

**Environmental Assessment (EA):
Proposed Construction of a Munitions Flight
Maintenance Facility
Hill Air Force Base, Utah**

**Department of the Air Force
Air Force Materiel Command
Design Engineering Support Program (DESP)
Hill Air Force base, Utah 84056**

July 2008

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FINDING OF NO SIGNIFICANT IMPACT

1. NAME OF ACTION: Construct Munitions Flight Maintenance Facility at Hill Air Force Base (AFB), Utah.

2. DESCRIPTION OF THE PROPOSED ACTION: Hill AFB proposes the construction of a new facility (Facility) for the 388th Fighter Wing (FW) Munitions Flight (Munitions Flight). The Facility would be used for: the maintenance of munitions assets trailers, administrative activities, and training operations. The Facility would have administrative offices, training areas, storage areas, a backup power supply, equipment bays (including an equipment wash rack), and a paint booth. The Facility would be approximately 25,165 square feet (sf) and would include specific parking areas at the building.

The Facility is intended to be used to repair and maintain trailers which transport munitions assets and to train wartime core task competencies. The Facility would also require special dedicated communication lines to support telephone and secure data systems. The activities of the Munitions Flight, which would be performed in the proposed Facility, are currently performed in four other buildings located in various locations on the Base.

Trailers, which transport munitions assets, would be maintained or repaired in the building. The maintenance would include preventative maintenance on munitions support/handling equipment. This would include changing tires, lubricating brakes, miscellaneous repairs (no welding), painting, sandblasting, and washing. The trailers would not have any munitions on them when they arrive at the Facility.

The Facility would also have training areas. These areas would be used to train personnel on wartime core task competencies. Inert munitions representing parent weapons will be used to train personnel. The training bay would function as a Munitions Assembly Conveyer (MAC) and Combat Munitions Training area.

The proposed site for the Munitions Maintenance Facility is at the north end of Garland Way, just west of underground water tanks 10927A and 10927B, approximately 1.2 miles to the east of the west entrance gate.

3. SELECTION CRITERIA: Based on the specific requirements for the Facility, a viable location for the building must be able to accommodate the following criteria:

1. Location needs to be close to or within the MAMS I area for better usage of fuel and personnel resources;
2. Antiterrorism and Force Protection (AT/FP) requirements must be achieved around the building location;
3. Location has to be large enough to accommodate POV (100 spaces) and GOV (25 spaces) parking;
4. The building must be located outside of the explosive Quantity-Distance (Q-D) arc of the MAMS I area; and
5. The building should be located in an industrial area.

6. The building must also allow workers to efficiently complete their assigned workload
7. The building must incorporate all required technologies; provide security measures for the various maintenance and munitions programs; and be protective of facilities, human health and the environment.

4. ALTERNATIVES CONSIDERED OTHER THAN THE PROPOSED ACTION:

Under the no action alternative, the Facility would not be constructed. The ability to perform effective munitions support and equipment maintenance functions would continue to be in violation of regulatory requirements potentially resulting in mission support degradation. The Munitions Flight's ability to meet the demands of future munitions operations would be severely limited. The No-Action Alternative was still evaluated in the EA to give a basis of comparison for the Proposed Action.

Other potential locations for housing the activities currently housed in Buildings 937, 938, 935, 50, and 586 were evaluated, but eliminated. These alternatives were not retained for detailed consideration due to the lack of other local facilities or locations on Base with sufficient space and/or security measures to accommodate the required workload.

5. SUMMARY OF ANTICIPATED ENVIRONMENTAL EFFECTS:

a. Proposed Action: This alternative fully satisfies all applicable regulations and provides for accomplishment of mission objective without significant impacts to the human health or the environment. During construction any wastes containing hazardous materials would be stored, transported, and disposed of properly.

The proposed action could be implemented with minor construction-related air emissions during construction. Potential air emissions would be covered under the Hill AFB Title V permit.

There would be temporary noise impacts during construction from large construction machinery and they will end when construction is complete. There are no long-term impacts expected for noise.

The proposed action would be expected to produce regulated solid and liquid waste streams. All non-recyclable regulated materials would be collected and disposed as hazardous wastes (some of the liquid would be treated in the Hill AFB Industrial Waste Treatment Plant).

b. No Action Alternative: Under the no action alternative, current conditions would continue. No environmental impacts were identified for the no action alternative.

6. **FINDING OF NO SIGNIFICANT IMPACT:** Based on the above considerations, a Finding of No Significant Impact (FONSI) is appropriate for this assessment.

Approved by:



STEPHANIE H. BINGGELI, YF-03, DAF
Director, 75TH Civil Engineer Group

Date: 20080130

Executive Summary

Purpose and Need

This Environmental Assessment (EA) has been prepared to analyze the potential environmental effects of a U.S. Air Force (USAF) proposal to construct a Munitions Flight Maintenance Facility (Facility) on Hill Air Force Base (AFB). The Facility would be used and controlled by the 388th Fighter Wing (FW) Munitions Flight (Munitions Flight). The Facility would be 25,165 square feet (sf) and would include specific parking areas on the north and south side and extension of access roads. The Facility would have areas for maintenance and administration including; training, storage, backup power supply, equipment bays, equipment wash rack, blasting booth and paint booth. The Facility is intended to be used to repair and maintain trailers which transport munitions assets, to train wartime core task competencies, and for administrative purposes including a control room.

The Munitions Flight is currently utilizing 5 buildings to conduct maintenance, training (non-explosive operations), and administration. Building 937 is assigned 10 people, Building 938 is assigned 11 people, Building 935 is assigned 36 people, Building 50 is assigned 29 people, and Building 586 is assigned 8 people.

The Munitions Flight responsibilities include:

- Maintenance of munitions trailers and ammunition loading units
- Controlling all special tools, equipment and testers for the Precision Guided Missile, Conventional Maintenance, and Equipment Maintenance
- Receiving, inspecting, and storing munitions related items with the Munitions Assembly, Maintenance and Storage Area (MAMS) (Note: no explosive related items are actually worked on within Building 935, this is all accomplished at other approved locations throughout the MAMS complex)
- Controlling, monitoring and dispatching all personnel, equipment, and munitions within the MAMS and on the flight line
- Monitoring and tracking the aircraft flying schedule program and ensuring munitions are scheduled for build-up to support the daily, weekly, monthly, and annual flying schedule.
- Ordering allocations, tracking allocations and maintaining the records on all munitions transactions and expenditures
- Mobilizing equipment for shipment to state side and overseas locations.
- Tracking and conducting ancillary training on all assigned personnel in the MAMS

The Munitions Flight has increased authorized personnel from 155 to 208 since October 2001, and will soon receive an additional 24 personnel from the 419th Reserve Fighter Wing (419th) at Hill AFB as part of the Total Force Integration (TFI) implemented in 1973. The Total Force Policy guides decisions about how the manpower resources available to the Department of Defense are structured to protect the nation's interests. This increase

in manpower has resulted in an administrative space shortage. The Munitions Flight needs to vacate Building 50, currently on loan from the Weapons Maintenance Flight, due to an increase in their personnel.

The new Facility would allow the Munitions Flight to consolidate 8 separate functional areas spread out among five facilities into one location. It would also be the central focal point for all 208 currently assigned personnel to be dispatched out from on a daily bases. The Facility would be the primary duty location for approximately 94 people and the primary reporting location for the remaining 114.

The Munitions Flight has performed a wide variety of self-help and workaround solutions to maximize the efficiency of existing facilities. These efforts however have reached their limit in their ability to overcome the shortfalls in required facility space. If the Munitions Flight mission is to remain an effective and cohesive unit, a new munitions administration and maintenance facility is mandatory. The Munitions Flight's ability to meet the demands of future munitions operations is severely limited. Without the new Facility, the ability to safely and securely perform effective munitions support equipment maintenance will continue to be compromised.

The geographical separation of munitions facilities limits the Munitions Flight's ability to effectively manage personnel, resources, and operations. The section supervisors are provided space in building 937 separating them from their assigned areas of responsibility. Due to limited Privately Owned Vehicle (POV) parking outside, but close to, the Munitions Assembly, Maintenance and Storage Area (MAMS), POVs have been allowed to park inside the MAMS. This is a violation of *AFI 31-101 – Air Force Installation Security Program*.

Scope of Review

During a scoping meeting held on April 14, 2008 at Hill AFB, and subsequent scoping interaction, the following environmental issues were addressed:

- Air quality
- Solid and hazardous wastes
- Biological resources
- Geology and Surface soils
- Water quality
- Occupational safety and health
- Air installation compatible use zone (AICUZ)
- Land use
- Cultural Resources
- Socioeconomic resources

As explained in the body of this document, the issues that were identified for detailed consideration are: air quality; solid and hazardous wastes; vegetation; water quality including drainage; noise; and socioeconomics. Environmental impacts of the no action alternative were also considered.

Selection Criteria

Based on the specific requirements for the Facility, a viable location for the building must meet the following criteria:

1. Location needs to be close to or within the current MAMS I area, but outside of the Quantity Distance (QD) arcs, for better usage of fuel and personnel resources;
2. Antiterrorism and Force Protection (AT/FP) requirements must be achievable around the building location;
3. Location has to be large enough to accommodate POV (100 spaces) and Government Operated Vehicles (GOV) (25 spaces) parking;
4. The building should be located in an industrial area;
5. The building must also allow workers to efficiently complete their assigned workload; and
6. The building must incorporate all required technologies; provide security measures for the various maintenance and munitions programs; and be protective of facilities, human health and the environment.

Proposed Action

Proposed Action - Construction of the Proposed Action would consist of approximately 4.6 acres of vacant property located northeast of the north end of Garland Way. The MAMS area fence would be extended to include the proposed building. POV (100 spaces) and GOV (25 spaces) parking would be available. The Facility would have areas for maintenance, administration (including offices and control room), training, storage, back-up power supply, equipment bays, and equipment wash rack (located outside of the Facility), sand blast booth, and a paint booth. The Facility would be approximately 25,500 square feet and the parking areas would total approximately 50,000 square feet. Trailers which transport munitions assets would be maintained or repaired in the building. The maintenance would include preventative maintenance on munitions support/handling equipment. This would include changing tires, lubricating brakes, miscellaneous repairs (no welding), painting, sandblasting, and washing. The trailers would not have any munitions on them when they arrive at the Facility.

The Facility would also have training areas. These areas would be used to train personnel on wartime core task competencies. Inert munitions representing parent weapons will be used to train personnel. The training bay would function as a Munitions Assembly Conveyer (MAC) and Combat Munitions Training area.

The new Facility would also consolidate all operations conducted in Buildings 937, 938, 935, 50 and 586 into one building. The operations that are currently taking place in these buildings are listed in the Purpose and Need Section.

No Action Alternative - Under the No-Action Alternative, the Munitions Maintenance Facility would not be constructed. The Munitions Flight's ability to meet the demands of future munitions operations would be severely limited. The ability to perform effective munitions support equipment maintenance would continue to be in violation of regulatory requirements potentially resulting in mission support degradation. Personnel would still be required to perform non-explosive operations in explosive operating locations. Safety

and security would continue to be compromised. The No-Action Alternative will still be analyzed within this document to give a basis of comparison for the Proposed Action.

Additional Alternatives - Additional alternatives involved either constructing the proposed facility in another location within Hill AFB boundaries or renovating an existing building. No other buildings were identified within the boundaries of Hill AFB that could accommodate this workload, either in its current condition or after being renovated. Likewise, there were no other areas located on Hill AFB that could accommodate the construction of the new Facility that would meet the requirements. Therefore, evaluation of another base location for construction of the facility has been dismissed from further consideration.

Results of the Environmental Assessment

The proposed action and the no action alternative were both considered in detail. During construction, wastes containing any contamination would be stored, transported, and disposed of properly.

The proposed action could be implemented with minor construction-related air emissions of short-term duration. Long-term air emissions would fall within the limits prescribed by the Hill AFB Title V permit.

The proposed action would be expected to produce regulated solid and liquid waste streams including paper wipes; rags; masking tape; filters from the wash rack; bearing grease; air filters; water from parts washing; residue from paint mixing and paint gun cleaning; and motor oil. All non-recyclable regulated materials would be collected and disposed as hazardous waste. Any liquids generated by wet concrete cutting activities or by cleaning surfaces during construction would be routed to and treated by the Hill AFB industrial wastewater treatment plant (IWTP). Operating the proposed Facility would generate waste water from the wash rack and the trailer maintenance area. There will be an oil/water separator in the wash bay and the grit will be cleaned out and disposed of as hazardous waste due to petroleum/oil/lubricants (POL) contamination. The oil/water separator will either be pumped out periodically or discharged into the sewer system if permitted by the sewage treatment plant.

Operating the proposed Facility would generate liquid waste streams from regulated liquids that would be collected in containers, labeled, and transported off Base to be treated, and/or disposed in accordance with federal and state regulations. Refer to **Appendix C** for a summary of regulated liquids.

The Facility would also generate used motor oil for which recycling opportunities are likely to exist. Any oil not meeting recycling criteria would be collected in containers, and transported off base to be treated, and/or disposed of properly.

The proposed action would be expected to disturb vegetated areas. Measures would be taken during construction to limit the spread of noxious weed species. There are no Long-term noise impacts associated with the proposed action. There may be minor noise increases during construction; however, the proposed site is located in an industrial area.

The proposed action would be expected to produce short-term (during design and construction) opportunities for local design firms and construction workers, and provide a long-term (life of the building) work environment for approximately 100 employees.

No significant short or long-term environmental impacts are expected from either the proposed action or the no action alternative.

Summary Comparison of Alternatives

Resource Category	Proposed Action	No-Action
Air Quality	Temporary construction-related emissions. Air impacts from the use of the Facility and the operations inside fall within the limits prescribed by the Hill AFB Title V permit.	Current conditions would continue
Solid and Hazardous Wastes	Solid and liquid wastes containing regulated products would all be properly stored, transported, disposed, and/or re-used or recycled.	Current conditions would continue
Biological Resources Vegetation	Removal of grass/weed vegetation on site (possible invasion of noxious weeds from construction activities).	Current conditions would continue
Water Resources Surface water (drainage)	Roof and paved areas will be drained via sheet flow to on-site drainage facilities. Any storm water not collected on-site would flow towards Pond #5	Current conditions would continue

Resource Category	Proposed Action	No-Action
Noise	Temporary construction-related noise would occur. There should not be any continuing noise impacts to those in the building, as it would be constructed to reduce outside noise from aircraft or other loud operations. Activities within the building are not expected to increase noise levels outside of the building.	Current conditions would continue
Socioeconomic	<p>Short-term (design and construction – approximately 2 years) opportunities would exist for local civilian design and construction workers.</p> <p>In the long-term (life of Munitions Flight Operations in building) approximately 94 military personnel would work in the building, and the remaining 138 would report to supervisors within the Facility.</p> <p>High utility and maintenance costs (for upkeep and operations of older facilities) would not continue to be paid by Hill AFB.</p>	Hill AFB could incur high maintenance and repair costs for existing facilities, exceeding new construction costs

**Environmental Assessment
Munitions Flight Maintenance Facility**

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List of Acronyms

75 AMDS/SGPB	Bio-environmental Engineering Flight
AFB	Air Force Base
AFMAN	Air Force Manual
AFOSH	Air Force Occupational Safety and Health
AICUZ	Air Installation Compatible Use Zone
ASHRAE/IESNA	American Society of Heating Refrigerating and Air- Conditioning Engineers, Inc. / Illuminating Engineering Society of North America
AT/FP	Antiterrorism and Force Protection
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CSCP	Construction Stormwater Control Plan
CWA	Clean Water Act
DAQ	Department of Air Quality
dB	decibel
dBA	A-weighted decibel
DOE	Department of Energy
DRMO	Defense Reutilization and Marketing Office
EA	Environmental Assessment
ECZ	Explosive Clear Zone
EIAP	Environmental Impact Analysis Process
EO	Executive Order
EPA	Environmental Protection Agency
Facility	388FW Flight Maintenance Facility
FW	Fighter Wing
GOV	Government Operated Vehicle
HAP	Hazardous Air Pollutant
HEPA	High-Efficiency Particulate Air
ICBM	Intercontinental Ballistic Missile
IRP	Installation Restoration Program
IWTP	Industrial Wastewater Treatment Plant
MAMS	Missile Assembly, Maintenance and Storage Area
MSA	Munitions Storage Area

MSEM	Munitions Support Equipment Maintenance
Munitions Flight	388FW Munitions Flight
NAAQS	National Ambient Air Quality Standards
NDCSD	North Davis County Sewer District
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NO _x	Oxides of Nitrogen
O ₃	ozone
OSHA	Occupational Safety and Health Administration
PM-10	Particulates smaller than 10 microns in diameter
PM-2.5	Particulates smaller than 2.5 microns in diameter
PPE	Personal Protective Equipment
POV	Privately Owned Vehicle
PTE	Potential to Emit
QD	Quantity Distance
RCRA	Resource Conservation and Recovery Act
sf	square feet
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SO _x	Oxides of Sulfur
UAC	Utah Administrative Code
UBC	Uniform Building Code
UPDES	Utah Pollutant Discharge Elimination System
USAF	U.S. Air Force
VOC	Volatile Organic Compound

1.0 PURPOSE AND NEED FOR THE ACTION

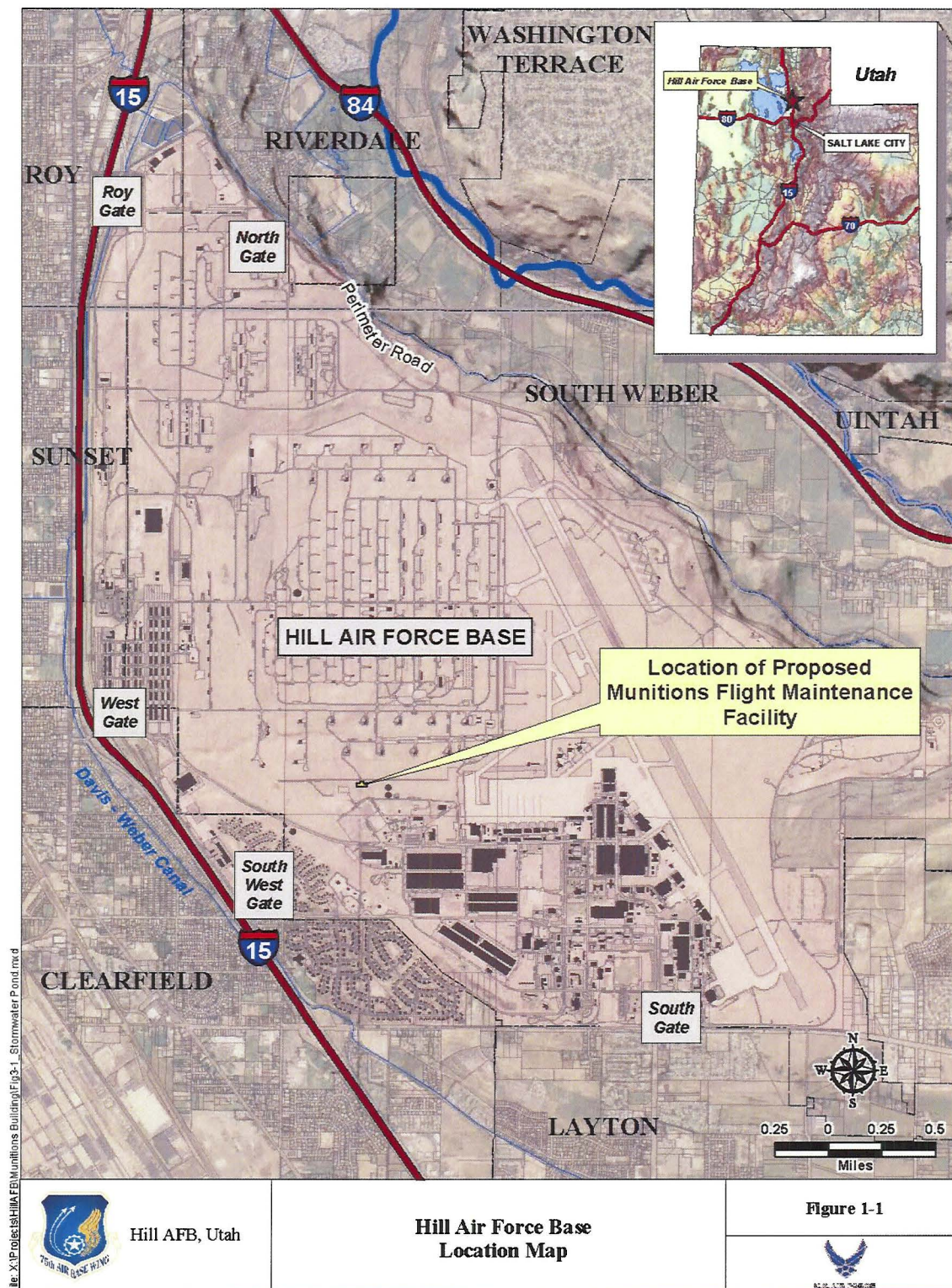
1.1 Introduction

This Environmental Assessment (EA) has been prepared to analyze the potential environmental effects of a U.S. Air Force (USAF) proposal to construct a Munitions Flight Maintenance Facility (Facility) on Hill Air Force Base (AFB).

1.2 Background

Hill AFB is located in northern Utah about 25 miles north of Salt Lake City and approximately 7 miles south of Ogden (**Figure 1-1**). The principal mission of Hill AFB includes the maintenance and management of aircraft and missiles. In support of that mission Hill AFB provides worldwide engineering and logistics management for the F-16 Fighting Falcon, A-10 Thunderbolt II, and the Minuteman III intercontinental ballistic missile (ICBM); performs depot maintenance of the F-16 Fighting Falcon, A-10 Thunderbolt II, and C-130 Hercules aircraft; overhauls and repairs all types of landing gear, wheels, brakes and tires; and is the logistics manager for all conventional air munitions, solid propellants and explosive devices used throughout the Air Force.

1.2.1 Location Map



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1.3 Proposed Action

The proposed action is the construction of a new facility for the 388th Fighter Wing (FW) Munitions Flight (Munitions Flight). The Facility would be used for: the maintenance of munitions assets trailers, administrative activities, and training operations. The Facility would have administrative offices, training areas, storage areas, a backup power supply, equipment bays (including an equipment wash rack), and a paint booth. The Facility would be approximately 25,165 square feet (sf) and would include specific parking areas at the building.

The Facility is intended to be used to repair and maintain trailers which transport munitions assets and to train wartime core task competencies. The Facility would also require special dedicated communication lines to support telephone and secure data systems. The activities of the Munitions Flight, which would be performed in the proposed Facility, are currently performed in four other buildings located in various locations on the Base.

Trailers, which transport munitions assets, would be maintained or repaired in the building. The maintenance would include preventative maintenance on munitions support/handling equipment. This would include changing tires, lubricating bearings, repairing brakes, miscellaneous repairs (no welding), painting, sandblasting, and washing. The trailers would not have any munitions on them when they arrive at the Facility.

The Facility would also have training areas. These areas would be used to train personnel on wartime core task competencies. Inert munitions representing parent weapons will be used to train personnel. The training bay would function as a Munitions Assembly Conveyor (MAC) and Combat Munitions Training area.

Hill AFB is surrounded by several communities: Roy City and Riverdale to the north; South Weber to the northeast; Layton to the south; and Clearfield, Sunset, and Clinton to the west. The Base lies primarily in northern Davis County with a small portion located in southern Weber County.

The proposed site for the Munitions Maintenance Facility is at the north end of Garland Way, just west of underground water tanks 10927A and 10927B (**Figure 1-2**). Approximately 1.2 miles to the east of the west entrance gate.



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1.4 Need for the Proposed Action

The Munitions Flight is currently utilizing five buildings to conduct maintenance, training (non-explosive operations), and administrative activities. The Munitions Flight has increased authorized personnel from 155 to 232 since October 2001, and will soon receive additional personnel from the 419th Reserve FW (419th) at Hill AFB. The 419th is being integrated with the Munitions Flight as part of Total Force Integration (TFI). The Total Force Policy guides decisions about how the manpower resources available to the Department of Defense are structured to protect the nation's interests. This increase in manpower has resulted in an administrative space shortage. The space currently used in Building 50 is on-loan from the Weapons Maintenance Flight which has experienced a similar increase in manpower. Refer to Table 1-1 for a summary of the buildings currently occupied by the Munitions Flight and the duties performed within each building.

Table 1-1: Summary of Buildings Currently Occupied by the Munitions Flight and the Functions Performed in each Building

Building Number	Description of Functions and Personnel in Building
50	This building is a shared facility that is owned by the Armament Shop and has loaned out office space to the Munitions Flight on their second floor with a total of 29 people assigned. The Munitions Control, Plans and Scheduling, and Aircraft Munitions Operations (AFK) Sections are operated from this building. Munitions Control is the central nerve center that controls, monitors and dispatches all personnel, equipment, and munitions within the MAMS and on the flight line. The Munitions Control is operated 24 hours a day 7 days a week. Plans and Scheduling monitors and tracks the aircraft flying schedule program and ensures munitions are scheduled for build-up to support the daily, weekly, monthly, and annual flying schedule. AFK is the supply function for the MAMS and they order allocations, track allocation and maintain the records on all munitions transactions and expenditures.
586	This building contains the Munitions Flight Combat Plans Mobility and Training Sections with a total of 8 people assigned. They are responsible for mobilization of equipment for shipment to state side and overseas locations. They also track and conduct ancillary training on all assigned personnel in the MAMS.
935	This building contains the Stock Pile Surveillance and Inspection Section and Equipment Maintenance Section with a total of 36 people assigned. The Stock Pile Surveillance and Inspection Section is responsible for receiving, inspecting, and storing munitions related items with the Munitions Assembly, Maintenance and Storage Area (MAMS) (Note: no explosive related items are actually worked on within Building 935, this is all accomplished at other approved locations throughout the MAMS complex). Building 935 also serves as the primary office location. The Equipment Maintenance Section is responsible for the scheduled and unscheduled maintenance of munitions trailers and ammunition loading units. This is the Section that would be using the maintenance areas at the new Facility.

Building Number	Description of Functions and Personnel in Building
937	This building currently houses the administration offices and flight supervision offices with a total of 10 people assigned. They are responsible for all policy, procedure, administrative and supervision of 208 assigned personnel.
938	This building contains the tool room and support section and the hazardous materials lockers. The building has a total of 11 people assigned. They maintain control of all special tools, equipment, and testers for the Precision Guided Missile, Conventional Maintenance, and Equipment Maintenance sections.

The Munitions Flight has performed a wide variety of self-help and workaround solutions to maximize the efficiency of existing facilities. These efforts however have reached their limit in their ability to overcome the shortfalls in required facility space. If the Munitions Flight mission is to remain an effective and cohesive unit, a new munitions administration and maintenance facility is mandatory. The Munitions Flight's ability to meet the demands of future munitions operations is severely limited. Without the new Facility, the ability to safely and securely perform effective munitions support equipment maintenance will continue to be compromised.

The geographical separation of munitions facilities limits the Munitions Flight's ability to effectively manage personnel, resources, and operations. The section supervisors are provided space in Building 937 separating them from their assigned areas of responsibility. Due to limited Privately Owned Vehicle (POV) parking outside, but close to, the Missile Assembly, Maintenance and Storage Area (MAMS), POVs have been allowed to park inside the MAMS. This is a violation of *AFI 31-101 – Air Force Installation Security Program*.

1.5 Scoping and Issues

The scope of this environmental analysis is to explore environmental issues related to the proposed action (construct Munitions Maintenance Facility) on Hill AFB and the reasonable alternatives identified in this document.

1.5.1 Scoping

On April 14, 2008, an initial scoping meeting was conducted in Building 5, Hill AFB. Attendees included proponents of the proposed action, managers of Hill AFB's National Environmental Policy Act (NEPA) program, other employees of the Hill AFB environmental program, and the consultant for the preparation of the EA.

Scoping discussions were held to:

- Identify potential environmental concerns
- Facilitate an efficient environmental analysis process
- Identify issues and alternatives that would be examined in detail, and eliminate environmental issues that have no significant impact

- Save time in the overall process by helping to ensure that draft documents would adequately address relevant issues, thereby reducing the possibility that comments would cause a document to be substantially rewritten

During this meeting and subsequent scoping interaction, the following environmental issues were addressed:

- Air quality
- Solid and hazardous wastes
- Biological resources
- Geology and Surface soils
- Water quality
- Occupational safety and health
- Air installation compatible use zone (AICUZ)
- Land use
- Cultural Resources
- Socioeconomic resources

1.5.2 Environmental Issues

As directed by the USAF Environmental Impact Analysis Process (EIAP) the following areas of potential impacts were considered.

- **Air Quality:** attainment status, emissions, and Utah's state implementation plan (SIP)

During the construction of the Facility, air emissions would be produced by construction equipment. Construction activities would likely generate fugitive dust. There may be Particulate Matter concerns during construction and operation activities as well. These are discussed in greater detail in Section 3 and Section 4. Operating the proposed Facility could create regulated air emissions. Air quality impacts are discussed in Section 4 of this document.

- **Solid and Hazardous Wastes:** materials to be used, stored, recycled, or disposed

During the construction on the Facility hazardous wastes might be generated that would require proper treatment and/or disposal. Additional hazardous wastes could be generated if a spill of fuel, lubricants, or construction-related chemicals were to occur. Liquid wastewater discharges are anticipated as a result of the construction activities. Operating the proposed Facility would create solid and hazardous wastes. Impacts related to solid and hazardous wastes are discussed in Section 4 of this document.

- **Biological Resources:** threatened and endangered species, wetlands, floodplains, and vegetation

No species of plants or animals listed as threatened or endangered are known to occur on Hill AFB (Hill AFB 2005a; Hill AFB 2005b). There are no wetlands or floodplains in the vicinity of the proposed action. The vegetation located at the

proposed site would be disturbed by the construction activities and noxious weeds could be introduced.

Impacts related to vegetation are discussed in Section 4 of this document.

- **Geology and Surface Soils:** known pre-existing contamination, seismicity, topography, minerals, geothermal resources

The proposed site for the Facility is currently vacant. Excavations would be necessary to construct the building (footings, drain lines, and miscellaneous cables, conduit, and pipes) and parking areas. Contamination of shallow soil is not known to exist in the vicinity of the proposed action (Hill AFB, 2001).

The scoping discussions did not identify any issues related to seismicity, topography, minerals, or geothermal resources.

- **Water Quality:** known pre-existing contamination, quantity, wellhead protection zones, drainage

No surface water resources exist within the immediate area of the proposed action. Contamination of groundwater is not known to exist within the area of the proposed action (Hill AFB, 2001). Since the proposed action would not require excavations deeper than 10 feet below ground surface (Hill AFB, 2008), no groundwater impacts were identified in relation to the proposed action. Drainage impacts will be discussed in Section 4 of this document.

The scoping discussion did not identify any issues related to quantity of water or wellhead protection zones.

- **Occupational Safety and Health:** physical and chemical hazards, radiation, explosives, bird and wildlife hazards to aircraft

Hazardous materials that could be disturbed during construction are included in the discussion related to solid and hazardous wastes (Section 4 of this document).

The Bio-environmental Engineering Flight (75 AMDS/SGPB) at Hill AFB is responsible for implementing Air Force occupational safety and health (AFOSH) standards. Some of the programs addressed by AFOSH include:

- Hazard abatement
- Hazard communication
- Training
- Personal protective equipment and other controls to ensure that occupational exposures to hazardous agents do not adversely affect health and safety
- Acquisition of new systems

The scoping discussion did not identify any issues related to occupational safety and health that would not be routinely addressed by the Bio-engineering Flight.

- **AICUZ:** noise, accident potential, airfield encroachment

The proposed site is just outside of the 75 A-weighted decibel (dBA) noise level zone (documented in the current version of the Hill AFB AICUZ report). The primary source is external jet noise from the Hill AFB runway. At this noise level, appropriate noise reduction must be assured, based on the specific activities to be conducted at the Facility. The external jet noise would be addressed by incorporating noise level reduction measure into the Facility design, in compliance with the Uniform Building Code (UBC) Chapter 35, and the current version of the Hill AFB AICUZ report. Since noise mitigation measure would be provided by design engineers through structural controls, noise impacts will not be addressed in a detailed fashion in this document.

Noise impacts will be discussed in Section 4 of this document.

The scoping discussion did not identify any issues related to aircraft accident potential or airfield encroachment.

- **Land Use:** existing land use at proposed site, existing land use surrounding proposed site

The proposed site is currently within the explosive clear zone, but outside of the Missile Assembly, Maintenance and Storage Area (MAMS). The MAMS fence would be shifted south to include the proposed facility. It is located in an area that is designated as light industrial. (Thompson, 2008)

The scoping discussion did not identify any issues related to land use.

- **Cultural Resources:** archeological, architectural, traditional cultural properties

No significant cultural resources have been identified in the Area of Potential Effect (APE) for the proposed action. Therefore, the USAF has excluded cultural resources from detailed analysis. Three previous inventories were conducted on Hill AFB in 1991, 1995, and 2001, comprising 840 acres total. This has resulted in the survey of 12.5 percent of the total area of Hill AFB. Results from these projects included the recordation of one historic refuse dump and two prehistoric isolates, all determined ineligible for listing in the National Register of Historic Places. None of the previous inventories fall within the APE of the current project. Given the lack of previous findings and the extensive development and disturbance of Hill AFB, the potential for historic properties is extremely low. However if any are found during construction, ground-disturbing activities in the immediate vicinity will cease, the Hill AFB Cultural Resources Program will be notified, and the unanticipated discovery of archaeological deposits procedures shall be implemented with direction from Hill AFB Cultural Resources Program and in accordance with the Hill AFB Integrated Cultural Resources Management Plan. The Utah State Historic Preservation Office (SHPO) concurred with a finding of no effect after reviewing the proposed action (**Appendix A**). Hill AFB has determined formal consultation with American Indian Tribes is not warranted given the absence of resources that may be reasonably construed as being of interest to them. (Hirschi, 2008).

The scoping discussion did not identify any issues related to cultural resources.

- **Socioeconomic Resources:** local fiscal impacts including employment; population projects; schools

Short-term opportunities, during design and construction of the new facility, would exist for local construction workers. The scoping discussions did not identify any issues related to population projections or schools. Impacts related to socioeconomics are discussed in Section 4 of this document.

1.6 Issues Carried Forward for Detailed Analysis

The issues that have been identified for detailed consideration, based on the analysis in Section 1.5 and scoping discussions, are presented in Sections 3 and 4, and are listed below:

- Air quality
- Solid and hazardous wastes
- Vegetation
- Water quality (drainage)
- Noise
- Socioeconomics

1.7 Applicable Regulations and Permits

The following federal, state, and local regulations and permits would apply to the proposed action:

- National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.*, 1969
- Council on Environmental Quality (CEQ) regulations, 40 C.F.R. Parts 1500-1508
- USAF-specific requirements contained in Title 32 of the Code of Federal Regulations (CFR) Part 989, EIAP
- Safety guidelines of the Occupational Safety and Health Administration (OSHA) including the Occupational Safety and Health Act of 1970, 29 U.S.C. 651 *et seq.*
- Relevant AFOSH standards including *Air Force Instruction 91-301*
- Utah's fugitive emissions and fugitive dust rules (Utah Administrative Code [UAC] Section R307-309)
- Utah's State Implementation Plan (UAC Section R307 -110), which complies with the General Conformity Rule of the Clean Air Act (CAA), Section 176 (c)
- *Determining Conformity of Federal Actions to State or Federal Implementation Plans*, 40 CFR 93.154
- The Hill AFB Title V Operating Permit (Permit Number: 1100007001)
- The Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chapter 82, and regulations promulgated there under, 40 C.F.R. Part 260 *et seq.*

- A federal facility agreement under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. 9601 *et seq.* will be required
- Utah hazardous waste management regulations contained in U.A.C. Section R315, and the *Hill AFB Hazardous Waste Management Plan* (CEVC, 2007)
- The industrial pretreatment permit will need to be verified to make certain that the effluent is consistent with what Hill AFB can handle and is within permit limits.
- The Clean Water Act (CWA), 33 U.S.C. 1251 *et seq.*, would need to be followed and a Utah Pollutant Discharge Elimination System (UPDES) Permit will be needed
- *Air Force Manual (AFMAN) 91-201 – Explosives Safety Standards*, implements the specific guidance necessary to meet the objectives of *AFPD 91-2 – Safety Programs* and *DoD 6055.9-Std. – DoD Ammunition and Explosives Safety Standards*

1.8 Scope and Organization of this Document

The scope of this EA is to discuss resources that would be potentially impacted by the proposed action. The remainder of this document is organized as follows:

- **Section 2 – Alternatives:** Description and evaluation of the Proposed Action Alternative 1, and the No-Action Alternative
- **Section 3 – Affected Environment:** Discussed the existing conditions and environmental resources in the area to be affected by the alternatives
- **Section 4 – Environmental Consequences:** Contains the basis for the comparison of the environmental consequences of each of the alternatives
- **Section 5 – List of Preparers:** A list of preparers and their responsibilities
- **Section 6 – Persons and Agencies Consulted:** A list of agencies and persons contacted during the preparation of this EA, including the topic of consultation and date contacted
- **Section 7 – References:** References used in preparation of this EA
- **Appendix A – Cultural Resources:** SHPO Concurrence on Finding of No Effect
- **Appendix B – Response to Comments:** Response to comments on Proposed Final EA
- **Appendix C – Summary of Regulated Liquid Wastes:** Summary table of the regulated liquid waste streams that would be generated at the Facility

2.0 ALTERNATIVES INCLUDING THE PROPOSED ACTION

2.1 Introduction

This section describes the Proposed Action and alternative actions that have been considered by the USAF for the construction of the proposed Facility. The Proposed Action, Alternative 1, and the No-Action Alternative are described in greater detail in this chapter. The selection criteria used to compare each alternative action is also described. A discussion of the environmental consequences of each action is presented in Section 4.

2.2 Selection Criteria

Based on the specific requirements for the Facility, a viable location for the building must be able to accommodate the following criteria:

1. Location needs to be close to or within the current MAMS I area, but outside of the Quantity Distance (QD) arcs, for better usage of fuel and personnel resources;
2. Antiterrorism and Force Protection (AT/FP) requirements must be achieved around the building location;
3. Location has to be large enough to accommodate POV (100 spaces) and GOV (25 spaces) parking;
4. The building should be located in an industrial area;
5. The building must also allow workers to efficiently complete their assigned workload; and
6. The building must incorporate all required technologies; provide security measures for the various maintenance and munitions programs; and be protective of facilities, human health and the environment.

2.3 Alternatives Considered but Eliminated from Further Consideration

2.3.1 Alternative 1 – Construct the Proposed Facility within Hill Air Force Base Boundaries at another Location other Than the Garland Way Location

Alternative 1 involves constructing the proposed facility in another location within Hill AFB boundaries. There were no other areas located on Hill AFB that could accommodate the construction of the new Facility that would meet the requirements. The areas that were considered were either too small to construct the Facility, or they were too far from the MAMS area. The building needs to be constructed either within the current MAMS area, or close to it. Therefore, evaluation of another Base location for construction of the facility has been dismissed from further consideration.

2.3.2 Alternative 2 – Renovate another Facility within Hill Air Force Base Boundaries

Alternative 2 involves renovating an existing building within Hill AFB boundaries. No other buildings were identified within the boundaries of Hill AFB that could accommodate this workload, either in its current condition or after being renovated. This alternative was eliminated because there were no buildings in the MAMS area, or close to it, which were large enough for the proposed Facility. The space requirement for the proposed Facility and the parking for the Facility eliminated many buildings and areas. Therefore, evaluation of using another Base building after renovation has been dismissed from further consideration.

2.4 Description of the No-Action Alternative

Under the No-Action Alternative, the Munitions Maintenance Facility would not be constructed. The Munitions Flight's ability to meet the demands of future munitions operations would be severely limited. The ability to perform effective munitions support and equipment maintenance would continue to be in violation of regulatory requirements potentially resulting in mission support degradation. Problems would continue to increase due to the separation of personnel in several buildings. Some supervisors for specific tasks are located in one building, while the personnel doing the specific tasks are located in another building. This makes supervisory, administrative, and task work difficult. Personnel would still be required to perform non-explosive operations in explosive operating locations. Safety and security would continue to be compromised. The No-Action Alternative will still be analyzed within this document to give a basis of comparison for the Proposed Action.

2.5 Detailed Description of the Proposed Action

Construction of the Proposed Action would consist of approximately 4.6 acres of vacant property located northeast of the north end of Garland Way, just west of water tanks 10927A and 10927B (**Figure 3-2**). The MAMS area fence would be extended to include the proposed building. POV (100 spaces) and GOV (25 spaces) parking would be available. The Facility would have areas for maintenance and administration (including offices and control room), training, storage, back-up power supply, equipment bays, and equipment wash rack (located outside of the Facility), sand blast booth, and a paint booth. The Facility would be approximately 25,500 square feet and the parking areas would total approximately 50,000 square feet.

The maintenance area would be used to repair and maintain trailers which transport munitions assets, the training areas would be used to train wartime core task competencies. No munitions will be maintained nor located in the building (inert munitions representing parent weapon would be used). No vehicles will be maintained in the building; only trailers will be maintained in the building. Vehicles will drive through the building to deliver the trailers and equipment.

Hazardous chemicals (paints, hydraulic fluid, etc.) will be located in the Hazardous Supply Storage Room. Paints will be stored in the building; mixed in the building, and be applied to the trailers in the building. A crane, with a hook 22 feet above the floor, would be required in the Equipment Maintenance area. Dedicated communications and secure

data lines would be required for the building. There would be an oil/water separator on the site for the wash rack and floor drain in the maintenance area.

This building would be constructed using sustainable design. To meet sustainable design requirements as set forth by *Executive Order (EO) 13123, Greening the Government Through Efficient Energy Management*, and *EO 12873, Federal Acquisition, Recycling, and Waste Prevention*, an interdisciplinary team approach would be taken, especially with the architect and electrical engineer, to evaluate the possibility of incorporating features such as day lighting, high performance glazing, occupancy sensors, efficient lighting, variable speed drives, hot water pre-heating, high efficiency equipment, control strategies, etc. The goal is to optimize and reduce energy consumption beyond the levels set by the Department of Energy (DOE), *10 CFR 435*, and/or *American Society of Heating Refrigerating and Air-Conditioning Engineers, Inc. /Illuminating Engineering Society of North America (ASHRAE/IESNA Standard 90.1-1999)*.

2.6 Comparison Matrix of Environmental Effects of the Proposed Action and the No-Action Alternative

A summary of the environmental effects of the Proposed and No-Action alternatives is presented in Table 2-1.

TABLE 2-1 Comparison of Alternatives

Resource Category	Proposed Action	No-Action
Air Quality	Temporary construction-related emissions. Air impacts from the use of the Facility and the operations inside fall within the limits prescribed by the Hill AFB Title V permit.	Current conditions would continue
Solid and Hazardous Wastes	Solid and liquid wastes containing regulated products would all be properly stored, transported, disposed, and/or re-used or recycled.	Current conditions would continue
Biological Resources Vegetation	Removal of grass/weed vegetation on site (possible invasion of noxious weeds from construction activities).	Current conditions would continue
Water Resources Surface water (drainage)	Roof and paved areas will be drained via sheet flow to on-site drainage facilities. Any storm water not collected on-site would flow towards Pond #5	Current conditions would continue

Resource Category	Proposed Action	No-Action
Noise	Temporary construction-related noise would occur. There would not be any continuing noise impacts as the Facility would be constructed with noise-attenuation and addition of the maintenance activities would not significantly contribute to the ambient outside noise levels.	Current conditions would continue
Socioeconomic	<p>Short-term (temporary) opportunities would exist for local civilian design and construction workers.</p> <p>In the long-term (life of Munitions Flight Operations in building) approximately 94 military personnel would work in the building, and the remaining 138 would report to supervisors in Facility.</p> <p>High utility and maintenance costs (for upkeep and operations of older facilities) would not continue to be paid by Hill AFB.</p>	Hill AFB could incur high maintenance and repair costs for existing facilities, exceeding new construction costs

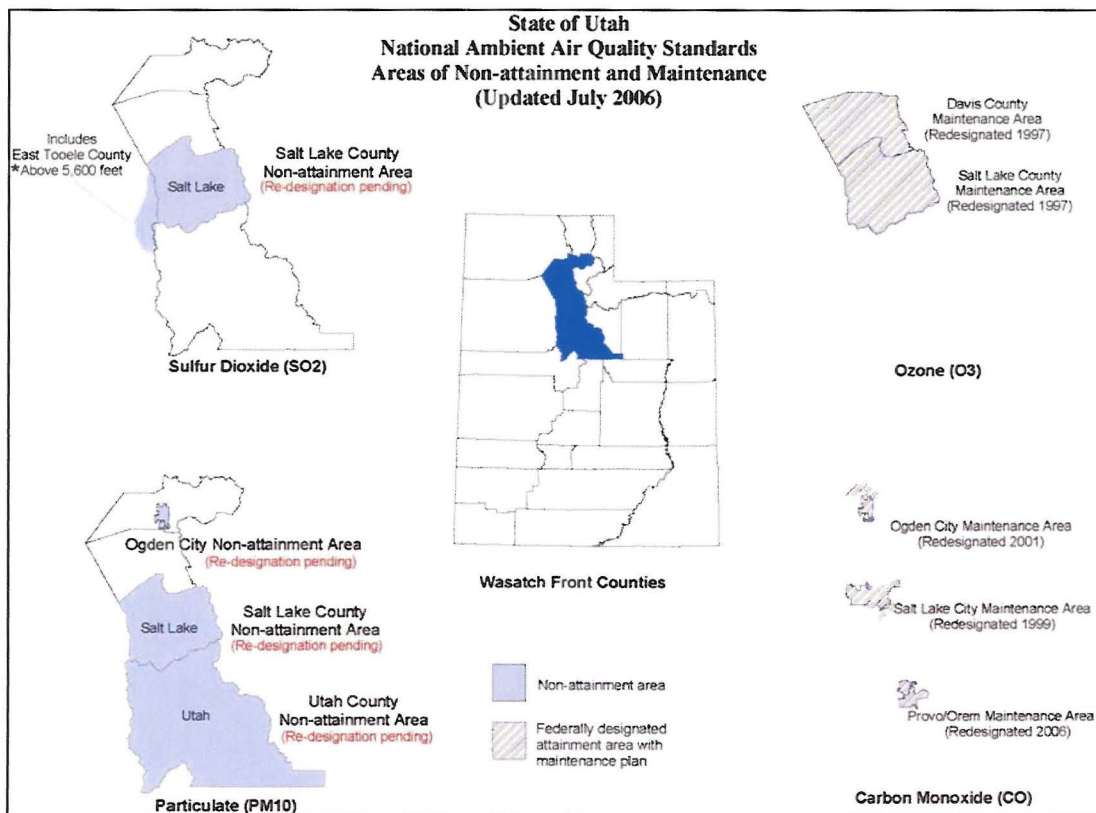
3.0 AFFECTED ENVIRONMENT

3.1 Introduction

The existing conditions in the area to be affected by the Proposed Action are described in this section. Section 1.6 identified six resource categories that will be carried forward in this evaluation. A discussion of the existing conditions of the six affected resource categories follows.

3.2 Air Quality

Hill AFB is located within both Davis and Weber Counties, Utah. Neither county is in complete attainment status with federal clean air standards (**Figure 3-1**). Nonattainment areas fail to meet National Ambient Air Quality Standards (NAAQS) for one or more of the criteria pollutants: oxides of nitrogen (NO_x), sulfur dioxide (SO_2), ozone (O_3), particulates less than 10 microns in diameter (PM_{10}), particulates less than 2.5 microns in diameter ($\text{PM}_{2.5}$), carbon monoxide (CO), and lead. Davis County is designated by the U.S. Environmental Protection Agency (EPA) as a maintenance area for ozone and an attainment area for all other NAAQS. Ogden City, in Weber County (approximately seven miles north of the proposed action), is designated as a non-attainment area for PM_{10} and a maintenance area for CO . These designations are current as of July 2006



(DAQ, 2008).

According to a memo dated January 9, 2008, from the Utah Department of Environmental Quality, Davis County and the western half of Weber County have been recommended as nonattainment areas for PM-2.5 (UDEQ, 2008). This recommendation has not been finalized at this time. The EPA will make the final determination by the end of 2008.

The current air quality trend at Hill AFB is one of controlling emissions as Hill AFB managers implement programs to eliminate ozone-depleting substances, limit use of volatile organic compounds (VOCs), switch to lower vapor pressure solvents and aircraft fuel, convert internal combustion engines from gasoline and diesel to natural gas, and improve the capture of particulates during painting and abrasive blasting operations (in compliance with the base's Title V air quality permit).

3.3 Solid and Hazardous Wastes

In general, hazardous wastes include substances that may pose substantial danger to public health or welfare, and to the environment when released into the environment or otherwise improperly managed. Potentially hazardous wastes generated at Hill AFB are managed as specified in the *Hill AFB Hazardous Waste Management Plan* with oversight by personnel from the Environmental Management Directorate and the Defense Reutilization and Marketing Office (DRMO). Hazardous wastes at Hill AFB are properly stored during characterization, and then manifested and transported off site for treatment and/or disposal.

3.4 Vegetation

Hill AFB is located in a geographic region that would typically support a mountain-brush type native plant community. Dominant vegetation in this plant community includes scrub oak (*Quercus gambelii*), big sagebrush (*Artemisia tridentata*), rabbit brush (*Chrysothamnus* sp.), and western wheatgrass (*Agropyron smithii*). However, much of Hill AFB, including the proposed site, has been developed or disturbed by other activities, and the area is populated by introduced species. Only a small remnant of the native plant community occurs in the northern portion of Hill AFB. Currently, no endangered vegetative species have been identified at Hill AFB.

3.5 Water Quality - Drainage

The Davis-Weber Canal, a privately owned irrigation canal, bounds the northern and northeastern perimeter of the Base. Stormwater retention ponds are located throughout the Base. The proposed site stormwater currently flows west towards Pond 5, which is located approximately 1880 feet to the west (See **Figure 3-2**). Pond 5 is located downgradient from the subject property; therefore stormwater from the subject property which has not percolated into the ground, or which has not entered the site drainage system, would most likely navigate towards Pond 5. There are no surface water bodies in the immediate vicinity of the subject property.



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3.6 Noise

Hill AFB supports aircraft and logistical operations. In routine daily operations, there is noise from aircraft traffic, large transportation vehicular traffic, maintenance activities, logistical activities, and supporting operations. The proposed facility would be constructed in a noise contour 65-70 dB area (Hill AFB, 2008a). There is currently light industrial activity in the area which is not creating additional noise pressure, **Figure 3-3**. The Air Force Occupational and Environmental Safety, Fire Protection, and Health Program (AFOSH) recommend that a working environment with sound levels above 60 dB is unsatisfactory.



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3.7 Socioeconomics

Hill AFB, located in both Davis and Weber Counties, employs over 23,000 people (Hill AFB, 2007). The 2006 combined employed workforce of Davis and Weber Counties was approximately 249,000 (Davis 2007, Weber, 2007).

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Introduction

This section is organized by resource impacts. All resource impacts from each alternative appear under the discussion for that resource.

4.2 Air Quality

4.2.1 Impacts of the Proposed Action

4.2.1.1 Direct Impacts of Construction

- **Fugitive Dust:** The proposed excavation due to construction of the Facility would be limited to the location of the proposed Facility for footings and utilities. During the excavation activities the soil would be kept moist limiting fugitive dust emission. Connection to an existing sewer line would require approximately 1,600 feet of 6 inch line to be constructed. A Fugitive Dust Control Plan must be submitted to the Utah Department of Air Quality within 30 days following the start of construction.
- **Heavy Equipment:** The internal combustion engines of heavy equipment would generate emissions of VOCs, CO, NO_x, PM-10, PM-2.5, hazardous air pollutants (HAPs), and oxides of sulfur (SO_x). Measures would be taken to only run heavy equipment when needed and to not idle the equipment for long periods of time, thus decreasing some of the emissions.
- **HAPs and VOCs:** HAPs and VOCs would be released to the atmosphere from epoxy-based concrete sealant and/or from paint. For architectural coatings (painting walls, coating concrete floors), no air quality notifications to the state or permitting activities are required.

This project would require approximately two years to complete, including Facility design and construction.

4.2.1.2 Direct Impacts of Operations

Based on interviews with Hill AFB facility engineers and conservative assumptions related to future workloads, several sources of air emissions from operating the proposed Facility were identified.

- **Fugitive Dust:** One sand blasting unit would be installed in a 305 sf bay. The bay would likely be equipped with a vacuum system to pick up residue. The sand blasting booth would likely be internally vented with high-efficiency particulate air (HEPA) filters to trap the dust being created in the blasting room. For this process, no air quality permit updates are anticipated.
- **Wash Rack:** The wash rack would be located outside near the Munitions Support Equipment Maintenance (MSEM) Bay. There would be no explosive residue on the trailers when they enter the wash area. There would likely be brake dust from the oil brakes that would be washed off the trailers. Before the

wash rack could be used, an update to the Hill AFB Title V Permit would be required.

- **Painting:** A paint booth would be installed within the MSEM Bay with a paint spray system. Before the paint booth could be used, an update to the Hill AFB Title V permit would be required. The paint not being used in the paint booth for the current maintenance activity would be stored outside of the building in a hazardous material shed. The Facility is expected to use approximately 480 gallons of paint per year.

For operating the proposed facilities, Hill AFB air quality managers would submit a notification of intent (NOI) to Department of Air Quality (DAQ) related to any activities for which a permit modification or modification to an approval order would be required. Hill AFB would not be allowed to operate the new facilities until DAQ concurs that federal and state requirements are being met. Following this existing Hill AFB process would ensure conformity with the CAA by virtue of complying with Utah's SIP.

4.2.2 Impacts of the No-Action Alternative

4.2.2.1 Direct Impacts of Construction

There would be no construction, and therefore, no construction-related air quality impacts associated with the No-Action Alternative.

4.2.2.2 Direct Impacts of Operation

With respect to ongoing air emission, current conditions would continue under the No-Action Alternative (see Section 3.2).

4.2.3 Indirect Impacts

During scoping and detailed analysis, no indirect impacts related to air quality were identified for either the Proposed Action or the No-Action Alternative.

4.2.4 Cumulative Impacts

"Cumulative impact is 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." (40 C.F.R. 1508.7)

Each cumulative impact discussion within Section 4 may have different impact areas based on the resource being analyzed. Each section will state what the boundary of the impact area is.

The cumulative impact study area for air quality is the boundary of Hill AFB.

Current projects on Hill AFB include: the Consolidate Missile Storage Facilities – MAMS 1 area; F/A22 Overhaul & Testing Facility, East side; Armament Overhaul Facility, East side; and the Hydraulic Flight Control Facility, East side maintenance facilities area (adjacent to Building 503).

The reasonably foreseeable actions include: Hydrant Fuel System East Area Fuel Area; Wing Support Facility near Building 15; Aircraft Power Systems Repair Facility, East area across the street from Building 503 for BRAC (Base Realignment and Closure), Engine Consolidated Intermediate Repair Facility (CIRF) 388th area; BRAC Renovate LANTIRN CIRF Buildings 584 and 578; and the West Side Development.

- **Construction:** Construction activities can cause fugitive dust. This dust can be caused during earth moving activities, or it can be caused when winds blow soil on stock piles or other areas. Fugitive dust caused by construction activities is temporary and would dissipate once construction is completed for the day. With many projects currently under construction at Hill AFB and several planned there may be periods when the dust is significant, it should still dissipate once construction activities are completed. The dust could cause minor irritation to those who are sensitive to dust or lowered air quality.
- **Operations:** Hill AFB air quality managers would ensure that long-term operation of the Proposed Action complies with Hill AFB Title V Permit; any relevant approval orders; and the Utah SIP. Any required air quality control devices would be installed and tested prior to allowing newly installed equipment to begin operating. These same measures will be taken with the current projects and the reasonably foreseeable projects on Hill AFB. The cumulative impacts from these projects should not increase air emissions, from the Base, to a level that is unacceptable and Hill AFB will operate within their air permit requirements. There would be no predicted cumulative impacts to air quality associated with operating the proposed Facility and operations of all of the other facilities located on the base.

4.3 Solid and Hazardous Wastes

4.3.1 Impacts of the Proposed Action

4.3.1.1 Direct Impacts of Construction

- **Waste Generation:** During the proposed construction activities, concrete and other construction debris would be generated and managed as non-hazardous solid waste. It is possible that equipment failure or a spill of fuel, lubricants, or construction-related chemicals could create hazardous wastes. In the event of a spill of regulated materials, Hill AFB would comply with all federal, state, and local spill reporting requirements.
- **Waste Management:** Hill AFB personnel have specified procedures for handling construction-related solid and hazardous wastes in their engineering construction specifications. The procedures are stated in *Section 01000, General Requirements, Part 1, General, Section 1.24, Environmental Protection* (Hill AFB). All solid non-hazardous waste is routinely collected and disposed. The specific waste streams of uncontaminated wood, concrete, and asphalt are placed in the Hill AFB construction debris landfill. Samples from suspect wastes (such as rags from cleaning surfaces) are analyzed for hazardous vs. non-hazardous determination. The suspect waste is safely stored while analytical results are pending. Hazardous wastes are stored at sites operated in accordance with the requirements of 40 CFR 265. The regulations require the generator to characterize hazardous wastes with analyses or process

knowledge. Hazardous wastes are labeled, transported, treated, and disposed in accordance with federal and state regulations.

- **Excavated Soils:** There could be excess soil generated as a result of installing footings for the buildings and to stabilize various pieces of equipment; industrial drain lines; and miscellaneous cables, conduit, and pipes. Excavated surface soils would be managed according to Hill AFB policy, and no soil leaves the base without approval from Hill AFB environmental managers. The soils at the proposed site are not likely contaminated, but the precautionary measures would be taken.
- **Liquids:** Any liquids generated by wet concrete cutting activities or by cleaning surfaces during construction would be routed to and treated by the Hill AFB industrial wastewater treatment plant (IWTP).

4.3.1.2 Direct Impacts of Operations

- **Containment:** The proposed construction of the Facility would provide proper secondary containment and security controls for chemicals storage areas; waste accumulation points; and any area where hazardous liquids would be present (e.g., surrounding the wash rack). A floor drain with oil/water separator would be installed in the wash rack area, which would also be connected to the drains located in the trailer maintenance area.
- **Non-Regulated Wastes:** Operating the proposed Facility would generate the following non-hazardous solid waste streams: aluminum; paper; and HEPA filters used to collect particles from only these materials. These items would be disposed as non-hazardous solid waste. Recycling opportunities are likely to exist for aluminum. HEPA filters used to filter hazardous material would be disposed of with the regulated materials.
- **Regulated Solid Wastes:** Operating the proposed Facility would generate the following regulated solid waste streams: paper wipes; masking tape; rags; filters from the washing rack; bearing grease from the crane and trailers; and HEPA filters used with the sand blasting booth that removes paint. Most dirty rags on Hill AFB can be laundered and used again; the remaining rags are collected and disposed as hazardous waste. All non-recyclable items would be collected and disposed as hazardous waste.
- **Regulated Liquid Wastes:** Operating the proposed Facility would generate waste water from the wash rack and the trailer maintenance area. An oil/water separator would be installed which would collect drainage from the wash rack and trailer maintenance areas. This waste water would be a regulated liquid waste stream, and would drain directly to and be treated by the Hill AFB IWTP. The oil/grit will be periodically pumped and properly disposed.

Operating the proposed Facility would generate liquid waste streams from regulated liquids that would be collected in containers, labeled, and transported off Base to be treated, and/or disposed in accordance with federal and state regulations. Refer to **Appendix C** for a table summarizing liquid waste streams and amounts used per year.

Operating the proposed Facility would generate used motor oil for which recycling opportunities are likely to exist. Any oil not meeting recycling criteria

would be collected in containers, labeled, and transported off base to be treated, and/or disposed in accordance with federal and state regulations.

All of the repair and maintenance activities within the new Facility that would create regulated wastes (e.g., sand blasting; painting; lubricants) would comply with EPA and Utah regulations, and with the Base's relevant permits (RCRA Part B permit, industrial pretreatment permit). There would also be an oil/water separator located in the wash rack area outside of the building to make sure that no contaminated water enters the water drainage systems.

4.3.2 Impacts of the No–Action Alternative

4.3.2.1 Direct Impacts of Construction

There would be no construction of a new facility, and therefore, no construction-related impacts to solid and hazardous wastes associated with the No-Action Alternative.

4.3.2.2 Direct Impacts of Operations

With respect to solid and hazardous wastes, current conditions would continue under the No-Action Alternative (see Section 3.3).

4.3.3 Indirect Impacts

During scoping and the detailed analysis, no indirect impacts related to solid and hazardous wastes were identified for either the Proposed Action or the No-Action Alternative.

4.3.4 Cumulative Impacts

The cumulative impact area for solid and hazardous wastes is Weber and Davis Counties. This area was used so that a brief discussion of transportation of materials off Base could be had.

Proper handling of solid and hazardous wastes during construction and operations would decrease the chance of releases of contaminants from Hill AFB to the environment. Proper handling of materials at all current and future facilities (Section 4.2.4) would also help reduce releases to the environment. Because hazardous material does travel off base to be disposed of sometimes, there is a chance that a release could happen outside of the Base. Again, proper handling or Best Management Practices (BMPs) would be used to reduce environmental impacts. It is not expected that there would be a release from any of the current or future projects and impacts from past releases are currently being remedied by Hill AFB. The handling and disposal of solid and hazardous waste from Hill AFB will not violate any law or regulation.

There are many companies and facilities operating outside of Hill AFB boundaries within Davis and Weber Counties that create solid and hazardous waste. These companies are also guided by rules and regulations which help to prevent releases. Although a release could occur it is unlikely because of the laws and regulations put in place to prevent this. There should be no significant impact to the environment from solid and hazardous waste.

4.4 Vegetation

4.4.1 Impacts of the Proposed Action

4.4.1.1 Direct Impacts of Construction

Vegetated areas would be disturbed by the Proposed Action. The area of the Proposed Action is currently vacant. Most of the vegetation located at the proposed Facility site is introduced species (i.e. weeds). Measures would be taken during construction to limit the spread of noxious weeds by cleaning construction equipment before it leaves the construction site and by covering undeveloped areas of the site with landscaping, including rock, vegetation, or other material to prevent new invasion of introduced species.

4.4.1.2 Direct Impacts of Operation

The landscaped areas around the proposed Facility need weed control. This control would help to reduce invasion of noxious weeds and would help prevent other landscaped vegetation from becoming overwhelmed by noxious weeds.

Also, by having vegetation planted around the Facility it could have change on the way stormwater is absorbed into the ground. The vegetation should be able to absorb more water during a storm event than the impermeable paved areas would. This would help decrease the flow of stormwater from the site. Even areas which are only landscaped with rock should allow water to be absorbed and help reduce run-off from the site.

4.4.2 Impacts of the No-Action Alternative

4.4.2.1 Direct Impacts of Construction

There would be no construction activity at the proposed site, and therefore, no construction-related impacts to vegetation at the site.

4.4.2.2 Direct Impacts of Operation

With respect to vegetation, current conditions would continue under the No-Action Alternative (see Section 3.4). There may be more invasions of introduced species because they tend to take over any native vegetation in time.

4.4.3 Indirect Impacts

During scoping and analysis of the Proposed Action, no indirect impacts related to vegetation were identified for either the Proposed Action or the No-Action Alternative.

4.4.4 Cumulative Impacts

The cumulative impact area for vegetation impacts is the Hill AFB boundary. Proper handling of construction equipment and excavated soils during construction activities on the Base would reduce the invasion of noxious weeds to the environment. The Base also uses weed control to reduce noxious weeds on the base. Much of the Base is already developed, or the vegetation disturbed in some way.

A few buildings at Hill AFB have started landscaping with native vegetation. It is likely that other new facilities and some of the older facilities will continue adding native vegetation to their landscapes. This will have a positive cumulative impact on vegetation on the Base as it will bring back native species to the area. Cumulative impacts to vegetation would not be significant.

4.5 Water Quality - Drainage

4.5.1 Impacts of the Proposed Action

4.5.1.1 Direct Impacts of Construction

Since the area to be developed and disturbed by construction equipment exceeds one acre, a Notice of Intent for Construction Stormwater Runoff Permit would be obtained as part of the Utah General Stormwater Permit (Permit #UTR100000, Part III D), and a Construction Stormwater Control Plan (CSCP) will be developed and implemented. Implementation of the CSCP will prevent runoff during construction from leaving the subject property and impacting other areas of the base. A Notice of Termination would also be submitted upon construction completion.

4.5.1.2 Direct Impacts of Operation

The increased impermeable surface area created by the parking areas and the building would create a greater area of surface water runoff. Roof and paved areas will be drained via sheet flow to on-site drainage facilities. The surface water runoff from other areas of the proposed Facility site would be collected in Pond 5 if it does not percolate into the ground before reaching the pond. Pond 5 will need to be reviewed for this additional capacity and if needed increased in size to retain the 100 year storm event for its collection area.

4.5.2 Impacts of the No–Action Alternative

4.5.2.1 Direct Impacts of Construction

There would be no construction, and therefore, no construction-related impacts to surface water associated with the No-Action Alternative.

4.5.2.2 Direct Impacts of Operation

Current conditions would continue under the No-Action Alternative and surface water from this location would either navigate down gradient, or would percolate into the ground.

4.5.3 Indirect Impacts

During the scoping and detailed analysis, no indirect impacts related to surface water were identified for either the Proposed Action or the No-Action Alternative.

4.5.4 Cumulative Impacts

The cumulative impact area for surface water – drainage will be the Hill AFB boundary.

There are many current construction projects at Hill AFB, and there are several planned projects as well. Most of the new facilities or renovated facilities will require surface water drainage. All facilities constructed on Hill AFB must comply with Base and State regulations for stormwater run-off. Because these regulations are in place and with the help of proper handling of stormwater run-off during construction operations there should not be any significant cumulative impacts from stormwater run-off on Hill AFB.

4.6 Noise

4.6.1 Impacts of the Proposed Action

4.6.1.1 Direct Impacts of Construction

During construction of the proposed Facility there would be short-term (construction period) increase in noise. Any noise generated during construction activities would be limited to areas immediately adjacent to the site. Any potential health concerns, for site workers or program participants exposed to excessive noise during these activities, would need to be addressed in the health and safety plans for the construction phase of the project.

4.6.1.2 Direct Impacts of Operation

There are no expected noise impacts related to the operation of the Facility. All personnel working within the Facility on noise intensive jobs would use the required hearing protection equipment. All personnel working on noise sensitive jobs would be in an area that was blocked by noise decreasing walls and floors.

4.6.2 Impacts of the No–Action Alternative

4.6.2.1 Direct Impacts of Construction

There would be no construction, and therefore, no construction-related impacts to noise levels with the No-Action Alternative.

4.6.2.2 Direct Impacts of Operation

With respect to noise, current conditions would continue under the No-Action Alternative (see Section 3.6).

4.6.3 Indirect Impacts

During scoping and detailed analysis, no indirect impacts related to noise were identified for either the Proposed Action or the No-Action Alternative.

4.6.4 Cumulative Impacts

The cumulative impact area for noise impacts is the Hill AFB boundary.

Proper use of construction vehicles and proper execution of job requirements would help to reduce noise impacts from Hill AFB on the environment. Operations within the buildings currently being constructed or the facilities planned for construction would include health and safety plans that would include noise reduction. The main source of noise impacts on the Base are the aircraft taking off and landing. Measures to minimize these noise impacts have been taken in the past. This project and the current and proposed future project should not have a significant cumulative impact to noise on Hill AFB.

4.7 Socioeconomics

4.7.1 Impacts of the Proposed Action

4.7.1.1 Direct Impacts of Construction

This project would require at least two years to complete, including Facility design and construction. Short-term opportunities would exist for local construction and design workers.

4.7.1.2 Direct Impacts of Operation

The proposed Facility is expected have 94 personnel working within the building. Most of these jobs are already occupied by Base personnel, they would just move from one of the five buildings which the Munitions Flight currently occupies. In addition to the 94 personnel working full time in the building all 208 to 232 personnel working for the Munitions Flight will transverse through the facility at some point every 24 hours. The benefit of moving 94 of the personnel into one building would be greater productivity and communication. There would also be less expenditure for communications and traveling between the buildings.

4.7.2 Impacts of the No–Action Alternative

4.7.2.1 Direct Impacts of Construction

There would be no construction, and therefore, no construction-related impacts to socioeconomics associated with the No-Action Alternative.

4.7.2.2 Direct Impacts of Operation

With respect to socioeconomics, current trends would continue under the No-Action Alternative (see Section 3.7).

4.7.3 Indirect Impacts

During scoping and the detailed analysis, one indirect impact was identified which was relevant to the No-Action Alternative. Members of the Munitions Flight currently working in the four buildings would continue to work separately; this would create a strain on the

social (management) characteristic of the Munitions Flight, this includes communications, efficiency in work, and efficiency in client support.

No indirect impacts were identified for the Proposed Action.

4.7.4 Cumulative Impacts

The cumulative impact area for Socioeconomics is the counties of Davis and Weber.

Workloads at Hill AFB are increasing and these increases are expected to continue. Employment levels at Hill AFB change on an annual basis depending on funding available to, and decisions made by, USAF headquarters. These increases to the workloads at Hill AFB generally create an increase in employees. Many of these employees live in Davis and Weber Counties. Generally, when people are employed they will spend more money in the communities they live in. Cumulative socioeconomic impacts are therefore expected to be in the positive direction, but are not quantifiable in this document.

4.8 Summary of Direct Impacts from the Proposed Action

The Proposed Action and the No-Action Alternative were both considered in detail. During construction, wastes would all be stored, transported, and disposed properly.

The Proposed Action could be implemented with minor construction-related air emissions and increases in noise of short-term (during construction) duration. Project long-term (Operational life of the Facility) air emissions fall with the limits prescribed by the Hill AFB Title V Permit. There would not be any long-term noise impacts.

The Proposed Action would be expected to produce regulated solid and liquid waste streams. All non-recyclable regulated materials would be collected and disposed as hazardous waste (some of the liquid wastes would be treated in the Hill AFB IWTP).

No significant short-term (during construction of the Facility) or long-term (life of the Facility) environmental impacts are expected from either the Proposed Action or the No-Action Alternative.

5.0 LIST OF PREPARERS

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Environmental Restoration Section, 75 CEG/CEVOR

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7.0 REFERENCES

CEVC, 2007. *Hazardous Waste Management Plan*. Environmental Management Division, Compliance Branch, Hill Air Force Base, Utah. 2007.

DAQ, 2008. *State of Utah National Ambient Air Quality Standards, Areas of Non-attainment and Maintenance (Updated July 2006)*, Utah Division of Air Quality Website, http://www.airquality.utah.gov/images/Maps/NONATTAINMENT_MAP.pdf

Davis, 2007. *Davis County Facts*, Davis County Utah, 2005, <http://jobs.utah.gov/opencms/wi/regions/northern/davis/davisfs.pdf>

Hill AFB. *Construction Specifications, Section 01000, General Requirements, Part 1, General, Section 1.24, Environmental Protection*, Hill AFB, UT, current version.

Hill AFB, 2001. *Final South Area of Operable Unit 9 Site Inspection, Final Comprehensive Data Evaluation*, Hill AFB UT, Contract F42650-97-D-0067, February 2001.

Hill AFB, 2005a. *Land Management* (Web Page), <http://www.em.hill.af.mil/conservation/natural/landm.htm>.

Hill AFB, 2005b. *Fish & Wildlife Management AT Hill Air Force Base* (Web Page), <http://www.em.hill.af.mil/conservation/natural/fishwild.htm>.

Hill AFB, 2007. Hill Air Force Base – 2007 Red Hat Innovator of the Year, taken from webpage at: <http://customers.press.redhat.com/2008/01/10/hill-air-force-base-2007-red-hat-innovator-of-the-year>

Hill AFB, 2008. FY-09 Munitions Maintenance Facility, Customer Concept Document, Spec No. 1542, Project No. KRSM043013, File No. 180-25-840. Prepared by US Army Corps of Engineers, Sacramento District, April 2008.

Hill AFB, 2008a. Noise contours provided by Hill AFB GIS Department.

Hirschi, Jaynie, 2008. Email received May 2008.

Key, Chief Master Sergeant Robert, 2008. Email received May 2008.

Thompson, Russ, 2008. Phone conversation about noise zones and land use within Hill AFB conducted in May 2008.

UDEQ, 2008: Memorandum: Update of Utah Area Designation Recommendations for the 2006 PM-2.5 NAAQS. Prepared by the Utah Department of Environmental Quality for the Air Quality Board on January 9, 2008.

Weber, 2007. *Weber County Facts*, Weber County Utah, 2005, <http://jobs.utah.gov/opencms/wi/regions/northern/weber/weberfs.pdf>

APPENDIX A

**CULTURAL RESOURCES
Package to SHPO
SHPO Concurrence on Finding of No Effect**



DEPARTMENT OF THE AIR FORCE
75TH CIVIL ENGINEER GROUP (AFMC)
HILL AIR FORCE BASE UTAH

4 June 2008

Dr. W. Robert James
Chief, Environmental Management Division
75th CEG/CEV
7274 Wardleigh Road
Hill Air Force Base, Utah 84056-5137

Dr. Matt Seddon
State Historic Preservation Officer
300 Rio Grande
Salt Lake City, Utah 84101

Dear Dr. Seddon

Hill Air Force Base (AFB) is currently proposing to build a Munitions Flight Maintenance Facility on the southwest side of Hill AFB located in Davis County, Utah. The Area of Potential Effect (APE) is 4.8 acres of property (Attachment 1, Area of Potential Effect for Proposed Munitions Flight Maintenance Facility). Currently, the Munitions Flight utilizes four buildings to conduct maintenance, training, and administration. Personnel in the Flight have increased, causing a limitation in their ability to support mission because of the lack of adequate facilities. The geographical separation of facilities restricts the Flight's ability to effectively manage personnel, resources, and operations.

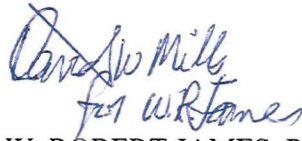
Within Hill AFB, three previous inventories have comprised cultural resources survey of 840 acres (U-91-WC-687m, U-95-WC-280p, and U-01-HL-0164m). Results from these projects include the recordation of one historic refuse dump (42Dv51) and two prehistoric isolates, all determined ineligible for listing in the NRHP. Inventory efforts have resulted in the survey of 12.5 percent of the total area of Hill AFB. None of the previous inventories fall within the APE of the current proposed project.

Building development and associated infrastructure will encompass the entire APE of the current project. Given the lack of previous findings and the extensive development and disturbance of Hill AFB, the potential for archaeological historic properties is extremely low. However, if any archaeological resources are found during construction, ground-disturbing activities in the immediate vicinity will cease, the Hill AFB Cultural Resources Program will be notified, and the unanticipated discovery of archaeological deposits procedures shall be implemented with direction from the Hill AFB Cultural Resources Program and in accordance with the Hill AFB Integrated Cultural Resources Management Plan (Attachment 2, Unanticipated Discovery of Archaeological Deposits).

Therefore, Hill AFB has determined the proposed project will have no effect to historic properties [36 CFR §800.4(d)(1)]. I request your concurrence in these determinations as specified in 36 CFR §800.

An Environmental Assessment has been prepared for the proposed Munitions Flight Maintenance Facility. If you would like a copy of this document to review, or should you or your staff have any questions about the project, please contact our archaeologist, Ms. Jaynie Hirschi, 75th CEG/CEVOR, at (801) 775-6920 or at jaynie.hirschi@hill.af.mil.

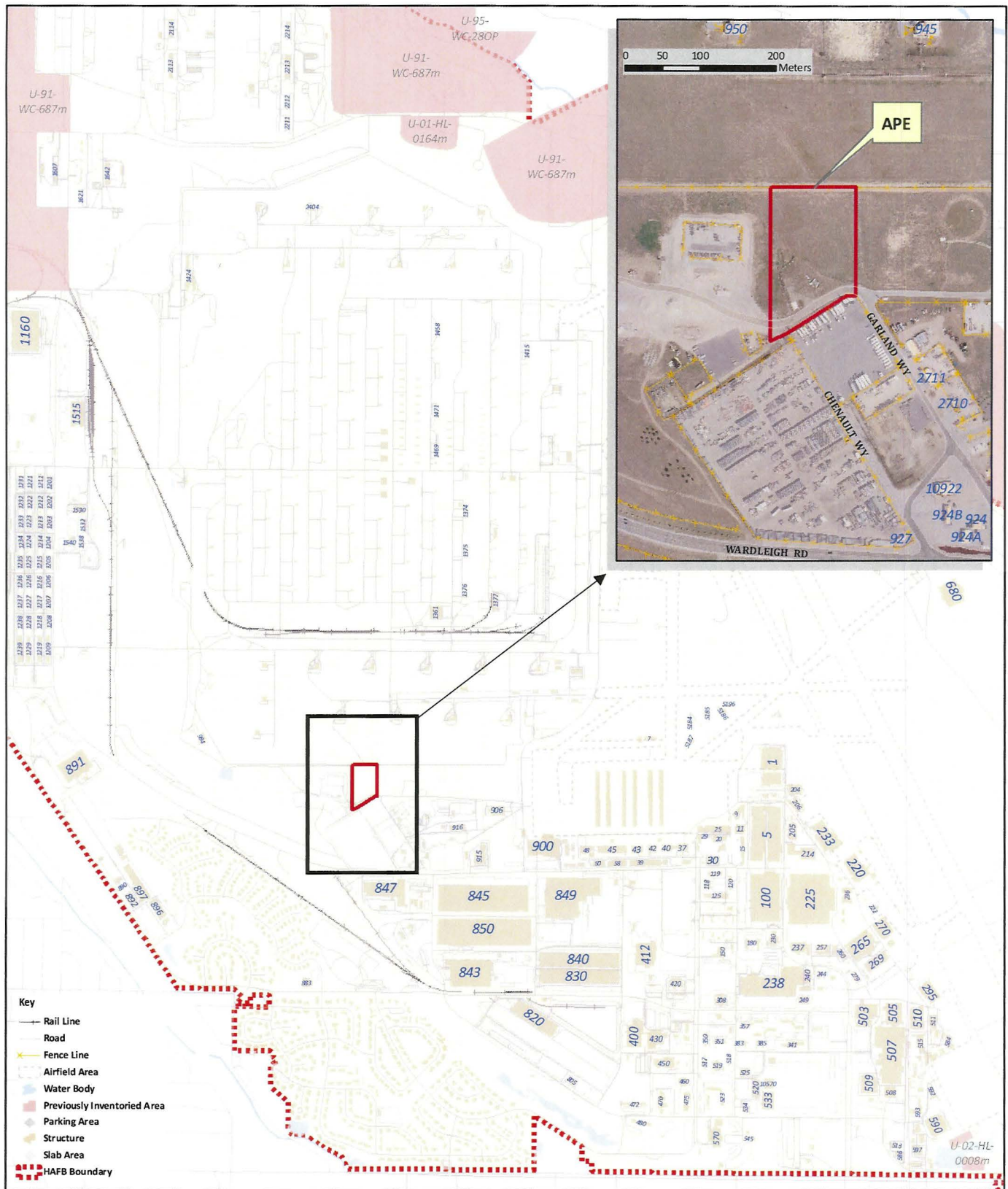
Sincerely

A handwritten signature in blue ink, appearing to read "W. Robert James", with a stylized flourish above it.

W. ROBERT JAMES, Ph.D., P.E.
Chief, Environmental Management Division
75th Civil Engineer Group

Attachments:

1. Area of Potential Effect for Proposed Munitions Flight Maintenance Facility
2. Unanticipated Discovery of Archaeological Deposits



Standard Operating Procedure

UNANTICIPATED DISCOVERY OF ARCHAEOLOGICAL DEPOSITS

APPLICABLE LAWS AND REGULATIONS

- ◆ National Historic Preservation Act
- ◆ National Environmental Policy Act
- ◆ Native American Graves Protection and Repatriation Act
- ◆ AFI 32-7065 (June 2004), *Cultural Resources Management Program*

OVERVIEW

All undertakings that disturb the ground surface have the potential to discover buried and previously unknown archaeological deposits. The accidental discoveries of archaeological deposits during an undertaking can include but are not limited to:

- ◆ Undiscovered/undocumented structural and engineering features; and
- ◆ Undiscovered/undocumented archaeological resources such as foundation remains, burials, artifacts, or other evidence of human occupation.

POLICY

When cultural resources are discovered during the construction of any undertaking or ground-disturbing activities, Hill AFB shall:

- ◆ Evaluate such deposits for NRHP eligibility.
- ◆ Treat the site as potentially eligible and avoid the site insofar as possible until an NRHP eligibility determination is made.
- ◆ Make reasonable efforts to minimize harm to the property until the Section 106 process is completed.
- ◆ **The BHPO will ensure that the provisions of NAGPRA are implemented first if any unanticipated discovery includes human remains, funerary objects, or American Indian sacred objects (see SOP #6).**

PROCEDURE

Step 1: Work shall cease in the area of the discovery (Figure 5-5). Work may continue in other areas.

- ◆ The property is to be treated as eligible and avoided until an eligibility determination is made. Hill AFB will continue to make reasonable efforts to avoid or minimize harm to

Further construction activities in the vicinity of the site will be suspended until an agreed-upon testing strategy has been carried out and sufficient data have been gathered to allow a determination of eligibility. The size of the area in which work should be stopped shall be determined in consultation with the **BHPO**.

the property until the Section 106 process is completed.

Step 2: Immediately following the discovery, the **Project Manager** shall notify the installation **BHPO**.

Step 3: The **BHPO** or a professional archaeologist shall make a field evaluation of the context of the deposit and its probable age and significance, record the findings in writing, and document with appropriate photographs and drawings.

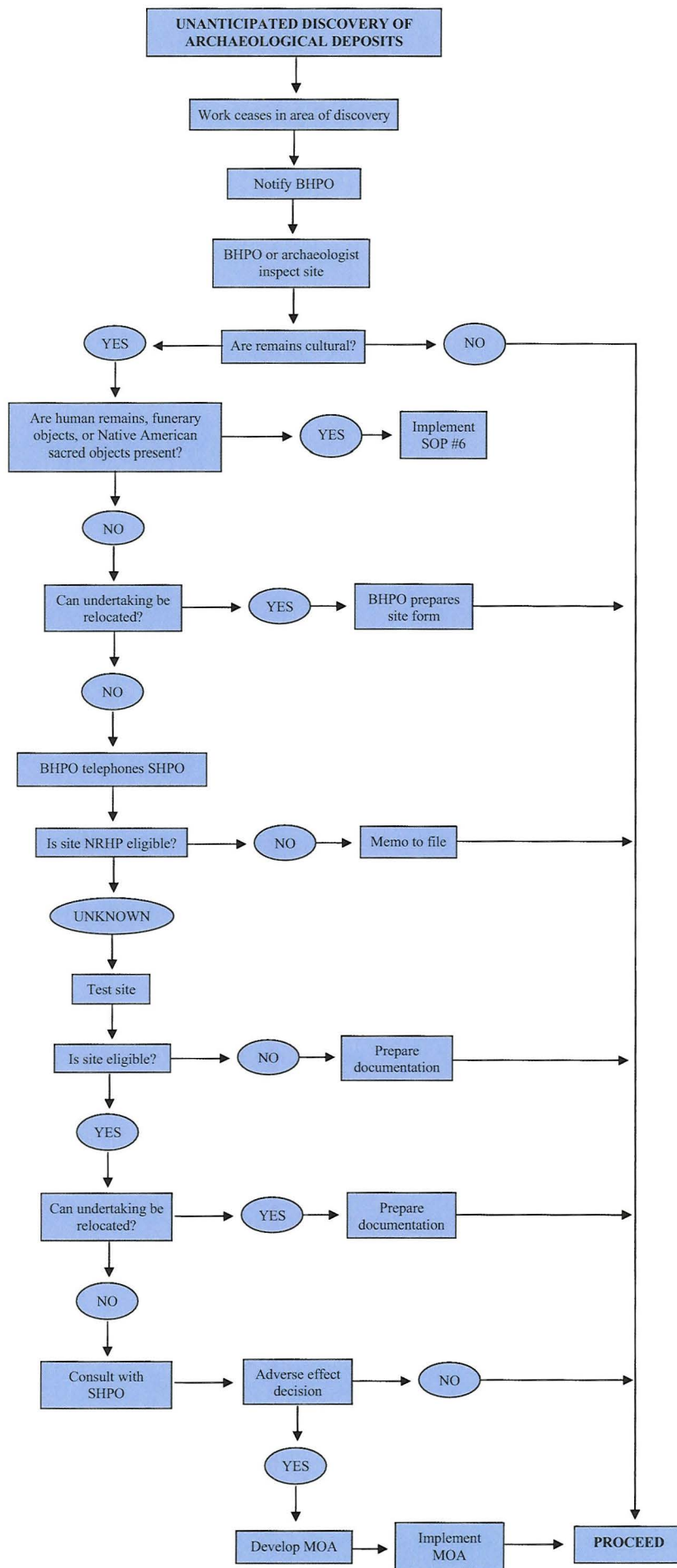
- ◆ If disturbance of the deposits is minimal and the excavation can be relocated to avoid the site, the **BHPO** will file appropriate site forms in a routine manner.
- ◆ If the excavation cannot be relocated, the **BHPO** shall notify the office of the **SHPO** to report the discovery and to initiate an expedited consultation.

The Section 106 review process is initiated at this point.

- ◆ If the deposits are determined to be ineligible for inclusion in the NRHP, then Hill AFB **BHPO** will prepare a memorandum for record and the construction may proceed.
- ◆ If the existing information is inadequate for an NRHP eligibility determination, Hill AFB **BHPO** shall develop an emergency testing plan in coordination with the **SHPO**.

Step 4: Hill AFB shall have qualified personnel conduct test excavations of the deposits to determine NRHP eligibility.

- ◆ Hill AFB **BHPO**, in consultation with the **SHPO**, will determine appropriate methodology for NRHP eligibility determination.
- ◆ If the **SHPO** and Hill AFB agree that the deposits are ineligible for inclusion in the NRHP, then work on the undertaking may proceed.
- ◆ If the deposits appear to be eligible, or Hill AFB and the **SHPO** cannot agree on the question of eligibility, then Hill AFB shall implement alternative actions, depending on the urgency of the proposed action.
 - Hill AFB may relocate the project to avoid the adverse effect.
 - Hill AFB may request the Keeper of the National Register to provide a determination.
 - Hill AFB may proceed with a data recovery plan under a MOA developed in coordination with the **SHPO** and possibly the **ACHP** and interested parties.
 - **Hill AFB may request comments from the ACHP and may develop and implement actions that take into account the effects of the undertaking on the property to the extent feasible and the comments of the SHPO, ACHP, and interested parties. Interim comments must be provided to Hill AFB within 48 hours; final comments must be provided within 30 days.**



Hirschi, Jaynie Civ USAF AFMC 75 CEG/CEVOR

Subject: FW: Hill AFB Munitions Flight Maintenance Facility 106 Case

From: Matthew Seddon [mailto:mseddon@utah.gov]
Sent: Friday, June 06, 2008 1:02 PM
To: Hirschi, Jaynie Civ USAF AFMC 75 CEG/CEVOR
Subject: Re: Hill AFB Munitions Flight Maintenance Facility 106 Case

Jaynie,

We have no objection to your determination.

This letter serves as our comment on the determinations you have made, within the consultation process specified in §36CFR800.4. If you have questions, please contact me at (801) 533-3555 or mseddon@utah.gov.

Sincerely,

Matt Seddon

Matthew T. Seddon, Ph.D., RPA
Deputy State Historic Preservation Officer
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300 Rio Grande St.
Salt Lake City, UT 84101
801-533-3555
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<http://history.utah.gov/>

"Hirschi, Jaynie Civ USAF AFMC 75 CEG/CEVOR"

Jaynie.Hirschi@HILL.af.mil 6/5/2008 10:07 AM

Good morning Matt,

Hill Air Force Base (AFB) is proposing to build a Munitions Flight maintenance facility on Hill AFB property in Davis County, Utah. An Environmental Assessment is currently begin prepared for the project. Attached is a consultation letter, along with location map of the Area of Potential Effect and the Hill AFB Standard Operating Procedure for Unanticipated Discovery of Archaeological Deposits. In consideration of the activities described in the letter, it is our opinion that the proposed project will have no effect to historic properties, and it is recommended that the proposed project proceed. We request your concurrence in this determination as specified in 36 CFR § 800. If you have any question, please contact me. Thank you for your help with this matter.

Jaynie

Jaynie Hirschi
Archaeologist
Hill Air Force Base 75th CEG/CEVOR
(801) 775-6920 (office)
(801) 777-4306 (fax)

APPENDIX B

RESPONSE TO COMMENTS **Response to Public/Agency Comment**

There were no public or agency comments received during the comment period.

APPENDIX C

Summary of Regulated Liquid Wastes

Appendix C: List of Regulated Liquids used at Facility

Name	Amount Used Per Year
Break Free (penetrating fluid like WD-40)	1.5 gallons
PD 680 (or its replacement)	55 gallons
Auto and Artillery Grease	15 gallons
Brake Fluid	100 gallons
Silicone	1 gallon
RTV	0.3 gallon
Denatured Alcohol	12 gallons
Edge Sealer	0.3 gallon
Engine Oil	3 gallon
Epoxy Primer Coating Kits	252 gallons
Polyurethane Coating Kits	250 gallons

Source: Key, 2008