EXECUTIVE SUMMARY

The Air Force has identified a need to provide a visual marker for pilots to easily recognize when they enter over Air Force (AF) controlled land of the Utah Test and Training Range (UTTR). Pilots typically embark on their Mission to the UTTR for testing or training from remote stations, flying across private and public land to reach their intended destination on the range. Because topography does not provide a readily discernable demarcation between AF land and other DoD, public and private land, a visual marker is required. Therefore, the Air Force proposes to establish a no-drop target array. The array will consist of items that can be readily identified from the air as man-made items as opposed to naturally occurring phenomenon. The proposed target array will fulfill multiple functions. It will provide visual verification of location over AF controlled land, assist the pilots with the calibration and focus of equipment prior to performing testing or training missions on the south range, and function as a training aid to pilots, allowing them to practice in a safe environment to develop skills they may need to utilize in a real-world situation.

Air Force instructions require that Environmental Assessments (EAs) be completed for all proposed Air Force actions with the potential for adverse environmental impacts. Under the proposed action, the new target assets would be transported to the proposed location utilizing existing roads, tracks and gates. The target will consist of 3 vehicles, conexes, dumpsters, or other suitable man-made objects that will be readily discernable and identifiable from the air as other than topographical features. The item(s) utilized will be environmentally prepared, containing no oils, fluids, or hazardous material. Three (3) such items will be placed approximately 100 meters apart situated at a 45 degree angle from each other to form a "triangular" sighting target. The items will be placed on top of the existing ground surface and no construction will be involved in placement of the array. Under the no-action alternative, no visual demarcation target array would be available. The no-action result would limit the testing and training opportunities available to the DoD customer.

Section 1 of this report presents the purpose and need for the proposed action. It also includes background information on the proposed action location.

Section 2 describes the proposed action and the alternative actions that were considered. Selection criteria for evaluating reasonable alternatives are also presented in this section.

Section 3 describes the existing environmental conditions at the site of the proposed action.

Section 4 identifies the anticipated environmental impacts of the proposed action and the alternatives.

Section 5 lists the individuals involved in preparing this report.

Section 6 lists persons contacted in preparing this report and Section 7 contains a list of references used in report preparation.

Based on the findings of this EA, the proposed action at Alternative Location 1 is not expected to have any significant adverse environmental impacts. A Finding of No Significant Impact (FONSI) statement has been prepared and is included at the beginning of this report. Preparation of an Environmental Impact Statement (EIS) is not necessary.

FINDING OF NO SIGNIFICANT IMPACT FOR THE PROPOSED NO-DROP TARGET ARRAY AT THE SOUTH RANGE OF THE UTAH TEST AND TRAINING RANGE

Description of the Proposed Action

The proposed action is to establish a no-drop target array in the southwest area of the South Range near the perimeter fence line. The approximate location of the proposed array is N40 26.69 W113 51.80, although the final placement will be made under advisement and coordination with Hill AFB Cultural and Natural Resource Managers.

The proposal is to place 3 vehicles, conexes, dumpsters, or other suitable man-made objects that will be readily discernable and identifiable from the air as other than topographical features. The item(s) utilized will be environmentally prepared, containing no oils, fluids, or hazardous material. The proposal is to place 3 such items approximately 100 meters apart situated at a 45 degree angle from each other to form a "triangular" sighting target. The target will be dual purpose, utilized as a visual marker for pilots entering range boundaries, as well as providing a visual array to calibrate electronic sighting equipment on the aircraft. No actual construction will be involved in placement of the array. The items would be transported along the outside of the perimeter fence line on a dirt track already in existence to the nearest gate and placed approximately 100 meters inside the boundary of the South Range.

The target will not have ordnance of any type directed toward the ground but will be utilized only for sighting/calibration purposes from the air.

Summary of Environmental Impacts of the Proposed Action

Surface Water

Any surface water in the proposed area is present due to rainfall and winter snow-melt. The seasonal water is shallow and evaporates rapidly in the arid desert climate. During the summer months the ground in the area is usually dry, with mud or shallow water present in spring and winter. No permanent surface water is located in the area, with the nearest permanent surface water located at Blue Lake on Utah Division of Wildlife Resources land approximately 12 miles northwest of the proposed location. No significant impacts on surface water are anticipated as a result of the proposed action.

Groundwater

No impacts to groundwater are expected from the proposed action. Groundwater is less than 10 feet deep throughout the extensive salt flats of the Great Salt Lake Desert, around Great Salt Lake, and beneath wet playas, along streams, and near lakes in many of the lowland areas. (Text: Suzanne Hecker, Kimm M. Harty, and Gary E. Christenson, 1988, *Shallow Ground Water and Related Hazards in Utah)* Mr. Marcus Blood, the Hill AFB Natural Resources Manager, has reported a shallow brine aquifer in the proposed area at a depth ranging from 1' to 8'. Most precipitation to the area quickly evaporates.

Soils

Any impacts on soils in the area due to the proposed action would result from transportation of the target assets to the proposed location. Those impacts are anticipated to be very minimal,

consisting of vehicle tracks created by transportation of the assets. Because the target assets will be placed on top of the soil in a location approved by the Hill AFB Cultural and Natural Resource Managers no other ground disturbance is anticipated.

Vegetation
No significant impacts to vegetation are anticipated in the placement of the target array. The only impact might arise from transportation of the assets to the area where they will be placed. The placement location is just within the boundary of the fence line surrounding the South Range. No construction, vegetation or soil removal will be performed. No endangered or threatened species of plants are known to exist in the proposed area.

Wetlands
The proposed action does not affect wetlands. Blue Lake, the closest wetland area, is approximately 12 miles away from the proposed action.

Air Quality
The proposed action would have no significant impact on air quality. Placement of the proposed target array would not produce any significant changes in air emissions at the South Range. The placement of the array is not expected to cause or create any change in the quantity of aircraft currently flying over the area. No testing/training missions are anticipated based solely on the placement of the proposed target array. It will, however, be of great value to pilots flying over the area on previously scheduled missions with destinations at target complexes within the UTTR.

Wildlife
The proposed action would have no adverse impact on wildlife. No federally listed threatened or endangered species reside at the site. No changes to military flight paths (routes and altitude) are anticipated. No changes to military flight paths (routes and altitude) are anticipated.

Cultural Resources
The target array will be placed in a location that has already undergone a cultural resources inventory. Although two eligible sites were identified in the vicinity of the current project area, they are not in the Area of Potential Effect. Prior to transportation and placement of the target array the Hill AFB Archaeologist will be notified and may wish to monitor any ground disturbing activities. Close coordination with the Hill AFB Cultural Resource Office will be maintained during the transportation and placement of the target array.

Land Use
Placement of the no-drop target array is consistent with the current Department of Defense military testing and training operations of the UTTR. The new target array would provide a visual marker to pilots as they fly over the perimeter boundary of the UTTR. The array will also be used by the pilots to calibrate electronic equipment prior to attaining their intended destination testing or training area on the South Range. Therefore, the proposed alternative would increase the capabilities at the South Range and would not adversely impact land use.

Noise
No increased activities are anticipated as a result of the placement of the proposed target array; therefore, no noise impact is anticipated.

Health and Safety
Because the proposed target array is designated as a visual target with no ordnance being directed toward the ground, and because aircraft already routinely fly on the flight path over the proposed target array placement area, no new long-term health and safety hazards are expected from the proposed action.

Transportation
The proposed action would require transportation of the assets for placement in the proposed area. A wheel track currently runs along the inside of the fence line to the area of proposed placement of the target array. This allows transportation of the assets to be accomplished within the AF boundaries. No new road construction will be required, and ground disturbance in the area will be minimal. The proposed activities would not impact the existing transportation at the South Range or the surrounding communities.

Socioeconomics
The proposed action would have no significant adverse impact on the local economy or employment. Training and testing operations at UTTR would utilize the proposed target array. The new target array would not generate new jobs or business opportunities. However, the proposed target array would provide valuable visual markers and calibration tools to current and future range users. By increasing the range's capabilities, the value of Hill AFB is increased as a DoD asset.

Cumulative Impacts
There are no expected adverse cumulative impacts from the proposed action. The number of sorties and testing and training operations are not expected to increase as a result of the proposed action. Therefore, noise and air quality impacts are not expected to increase.

Conclusion
Based on the results of this Environmental Assessment, no significant impacts are expected from the placement of the proposed no-drop target array on the South Range. Therefore, in accordance with Air Force Instruction 32-7061, a Finding of No Significant Impact (FONSI) may be issued. Preparation of an Environmental Impact Statement (EIS) is not necessary.

Hill Air Force Base, Utah

_____ _____

Environmental Protection Committee Chairman Date

PROPOSED EA FOR
NO-DROP TARGET ARRAY
ON UTTR SOUTH RANGE

February 2004

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LIST OF FIGURES

LIST OF ACRONYMS

ACC Air Combat Command
ACHP Advisory Council on Historic Preservation
AFB Air Force Base
AFI Air Force Instruction
AFMC Air Force Materiel Command
AICUZ Air Installation Compatible Use Zone
ALC Air Logistics Center
BLM Bureau of Land Management
BRAC Base Realignment and Closure Commission
CFR Code of Federal Regulations
dB Decibel unit
DoD Department of Defense
EA Environmental Assessment
EIS Environmental Impact Statement
EPA Environmental Protection Agency
FONSI Finding of No Significant Impact
L_{dnmr} Day-night average sound level
MOA Military Operating Airspace
MRTFB Major Range and Test Facility Base
NAAQS National Ambient Air Quality Standards
NCA Noise Control Act
NEPA National Environmental Policy Act
NHPA National Historic Preservation Act
NRHP National Register of Historic Places
OSHA Occupational Safety and Health Administration
SHPO State Historic Preservation Officer
SO_2 Sulfur dioxide
THPO Tribal Historic Preservation Officer
UDWR Utah Division of Wildlife Resources
USAF United States Air Force
U.S.C. United States Code
UTTR Utah Test and Training Range
UXO Unexploded Ordnance

Section 1
PURPOSE AND NEED FOR THE PROPOSED ACTION

1.1 Introduction

The Utah Test and Training Range (UTTR) is located in northwestern Utah, approximately 70 miles west of Salt Lake City. Air Combat Command (ACC) is responsible for range training operations, while Air Force Materiel Command (AFMC) has stewardship over the real property, including environmental support and compliance. The UTTR supports large footprint weapons testing and is designated a Major Range and Test Facility Base (MRTFB). The UTTR serves a variety of Department of Defense (DoD) customers for training exercises, test functions, and support services.

The UTTR consists of restricted air space, military operating areas (MOA) and DoD and public land under the Airspace. The DoD land in the UTTR is managed by the Air Force and Army (Dugway Proving Grounds). As shown in Figure 1-1, The UTTR is divided into two operating areas, the North Range and South Range. This document will address only those lands on the South Range operated by the Air Force.

The Air Force proposes to place a static, no-drop, man-made target array on the southwest side of the South Range. The target will be utilized as a visual and equipment calibration marker for pilots of aircraft testing/training on the South Range.

1.2 Background

What is currently known as the UTTR was established for bombing and gunnery training during World War II. It is divided into two distinct areas with I-80 running between the northern and southern sections. Following the 1995 BRAC Actions the ownership of the UTTR was assigned to Hill AFB Air Logistics Center (OO-ALC), while the operation of the Range as a DoD testing/training asset was assigned to Air Combat Command (ACC).

Currently, the north and south ranges combined consist of almost one million acres of land. Because of the proximity to the Wasatch Front population, the UTTR is easily accessible but has minimal encroachment issues. The UTTR now serves a variety of customers for training exercises, test functions, and support services.

1.3 Need for the Proposed Action

There exists a need to provide a target array that will act as a visual marker for pilots to easily recognize when they enter over the ground of the Utah Test and Training Range. An additional benefit of the target array would be the ability and opportunity for the pilots to use the visual target to electronically calibrate aircraft equipment.

Pilots typically embark on their Mission to the UTTR for testing or training from remote stations, flying across private and public land to perform their missions once they reach their intended destination on the range. Because topography does not provide a readily discernable demarcation between Range land and non-Range land a visual marker is required.

The proposed target array will consist of three man-made items arranged in a triangular configuration. They will be placed in such a manner that they will be readily visible from aircraft and easily discernable as man-made assets as opposed to naturally occurring phenomenon.

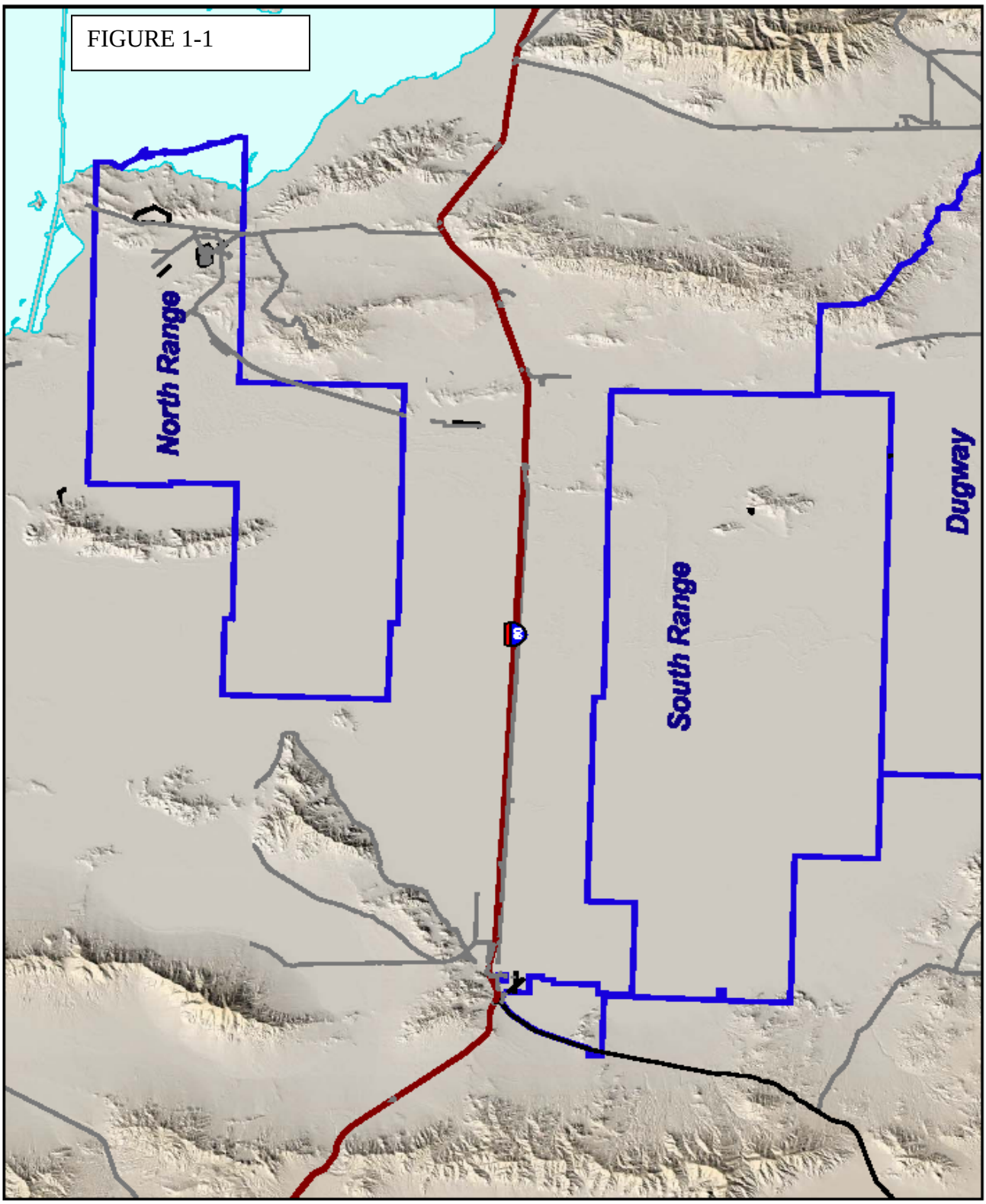


FIGURE 1-1
North Range
South Range
Dugway

The proposed target array will fulfill multiple functions. In addition to visual verification it will also assist the pilots with the calibration and focus of equipment prior to performing testing or training missions on the UTTR. It will also function as a training aid to pilots, allowing them to practice in a safe environment, developing skills they will need to utilize in a real-world situation.

1.4 Applicable Regulations

There are several regulatory environmental programs that apply to the proposed action. These include the program requirements described below.

1.4.1 National Environmental Policy Act Requirements for Air Force Actions

The *National Environmental Policy Act (NEPA) of 1969* requires federal agencies to analyze the potential environmental impacts of a proposed action and to evaluate reasonable alternative actions. The results of the analyses are used to make decisions or recommendations on whether and how to proceed with those actions. Air Force Instruction (AFI) 32-7061 describes the process of preparing an EA for proposed actions on Air Force property. Based on the EA, either a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS) is prepared. This EA looks at the environmental impacts of the proposed action and the no-action alternative. Both the AFI 32-7061 guidance and the implementing regulations of NEPA (40 *Code of Federal Regulations* [CFR] 1500) were followed in preparing this EA.

1.4.2 Noise Emission Requirements

Noise pollution is regulated by the *Noise Control Act (NCA) of 1972*. The NCA requires federal facilities to implement measures to reduce noise emissions. Generally, federal agencies whose activities result in increased environmental noise in the surrounding community are responsible for compliance with state and local environmental noise requirements. The State of Utah has no noise control regulations, although Utah Code 10-8-16 gives cities the authority to develop noise control regulations or standards.

1.4.3 Cultural Resource Requirements

The *National Historic Preservation Act (NHPA) of 1966, as amended through 2000 [16 U.S.C. Part 470 et seq.]*, is the cornerstone of Federal cultural resources management law. It establishes a national historic preservation program that includes elements for identification, evaluation, and protection of cultural resources. NHPA presents a policy of supporting and encouraging the conservation of *historic properties* or *historic resources* – the terms used to refer to "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places including artifacts, records, and material remains related to such a property or resource" [16 U.S.C. Part 470w(5)] – by directing Federal Agencies to assume responsibility for those cultural resources under Federal jurisdiction judged to be significant.

Section 106 of NHPA [16 U.S.C. Part 470f] ensures that cultural resources are properly considered in the planning stage of any Federal agency activity. Federal agencies are required to consider the effects of their undertakings on any properties eligible for inclusion in, or listed on, the National Register of Historic Places (NRHP) during the planning stage and to provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. This process is

detailed in implementing regulation 36 CFR Part 800 (Protection of Historic Properties). Section 106 does not require that an undertaking be stopped, but reasonable efforts must be made to minimize harm to eligible properties until the consultation process is completed.

The reissued 36 CFR Part 800 regulation (effective January 11, 2001) provides for increased involvement with additional consulting parties. These consulting parties include the SHPO, the THPO when applicable, American Indian tribes, local governments, applicants for Federal permits or licenses, and the public, including individuals and organizations which have a demonstrated interest in the outcome of any undertaking [36 CFR Part 800.2(c)]. The SHPO, in particular, has an important role because this Agency is the first line of external review on Federal actions requiring compliance with Section 106.

Other directives outlining the responsibilities of Federal agencies for preservation of cultural resources include: *The Antiquities Act of 1906 [16 U.S.C. Part 431-433], Archaeological Resources Protection Act of 1979 [16 U.S.C. Part 470aa et seq.], Native American Graves Protection and Repatriation Act of 1990 [25 U.S.C. Part 3001-3013], American Indian Religious Freedom Act of 1978 [42 U.S.C. Part 1996],* along with numerous Executive Orders, Presidential Memoranda, and Department of Defense Directives and Policies.

1.4.4 Natural Resource Requirements

The *Endangered Species Act of 1973* provides for the designation and protection of invertebrates, wildlife, fish, and plant species that are in danger of becoming extinct and conserves the ecosystems on which the species depend. Endangered species are animals or plants listed by regulation as being in danger of extinction. Threatened species are animals or plants that are likely to become endangered within the foreseeable future. Candidate species are animals or plants that have been selected for evaluation for inclusion on the threatened and endangered species lists. Candidate species may be considered for immediate listing if significant parts of their habitat are threatened by human impact.

The *Soil and Water Conservation Act* of 1977 provides for a continuing appraisal of U.S. soil, water and related resources, including fish and wildlife habitats, and a soil and water conservation program to assist landowners and land users in furthering soil and water conservation.

Section 2
DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

This section describes the proposed action and alternatives for construction and operation of a no-drop visual target array at the South Range. The selection criteria for site location are presented, and the proposed and alternative actions are described.

2.1 Site Selection Criteria

The South Range was selected for construction and operation of a new target array because of its unique characteristics as discussed in Section 1. The criteria for selecting a target complex site within the South Range are as follows:

- The selected site shall not interfere with the mission of Hill AFB, nor adversely affect DoD facilities.
- The selected site should be located below an air corridor route that pilots currently utilize on their approach to the South Range.
- The selected site should be located near the perimeter boundary fence line.
- The selected site should be located near a gate to facilitate placement of the target array with minimal ground disturbance.
- The selected site should be a minimum of 19 miles west of Wildcat Target Complex
- The selected site should be a minimum of 9 miles west of Sand Island Target Complex

The preferred site, located within ½ mile of GPS Coordinates N40 26.69 W113 51.80 is in the only area that meets all the requirements for selection. The specific site selection (exact site to be coordinated with HAFB Cultural and Natural Resource Managers) is inside the fence line perimeter, accessible by three gates in the area, and is within the flight line path pilots currently utilize to perform missions on the South Range.

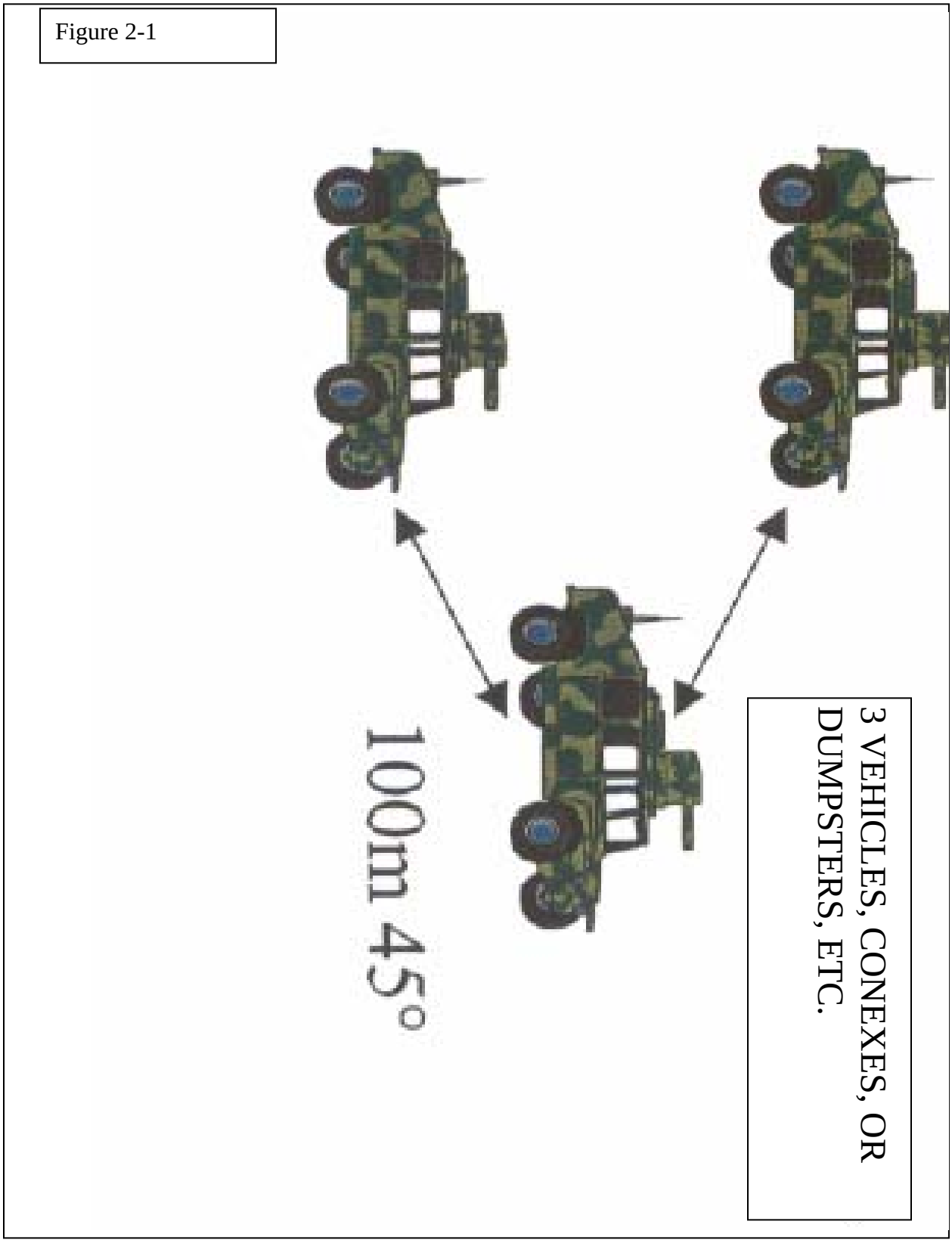
2.2 Description of Alternatives

This section describes the 4 alternatives considered for this EA. Alternative 1 is the proposed action. It includes placement and maintenance of the southwest target array. Alternative 2 is located approximately 4 miles E of Alternative 1 and includes placement and maintenance of the proposed target array. Alternative 3 is approximately 5 miles NE of alternative 1 and also includes placement and maintenance of the proposed target array. Alternative 4 is the no-action alternative. This alternative assumes no target placement on the southwest end of the South Range.

The following information will apply to Alternatives 1, 2 and 3, which all address establishment of a no-drop target array, with location being the variation. This information will not apply to alternative 4, the no action alternative.

- Place 3 vehicles, conexes, dumpsters, or other suitable man-made objects that will be readily discernable and identifiable from the air as other than topographical features. The item(s) utilized will be environmentally prepared, containing no oils, fluids, or hazardous material. Three (3) such items will be placed approximately 100 meters apart situated at a 45 degree angle from each other to form a “triangular” sighting target (Figure 2-1). The target will be dual purpose,

Figure 2-1



utilized as a visual marker for pilots entering range boundaries, as well as providing a visual array to calibrate electronic sighting equipment on the aircraft. No construction will be involved in placement of the array. The items would be towed along the outside of the perimeter fence line to the nearest gate and placed within the boundary of the South Range as coordinated with the Cultural and Natural Resource Managers.

- The target will not have ordnance of any type directed toward the ground but will be utilized only for sighting/calibration purposes from the air.

2.2.1 Alternative 1 – Proposed Action

The proposed action is to establish a no-drop target array in the southwest area of the South Range near the perimeter fence line. As shown in Figure 2-2, the approximate location of the proposed array is N40 26.69 W113 51.80. The proposed coordinate location for Alternative 1 is flexible within ½ mile in any direction within the boundary fence line. The final decision for exact placement will be made in coordination with Cultural and Natural Resource Managers and will be based in part on topography, ground type, and ground cover.

2.2.2 Alternative 2 – Alternate Location The proposed action is to establish a no-drop target array in the southwest area of the South Range approximately 4 miles east of the boundary fenceline. As shown in Figure 2-2, the approximate location of the proposed array is N40.43399 W113.78453. The proposed coordinate location for Alternative 2 is flexible within ½ mile in any direction to facilitate placement of the proposed target array. The final decision for exact placement will be made in coordination with Cultural and Natural Resource Managers and will be based in part on topography, ground type, and ground cover.

2.2.3 Alternative 3 – Alternate Location The proposed action is to establish a no-drop target array in the southwest area of the South Range approximately 5 miles northeast of the boundary fenceline. As shown in Figure 2-2, the approximate location of the proposed array is N40.50628 W113.81259. The proposed coordinate location for Alternative 3 is flexible within ½ mile in any direction to facilitate placement of the proposed target array. The final decision for exact placement will be made in coordination with Cultural and Natural Resource Managers and will be based in part on topography, ground type, and ground cover.

2.2.4 Alternative 4 – No-Action Alternative

If no action occurs, aircraft flying to the South Range for testing/training missions will not have an area that gives the pilot visual verification when the aircraft enters over UTTR land enroute to their destination target areas. The pilots will not have a fixed array that can be utilized to calibrate their electronic components prior to attaining their goal at the intended target site. Valuable training opportunities will be missed, with the potential to affect the warfighters future missions in support of national security.

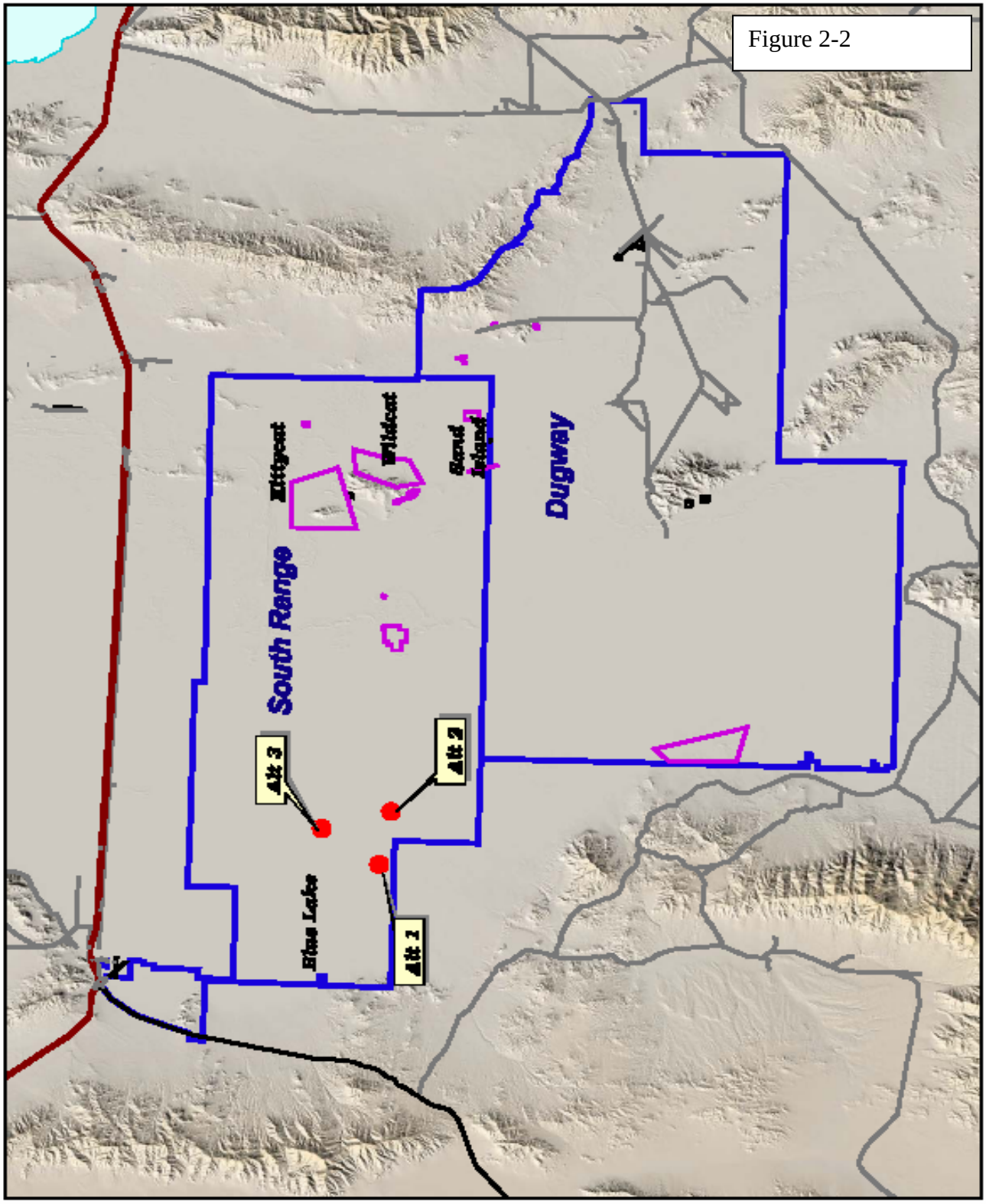


Figure 2-2
Dugway
South Range
Alt 3
Alt 2
Alt 1
Blue Lake

2.3 Decision Matrix Table

The following decision matrix table was used in comparing the alternative actions:

ALT 1	ALT 2	ALT 3	ALT 4	SELECTION CRITERIA
Y	Y	Y	N	Site shall not interfere with the mission of Hill AFB, nor adversely affect DoD facilities.
Y	Y	Y	N	Site should be located below an air corridor route that pilots currently utilize on their approach to the South Range.
Y	N	N	N	Site should be located near the perimeter boundary fence line.
Y	N	N	N	Site should be located near a gate to facilitate placement of the target array with minimal ground disturbance.
Y	Y	Y	N	Site should be a minimum of 19 miles west of Wildcat Target Complex
Y	Y	Y	N	Site should be a minimum of 9 miles west of Sand Island Target Complex

Y = Meets selection Criteria

N = Does not meet selection Criteria

Section 3
DESCRIPTION OF THE EXISTING ENVIRONMENT

This section describes the current environment at the South Range in the vicinity of the proposed action with regard to cultural and natural resources and physical conditions.

3.1 Surface Water

No perennial springs exist in the area of the proposed action. The nearest perennial spring is located approximately 12 miles NW of the proposed location at the Blue Lakes area. Several hundred acres of land in the Blue Lakes area have been deeded to the State of Utah. The only flows in the stream channels on the South Range are found just below perennial springs and generally infiltrate within a short distance. Most of the precipitation that falls in the area is quickly discharged by evaporation or is stored temporarily as soil moisture and then discharged by evapotranspiration (Gates and Druer 1981; Stephen 1974). Figure 3-1 shows surface water features on the South Range. (Source: Final Range management Plan for the Hill Air Force Range and Wendover Air Force Range of the UTTR, Jan 1997 EA).

3.2 Groundwater

Groundwater can be found in the unconsolidated and consolidated rocks beneath the South Range. Recharge of the groundwater typically occurs by precipitation falling at higher elevations. Water reaches the groundwater reservoir by seepage from runoff and streams on alluvial slopes. The major groundwater reservoir is more than 1,000 feet thick. A shallow brine aquifer lies beneath the mudflat area of the playas soils and consists of lake bed clay and silt and crystalline salt. Although these sediments extend to a considerable depth, only the upper 25 feet act as an aquifer (EnviroSupport, 1998).

3.3 Geology and Soils

Geology

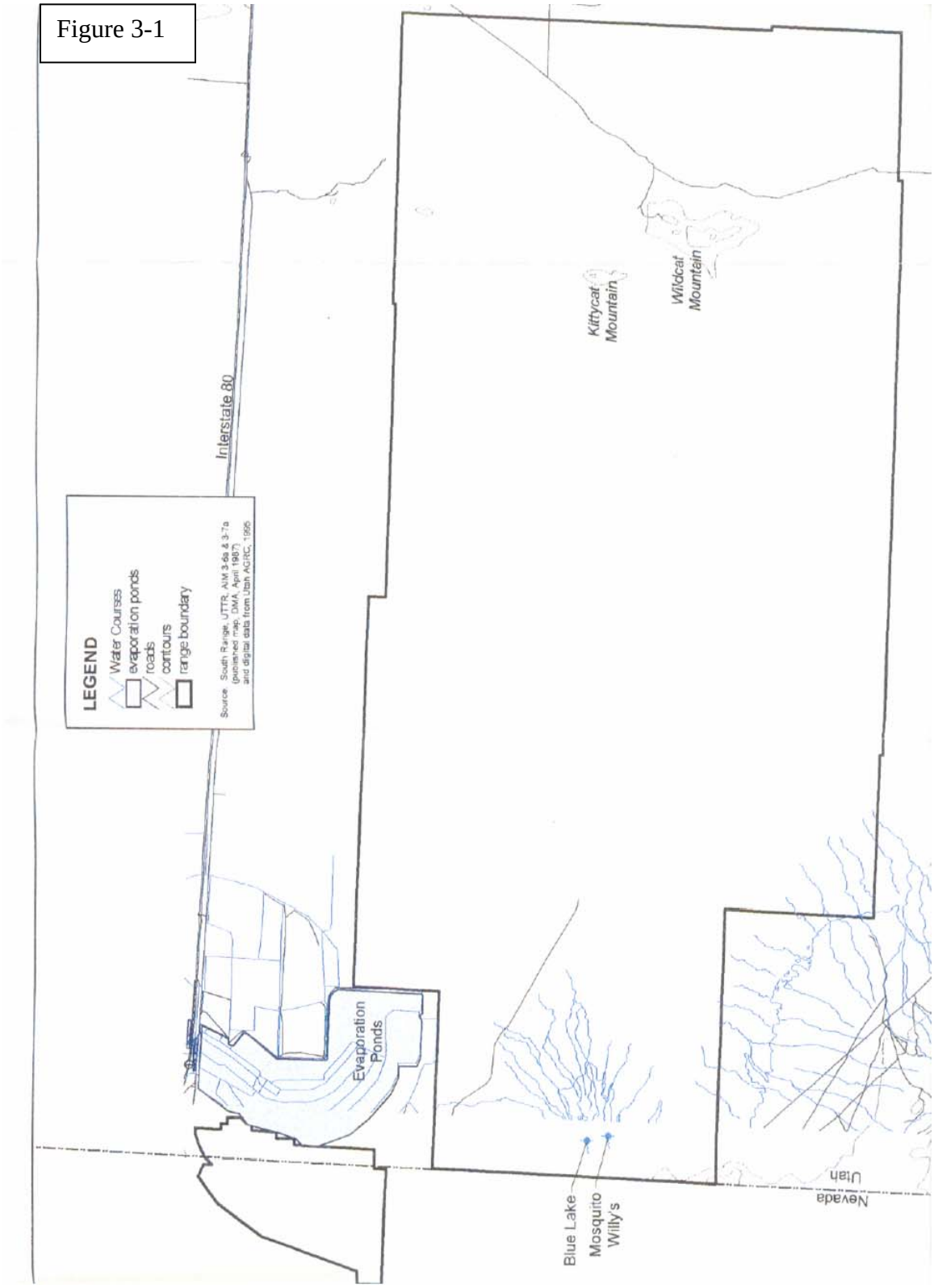
The South Range is part of the Great Basin Region of the Basin and Range Physiographic Province, which is characterized by fault-block mountain ranges trending north and south, separated by alluvium-filled valleys and closed desert basins. During the late Pleistocene Epoch, Lake Bonneville covered the entire South Range area. Lake Bonneville was a freshwater lake that at its maximum extent covered an area of approximately 50,000 square kilometers and had a depth of more than 330 meters (Flint, 1971).

Wildcat and Kittycat Mountains are the only exposed rocks on the South Range. These mountains consist of Pennsylvanian dolomite and limestone. Some igneous rocks that are younger than Pennsylvanian are also found in the mountains. Similar exposed rocks are also present just west of the south range and across the Nevada line in the Snoopy Area and in the Lead Mine Hills (EnviroSupport, 1998).

Soils

The majority of the soils on the south range include playas and playas-saltair complex. The playa and playas-saltair soils have low permeability and drain slowly. The playa water

Figure 3-1


Interstate 80
Kittycat Mountain
Wildcat Mountain
LEGEND
Water Courses
evaporation ponds
roads
contours
range boundary
Source: South Range, UTTR, AIM 3-6a & 3-7a (published map, DMA, April 1987) and digital data from Utah AGRC, 1995
Evaporation Ponds
Blue Lake
Mosquito
Willy's
Nevada
Utah

capacity is very low, while the playas-saltair water capacity is very low to low. The proposed site for the target is also covered by dynal-tooele, saline complex. The majority of soils on the range are not suitable for livestock grazing, range seeding, or irrigated crops. Between 9% and less than 0.5% of soils (Hiko Peak Gravelly Loam) on the south range are readily suitable for roads and building site development. (EnviroSupport, 1998) Those soils are concentrated along the slopes and upland areas on the east and west sides of the South Range. Although no data has been published in the exact location of the preferred target placement area the surrounding areas all consist of playas (320,820 acres) with scattered areas of playas-Saltair Complex (88,203 acres) both south and west of the proposed area. (Range Management Plan and Environmental Assessment for the Hill AFR and Wendover AFR of the UTTR Ver. 3.1, 1997).

3.4 Vegetation

The majority of the South Range is comprised of barren to sparsely vegetated mudflats. Arkush (1997b:21, 25) has identified a series of seven zones for the region comprising the South Range. Of these, the proposed target array site falls within what is defined as "Zone 1."

Zone 1 is identified by its sediments over a predominately barren landscape. The vegetation that does grow in Zone 1 occurs in isolated accumulations of sandy silt and in shallow drainages associated with sheet runoff. Pickleweed (Allenrolfea occidentalis) is the dominant species, but other alkali-associated plants include seepweed or desert blight (Suaeda spp.), and occasionally saltsage (Atriplex tridentate or A. falcatus), shadscale (Atriplex confertifolia), big greasewood (Sarcobatus vermiculatus), and the introduced halogeton (Halogeton glomeratus). Pickleweed is dominant over most of Zone 1 as it is the most salt-tolerant of the Great Basin desert plants. (Final Report TS-5 Central Area and Craners Cultrual Resources Inventory, Utah Test and Training Range, Tooele and Box Elder Counties, UT, James A. Carter and D. Craig Young, Jr.) Workman et. Al. (1992c) identified slightly different cover types and provided vegetation types as well. The vegetation types listed by Workman are generally related to the cover types as shown in Figure 3-2. The vegetation types in the proposed area are shown as barrens and/or pickleweed barrens. (Range Management Plan and Environmental Assessment for the Hill AFR and Wendover AFR of the UTTR Ver. 3.1, 1997).

3.5 Wetlands

The total area of wetlands identified within the South Range was estimated at 22,245 acres (Parsons Engineering Science, 1995). The identified wetlands occur in the Blue Lake complex area, on the western border of the range.

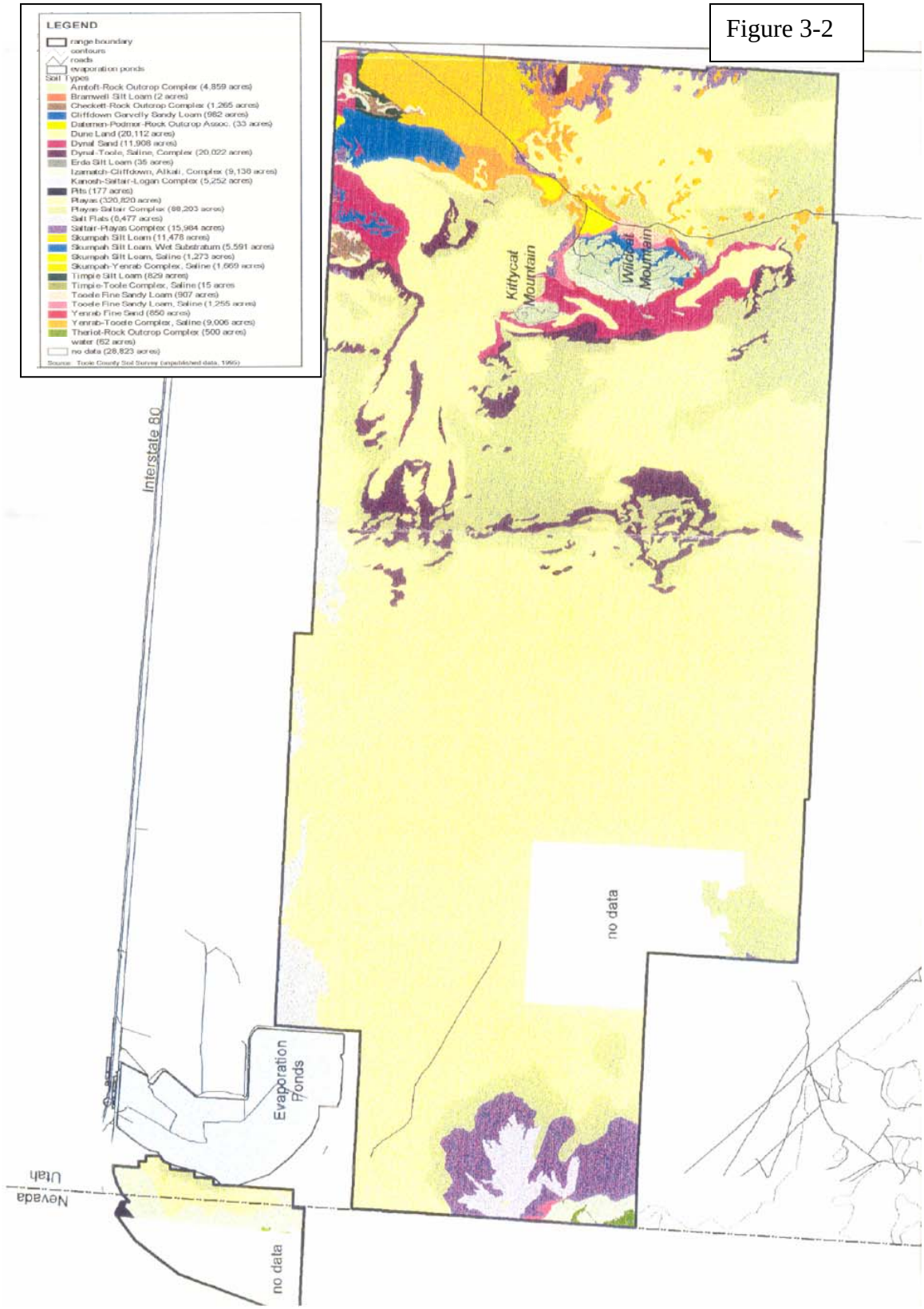
3.6 Air Quality

The South Range is located in western Tooele County, which is currently designated as an attainment area for all National Ambient Air Quality Standards (NAAQS). East Tooele County above 5,600 feet is currently nonattainment for sulfur dioxide (SO2).

3.7 Wildlife

Surveys were conducted in June 1998 to sample avian (bird), mammal, reptile, and terrestrial invertebrate populations that inhabit the area on South Range known as TS-5 (Hill AFB, 1998b). The TS-5 Area is located approximately 14 miles east of the proposed target site.

Figure 3-2


LEGEND
range boundary
contours
roads
evaporation ponds
Soil Types
Amtoft-Rock Outcrop Complex (4,859 acres)
Bramwell Silt Loam (2 acres)
Checkett-Rock Outcrop Complex (1,265 acres)
Cliffdown Gravelly Sandy Loam (982 acres)
Dateman-Podmor-Rock Outcrop Assoc. (33 acres)
Dune Land (20,112 acres)
Dynal Sand (11,908 acres)
Dynal-Toole, Saline, Complex (20,022 acres)
Erda Silt Loam (36 acres)
Izamatch-Cliffdown, Alkali, Complex (9,136 acres)
Kanosh-Saltair-Logan Complex (5,252 acres)
Pits (177 acres)
Playas (320,820 acres)
Playas-Saltair Complex (88,203 acres)
Salt Flats (6,477 acres)
Saltair-Hayas Complex (15,984 acres)
Skumpah Silt Loam (11,478 acres)
Skumpah Silt Loam, Wet Substratum (5,591 acres)
Skumpah Silt Loam, Saline (1,273 acres)
Skumpah-Yenrab Complex, Saline (1,669 acres)
Timpie Silt Loam (829 acres)
Timpie-Toole Complex, Saline (15 acres
Tooele Fine Sandy Loam (907 acres)
Tooele Fine Sandy Loam, Saline (1,255 acres)
Yenrab Fine Sand (650 acres)
Yenrab-Tooele Complex, Saline (9,006 acres)
Theriot-Rock Outcrop Complex (500 acres)
water (52 acres)
no data (28,823 acres)
Source: Tooele County Soil Survey (unpublished data, 1995)
Interstate 80
Kittycat Mountain
Wildcat Mountain
no data
Evaporation Ponds
Nevada
Utah
no data

Terrain on portions of TS-5 is considered Zone 1 terrain and is similar to the mud flat areas at the proposed target array location. While no studies of wildlife have been conducted in the specific area where the proposed target would be set, the wildlife studies that have been conducted on the South Range (with the closest study being conducted on TS-5 Area) are indicative of the known wildlife found over all of the South Range. Small mammals, rodents, and reptiles, as well as larger herbivores, are common to settings where shrubby plants and grasses are present but are less common on the mud flats where little plant life exists (Integrated Cultural Resources Management Plan 2004-2008).

Bird species found included: Barn Swallow, Eared Grebe, Horned Lark, Loggerhead Shrike, Prairie falcon, Sage sparrow, Sage thrasher and Short-eared owl. None of the avian species are considered threatened or endangered.

The majority of mammals inventoried in and around the TS-5 Area were deer mice. The presence of black tailed jackrabbits, coyote, kit fox, and badger was evident although, other than the jackrabbits, actual sightings were not obtained during the study. Of the mammals observed, none are considered threatened, endangered, or sensitive.

Only two reptile species, the sagebrush lizard and the short-horned lizard, were observed on TS-5. Of the reptiles observed, none are considered threatened, endangered, or sensitive.

Insect diversity and abundance on TS-5 is low. The majority of insects observed included Diptera (flies), Hymenoptera (bees and wasps), and microhymenoptera (very small parasite wasps). Of the insects observed, none are considered threatened, endangered, or sensitive.

3.8 Cultural Resources

The term cultural resources is very inclusive and refers to any place, site, building, structure, or object, or collection of these, that was built or used by people. Resources can be either prehistoric or historic. Some cultural resources, such as traditional cultural properties and sacred sites, may be a place without any visible evidence of human use or modification.

Cultural resources can be divided into three basic categories: archaeological, architectural, and traditional cultural properties or sacred sites. Archaeological resources are where prehistoric and historic activities measurably altered the earth (for example, pit houses, hearths) or where physical remains were deposited (for example, projectile points, pottery, cans, bottles). Architectural resources include standing buildings, dams, canals, bridges, or other structures. In general, architectural resources must be at least 50 years old to be considered eligible for inclusion in the National Register of Historic Places (NRHP). Structures less than 50 years old may warrant inclusion in the NRHP if they are exceptionally significant or have the potential to gain future significance (for example, Cold War era structures). Traditional resources are those associated with cultural practices and beliefs of a living community that are rooted in its history and are important in maintaining the continuing cultural identity of the community.

The Air Force has conducted or contracted for cultural resources inventories of over 260,000 acres, or about 27 percent of the UTTR. The greatest number of inventories has been conducted in response to specific actions requiring Section 106 compliance; however, Section 110 inventories sponsored by Hill AFB have accounted for 220,745 acres. Cultural resources inventories to date have identified 317 archeological sites on the UTTR (Hill AFB ICRMP 2004).

The current project area was inventoried in 1994 during one of the Section 110 inventories (Arkush 1994). Two eligible archaeological sites, 42To804 and 42To805 were recorded in the vicinity of the current project area, but are not in the Area of Potential Effect. No architectural resources or traditional cultural properties have been identified in the current project area.

3.9 Land Use

The South Range is closed to the public and is used for military training and testing missions related to national defense. The primary use of the South Range is for military personnel and weapons systems training and testing exercises. Operations include air-to-air operations, air-to-surface operations, visual and radar bombing, and tactical maneuvers to test equipment and train personnel.

The majority of lands surrounding the South Range are publicly accessible, although some land in the vicinity is privately owned. Federal lands surrounding the South Range are managed by the DoD and the Bureau of Land Management (BLM). The BLM manages the land for multiple use, including livestock grazing, wildlife management, mining, and recreation. The area nearest the proposed target array site is mud-flat terrain, and therefore is not well suited to livestock grazing. The Blue Lake wildlife management area lies approximately 12 miles northwest of the proposed site.

3.10 Noise

For the purposes of this document, noise is defined as “unwanted” sound caused by activities that are not part of the natural setting of a locality and that are heard as such by people and animals.

Noise studies have been conducted in the past during the studies for Environmental Surveys (ES) and Environmental Impact Statements (EIS) conducted prior to the implementation of other projects on the South Range. It has been determined that of the towns and ranches located under the South Range airspace but outside of Department of Defense (DoD) controlled lands, only three ranches were estimated to have noise exposures of 65 Ldnmr or greater due to aircraft operations.

Because the placement of the proposed target array will be located directly under an existing flight path there is no anticipated increase in quantity, type or duration of present and expected noise impact.

3.11 Health and Safety

Safety and Occupational Health issues at the South Range include the dangers associated with unexploded ordnance. Due to the historical activity at the South Range, unexploded ordnance (UXO) may exist at any location within the range boundaries. The proposed target array is designated as a “no-drop” target, to be utilized for visual orientation and electronic equipment calibration only. No new ordnance will be directed toward the ground at the proposed location.

3.12 Transportation

Ground transportation access at South Range is limited to authorized personnel only. Two roads have been documented on existing maps for the South Range. One such road is a jeep trail that enters the northwest corner of the South Range and dead ends approximately 12 miles east of the western border. This trail lies entirely on the mudflats and is not passable when wet.

On the BLM land outside the South Range is a wheel track following the perimeter fence line that may initially have been created by the workers installing the fence that encloses the area. That track, on the outside of the South Range fence line is the proposed route to transport the items that will be utilized to place the proposed target array.

3.13 Socioeconomic

The area surrounding the eastern border of the South Range is sparsely populated with no incorporated communities. The location of the South Range limits its influence on the socioeconomic conditions of any surrounding communities. However, the UTTR is an integral part of operations at Hill AFB and, therefore, has an effect on the socioeconomic condition of the Wasatch Front counties

Section 4
ENVIRONMENTAL CONSEQUENCES

This section describes the consequences of the 3 action alternatives and the no-action alternative on the environmental conditions discussed in Section 3.

4.1 Surface Water

Proposed Action (including Alternatives 1-3)

No significant impacts on surface water are anticipated as a result of the proposed action at any of the 3 alternate locations. The target assets utilized to make up the proposed target array will be environmentally prepared and all oils, fuels, fluids or hazardous material will be removed prior to transport and placement.

No-Action Alternative

The no-action alternative would not result in any impacts to surface water in the area.

4.2 Groundwater

Proposed Action (including Alternatives 1-3)

No impacts to groundwater are expected as a result of the proposed action at any of the 3 alternate locations. A shallow brine aquifer is located approximately 25 feet beneath the mud flats. Most precipitation to the area quickly evaporates.

No-Action Alternative

The no-action alternative would not impact groundwater.

4.3 Geology and Soils

Proposed Action (including Alternatives 1-3)

No impacts to soils in the area are anticipated due to the proposed action. If the preferred location is utilized the ground disturbance would be minimized as compared to ground disturbance anticipated if Alternate Locations 2 and 3 are utilized. There are no roads existing from the dirt track/gate area near alternate location 1 to the other two proposed locations. Selection of Alternate Location 2 or 3 would necessitate driving across the terrain to accomplish placement of the target array, creating a new dirt track to arrive at the destination. Once at the intended destination there would be no significant difference in impact to soils. The target array would be placed on top of the soil without regard to site selection. No construction is anticipated. The only soil disturbance anticipated would be from the vehicles transporting and placing the items in their triangular configuration.

No-Action Alternative (including Alternatives 1-3)

The no-action alternative would result in no impacts to geology and soils in the area.

4.4 Vegetation

Proposed Action (including Alternatives 1-3)

Because the vegetation in the proposed area is sparse it is anticipated that very little disturbance will occur. The only areas of disturbance would be the route taken by vehicles delivering the target array items from the gate to the proposed location. Because the majority of disturbance would occur from transportation of the items the selection of alternative sites 2 and 3 would necessitate a greater area of disturbance than alternative 1, the proposed location. There exists a dirt track running along the boundary fence line that will be traveled to the approximate area of the Alternative 1 site. If selection of Alternative 2 or 3 sites are made a new dirt track will be created by transportation vehicles in order to travel from the Alternative 1 site to either of the other sites. All 3 site alternatives would create some ingress and egress tracks, but since the intent is to place the items on top of the soil very little placement related disturbance would occur.

No-Action Alternative

The no-action alternative would result in o impacts to vegetation in the area.

4.5 Wetlands

Proposed Action (including Alternatives 1-3)

The proposed action does not involve sites on any wetland area. The Blue Lake area lies approximately 12 miles to the west of all three proposed alternative target array locations. Since the proposed target array is designated as a no-drop target no adverse environmental impacts to wetlands are expected.

No-Action Alternative

The no-action alternative would have no impact on wetlands.

4.6 Air Quality

Proposed Action (including Alternatives 1-3)

There will be no significant increase in air emissions from the proposed action at any of the 3 Alternate Locations. Consequently, placement of the proposed target array will not produce any significant changes in air emissions at the South Range.

No-Action Alternative

The no-action alternative would have no impact on air quality.

4.7 Wildlife

Proposed Action (including Alternatives 1-3)

No federally protected species or habitats are known to exist in the proposed or Alternate

target array areas. Consequently, no significant adverse impacts to wildlife are expected from the proposed action.

No-Action Alternative

The no-action alternative would have no impact on wildlife.

4.8 Cultural Resources

Proposed Action (including Alternatives 1-3)

As discussed in Section 3.8, the area for the proposed action has been inventoried for cultural resources, with none identified in the Area of Potential Effect. Therefore, the proposed action will be considered No Effect in accordance with 36 CFR § 800. The sites selected for Alternative Action 2 and 3 are outside of areas that have been surveyed. If Alternative Actions 2 and 3 are selected a Cultural Resources survey will need to be accomplished prior to or at time of transportation of the target array. Cultural Resource Manager will be notified of placement route and schedule, and consulted for exact placement regardless of site located.

No-Action Alternative

The no-action alternative would have no impact on cultural resources.

4.9 Land Use

Proposed Action (including Alternatives 1-3)

Land on the South Range is typically used for military testing and training purposes. Developing the new target array at the proposed location is consistent with the operations of the UTTR. The placement of the target array in the proposed location at the Alternative 1 site will provide valuable visual cues as well as calibration opportunities to the pilots testing and training over the UTTR. Selection of Alternative 2 or 3 sites will provide calibration opportunities for the pilots utilizing the testing and training capabilities of the range, but will not allow for visual orientation to the boundary, which is the primary intent of the target array placement.

No-Action Alternative

The no-action alternative would have no impact on current land use at the South Range.

4.10 Noise

Proposed Action (including Alternatives 1-3)

The noise impacts associated with existing conditions at the South Range are described in Section 3 of this document. The proposed action would have no impact, neither increasing nor decreasing the number, type, or quantity of existing flights to and from the area over the UTTR. As a result there will be no significant noise impacts associated with the utilization of the new target array at any of the proposed alternative locations (1 through 3).

No-Action Alternative

The no-action alternative would have no adverse noise impacts.

4.11 Health and Safety

Proposed Action (including Alternatives 1-3)

No new long-term health and safety hazards are expected from the proposed action, regardless of the alternative site selected for target placement.

No-Action Alternative

The no-action alternative would result in no significant impacts to health and safety at South Range.

4.12 Transportation

Proposed Action (including Alternatives 1-3)

The transportation to the proposed Alternative 1 area would be accomplished on the inside perimeter fence line. No new roads will be required or constructed to transport the target array items. The proposed transportation activities would not adversely impact the existing transportation at the South Range. The placement of the Array at Alternative 2 or Alternative 3 sites would necessitate some transportation where no dirt track currently exists, but would not adversely impact the existing transportation at the South Range.

No-Action Alternative

The no-action alternative would not impact transportation at South Range.

4.13 Socioeconomics

Proposed Action (including Alternatives 1-3)

The asset placement at the proposed locations Alternatives 1 through 3 would not significantly impact the socioeconomics of the surrounding area. The new target array would not generate new jobs or business opportunities. However, the proposed target array would provide valuable visual markers and calibration tools to current and future range users. By increasing the range's capabilities, the value of Hill AFB is increased as a DoD asset.

No-Action Alternative

The no-action alternative would not impact the socioeconomic conditions at the South Range.

4.14 Environmental Justice (including Alternatives 1-3)

Environmental justice analyses for NEPA documents attempt to determine whether a proposed action disproportionately impacts minority and poor populations. However, because the South Range is not located adjacent to such groups, and because the proposed actions do not result in significant environmental adverse impacts, no such analysis was conducted.

4.15 Cumulative Impacts

Proposed Action (including Alternatives 1-3)

Because the proposed target array, regardless of Alternative site selection (Alternative 1, 2 or 3) is a no-drop target zone there are no cumulative impacts anticipated. The number of sorties and testing and training operations are not expected to increase as a result of the proposed action. Therefore, noise and air quality impacts are not expected to increase.

No-Action Alternative

The no-action alternative would have no adverse impacts on the environment. However, it could impact the pilot training opportunities for ground sighting and aerial calibration, thereby having a negative impact on national security.

SECTION 5

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SECTION 7

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