11, DAFC
Installation Tribal Liaison Officer

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

21 May 2018

MEMORANDUM FOR RECORD

FROM: 366 FW/CCP

SUBJECT: Follow-up with Burns Paiute Tribe concerning Proposed Beddown of Additional Republic of Singapore (RSAF) Aircraft at Mountain Home AFB

1. On Monday, 21 May 2018 at approximately 1046 hrs, I called the Burns Paiute Tribe and spoke to Vice Chairman Dean Adams concerning the United States Air Force's intent to move forward with the proposed action to increase the number of RSAF F-15SGs from 14 to 20. I asked if the Burns Paiute Tribes had any comments they'd like to provide for permanent record and Vice Chairman Adams replied, "No comments concerning this action."

2. Please direct any questions concerning this matter to me at (208) 828-4536 or barbara.hurt@us.af.mil.

BARBARA S. HURT, GS-11, DAFC
Installation Tribal Liaison Officer

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

21 May 2018

MEMORANDUM FOR RECORD

FROM: 366 FW/CCP

SUBJECT: Follow-up with Northwest Band of Shoshone concerning Proposed Beddown of Additional Republic of Singapore (RSAF) Aircraft at Mountain Home AFB

1. On Monday, 21 May 2018 at approximately 1050 hrs, I called the Northwest Band of Shoshone Tribe and spoke to Ms. Patty Timbimboo-Madsen from the Cultural Resources Department concerning the United States Air Force's intent to move forward with the proposed action to increase the number of RSAF F-15SGs from 14 to 20. I asked if the Northwest Band of the Shoshone Tribe had any comments they'd like to provide for permanent record and Ms. Timbimboo-Madsen replied, "No comments."

2. Please direct any questions concerning this matter to me at (208) 828-4536 or barbara.hurt@us.af.mil.

BARBARA S. HURT, GS-11, DAFC
Installation Tribal Liaison Officer

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 366TH FIGHTER WING (ACC)
MOUNTAIN HOME AIR FORCE BASE IDAHO

21 May 2018

MEMORANDUM FOR RECORD

FROM: 366 FW/CCP

SUBJECT: Follow-up with Shoshone-Paiute Tribes of the Duck Valley Indian Reservation concerning Proposed Beddown of Additional Republic of Singapore (RSAF) Aircraft at Mountain Home AFB

1. On Monday, 21 May 2018 at approximately 1054 hrs, I called the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation and spoke to Chairman Ted Howard concerning the United States Air Force's intent to move forward with the proposed action to increase the number of RSAF F-15SGs from 14 to 20. I asked if the Shoshone-Paiute Tribes had any comments they'd like to provide for permanent record and Chairman Howard replied, "Yes, concerning the range this means an increase in sorites and noise. This is sage grouse habitat and that needs to be clear."

2. Please direct any questions concerning this matter to me at (208) 828-4536 or barbara.hurt@us.af.mil.

BARBARA S. HURT, GS-11, DAFC
Installation Tribal Liaison Officer

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