

104

RESTORATION INFORMATION MANAGEMENT SYSTEM  
FORMERLY USED DEFENSE SITES (FUDS)  
PROJECT FACT SHEET  
FEBURUARY 1995  
TAG REVIEW DATE: 26 JULY 1995

1. **SITE NAME:** Hurricane Mesa Test Site

**SITE NUMBER:** J08UT002601

**LOCATION:**

City: Virgin  
County: Washington  
State: Utah

**PROJECT NUMBER:** J08UT002601

**CATEGORY:** OE

**ASR RAC:** 1

**INPR RAC:** 3

2. **POC'S:**

<b>TECHNICAL MANAGER:</b>	<b>GEO DISTRICT POC:</b>
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**SUPPORT DISTRICT (ASR) POC:**  
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3. **SITE DESCRIPTION:** The Hurricane Mesa Test Site was acquired by the U.S. Air Force in 1954. The Air Force constructed a rocket sled test track on the original 3,500.78 acres site and named the site the Hurricane Mesa Supersonic Research Site. The Bureau of Land Management transferred 2,851.68 of the acres to the Air Force, the state of Utah leased them 643.83 acres, and private property owners leased the Air Force 3.68 acres of the original site. The property consists of Hurricane Mesa, where the Test Track and support facilities were constructed, and an area below the

mesa. Harry Diamond Laboratories conducted tests for the U.S. Army from 1966 to 1976. The U.S. Air Force returned the 2,851.68 acre parcel to the Bureau of Land Management in 1962. The leases from the State of Utah and private property owners were terminated in 1963. The State of Utah now owns the majority of the site with 680 acres below the mesa still with the Bureau of Land

Management. Since the disposal of the property by the Air Force, private contractors have leased the portion owned by the State of Utah. In 1963, Stanley Aviation, a defense contractor, leased the test site to continue testing, and in 1965, Sacol, Inc. leased the test track for further testing. In 1980, Sacol, Inc. sold the Hurricane Mesa Test Track facility to Stencil Aero Engineering Corporation.

Hurricane Mesa is located in the extreme southwestern corner of Utah, on the edge of the great basin section of the basin and range province. There are short mountain ranges and intermontane aggradational plains in roughly equal proportions. The mountain ranges are short and rise to heights of 900 to 1500 meters. The ranges run almost exclusively north-south. There is very little rainfall, but what does fall is generally very heavy and sporadic. Coupled with sparse vegetative cover, the sheetflooding and streamflooding move great quantities of rock debris downslope. The soils in the mesa site are shallow and are generally multicolored beds of eroding shale, shale interbedded with sandstone and/or layers of gypsum. The southern portion of the site is reddish-brown clayey, silty sand to a depth of 10 centimeters, and the subsoil is yellowish-red clayey, silty sand to a depth of 30 centimeters. Bedrock occurs up to 50 centimeters. Runoff from the site flows into the Virgin River drainageway. Summers are hot and relatively dry. Winters are normally short and relatively mild. The annual precipitation ranges from about 20 inches per year in the higher mountains to about 6 inches at the lowest levels. Winds are generally light except in the mouths of the larger canyons. The strongest winds are associated with active thunderstorms in the summer.

#### **4. SITE HISTORY:**

Construction began on the test track in 1954. The 12,000 foot-long test track was build as a rocket test sled for aircraft escape systems. Several countries including England and Canada conducted tests at the facility and Coleman Engineering Company, Inc., the facility constructor, supervised 334 tests. The site was placed on a stand-by status from December 1961 to June 1963, when testing was resumed by a private defense contractor. In 1958, tests were conducted other than those involving rocket ejection seats. The site name was changed to Hurricane Supersonic Research Site and long distance rocket experiments were conducted at balloon targets 75 miles away. In 1967, in conjunction with the Naval Ordnance Laboratories, a proposal was tabled to perform 10 low drag inert bomb runs off the end of the mesa. It is unknown if these tests were ever conducted. Inert and live disc flares were scheduled for launch at the facility beginning in November 1969. It is unknown if these tests were ever conducted. From 1966 to 1976 the site was used for 40mm grenade and 60mm mortar tests, and numerous M414A1 fuzes were fired on 5-inch Zuni rockets. The rockets were fired from the mesa to a target area 1,300 feet below. In addition to the test track facility, an oil surface roadway, underground communication network, water pipelines, three explosive storage facilities, a quonset hut, offices, living quarters, and a steel water tower were constructed. Evidence

indicates that 2.75" rockets were fired at the site and possibly LOKI rockets were tried as a propellant for the rocket sled. A concrete pad was constructed in the test area where a rocket launcher was mounted for the 2.75" rockets fired down range. In 1986, six campers were injured when they placed a 40mm grenade on a campfire and it exploded.

**5. PROJECT DESCRIPTION:** This site should be considered as two areas, the mesa and the land below the mesa. There is no evidence to indicate that the mesa area was ever used as an impact area or that ordnance contamination is present. A rocket was found in a crevice. However, this is considered to be an isolated incident. The southern rim of the mesa provides no evidence of ordnance or ordnance testing.

The land below the mesa is divided into six areas as discussed below:

- Detonation Area. This area is a miniature box canyon where unexploded grenades were wrapped with C4 explosives for destruction. There is shrapnel on the ground in all directions from the detonation point.

- Area 1. This area is on State of Utah property and is the location of a campfire incident in 1986 where six campers were injured when a 40mm grenade was placed in a campfire and subsequently exploded. An unexploded 40mm grenade was found on the surface approximately 30 feet from the site where the 1986 explosion occurred. This area is along a dirt road easily accessible to the public.

- Area 2. This area is on Bureau of Land Management property and is the location where a rocket and three unexploded 40mm grenades were found on the surface during the site visit. This area is at a lower level than Area 1 and there is evidence of motorcycle and all terrain vehicle tracks in the area.

- Area 3. This area is on State of Utah property and is the location of four unexploded 40mm grenades which were found on the surface during the site visit. There are beverage cans and bottles scattered over the area, and there is evidence of a trail through the area.

- Impact Area. There is evidence of shrapnel over this entire area. Some of the shrapnel is from 40mm grenades and 2.75" rockets; however, some of the larger fragments cannot be identified. There is no evidence of public use of this area and no evidence of unexploded ordnance.

- Debris Area. Packing tubes and wood crating litter an area several hundred feet beneath the mesa rim. The area is virtually inaccessible except by repelling. There is no evidence which indicates unexploded ordnance in this area.

## Detonation Area.

Size Acres: Unknown  
Former Usage: Detonation area for 40mm grenades, test site  
Present Usage: Property of the State of Utah, undeveloped land  
Probable End Usage: Same  
Ordnance Presence: Shrapnel. No unexploded ordnance found.  
Types: 40mm grenade shrapnel  
Density: Extensive  
Ordnance Depth: Unknown  
ASR Recommends: EE/CA

## Area 1.

Size Acres: Unknown  
Former Usage: Test Site  
Present Usage: Property of State of Utah, Undeveloped property  
Probable End Usage: Same  
Ordnance Presence: Unexploded ordnance  
Types: 40mm grenades  
Density: Unknown  
Ordnance Depth: Surface  
ASR Recommends: RAC 1, EE/CA

## Area 2.

Size Acres: Unknown  
Former Usage: Test Site  
Present Usage: Bureau of Land Management Property, undeveloped  
Probable End Usage: Same  
Ordnance Presence: Unexploded ordnance  
Types: 40mm grenades and 2.75" rockets  
Density: Unknown  
Ordnance Depth: Surface  
ASR Recommends: EE/CA

### Area 3.

Size Acres: Unknown  
Former Usage: Test Site  
Present Usage: Property of the State of Utah, undeveloped land  
Probable End Usage: Same  
Ordnance Presence: Unexploded ordnance  
Types: 40mm grenades  
Density: Unknown  
Ordnance Depth: Surface  
ASR Recommends: EE/CA

### Impact Area.

Size Acres: Unknown  
Former Usage: Test site  
Present Usage: Part State of Utah, and Part Bureau of Land Management, undeveloped  
Probable End Usage: Same  
Ordnance Presence: Shrapnel  
Types: 40mm grenades and 2.75" rocket  
Density: Extensive  
Ordnance Depth: Surface  
ASR Recommends: EE/CA

### Debris Area.

Size Acres: Unknown  
Former Usage: Test Site  
Present Usage: Property of State of Utah, undeveloped  
Probable End Usage: Same  
Ordnance Presence: Debris  
Types: Packing and wood crating  
Density: Limited  
Ordnance Depth: Surface  
ASR Recommends: No further action

**6.0 CURRENT STATUS:** The ASR was completed by the St. Louis District in February 1995 and assigned a RAC score of 1 due to the verifiable presence of surface contamination of OE . There was no evidence to indicate the presence of Chemical Warfare Materiel at the site.

**7. STRATEGY:** The total area should be divided into two sites. The mesa proper, the southern rim, and the debris area are all included in site one and require no further action due to a lack of evidence of unexploded ordnance. Aside from the rocket found in the crevice on the mesa, there does not appear to be any reason for further investigation of the mesa. The debris area should not require further investigation since it is not suspected of containing unexploded ordnance and is nearly inaccessible to the public. The area below the mesa and east of the paved road that goes to the mesa provides no evidence of unexploded ordnance and there is no evidence to indicate activity occurred in this area.

Site two consists of the land below the mesa and west of the paved road. This site consists of approximately 1,000 acres and includes areas 1, 2, and 3, noted above, plus the demolition and impact areas. There is a high probability that unexploded 40mm grenades are scattered over this area. The impact area received extensive use; however, it may be limited to only shrapnel and debris. This site is easily accessible to the public and represents a hazardous condition. The rate and extent of surface and subsurface contamination is unclear. Due to the nature of the terrain, steep slopes, and shallow soil, weather plays an important role in uncovering unexploded subsurface ordnance. Site inspections without intrusive investigations provides very limited data relative to the extent of contamination. Therefore, an EE/CA should be performed in this area in order to consider alternatives and recommend action. Institutional controls, as an interim measure, should be implemented to warn the populace of the potential danger and actions to take in the event OE is discovered.

**8. ISSUES AND CONCERNS:** The U.S. Fish and Wildlife Service has identified 46 endangered, threatened, or candidate species that may occur in Washington County. An on-site inspection by appropriate State and Federal personnel may be necessary to verify the presence, absence, or location of listed species, or natural communities if remedial action is recommended.

PHASE I: Presented to TAG for decision/resolution.

PHASE II: Remaining issues and concerns identified to PM prior to project start.

1. Some recommendations, contamination concerns, and area usage identified in the ASR is suspect at best. Determination of the time, cost, and effort used to characterize these areas should be well thought out.

2. Determine if site characterization is required for areas identified in the ASR where no contamination could be found, or no documentation or personal accounts of contamination were recorded.

**9. SCHEDULE SUMMARY:**

Phase	Orig Start	Sch Start	Actual Start	Orig Comp	Sch Comp	Actual Comp
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EE/CA OCT93

BASED ON RAC AND ESTIMATED START ACCORDING TO 5 YEAR WORKPLAN

**10. FUNDING /BUDGET SUMMARY:**

Year	Phase	Exec FOA	In-House Required	Contact Contact	Funds Obligated
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2016	EE/CA		\$25,000	\$250,000	
2017	RD		\$50,000		
2018	RA		\$100,000	\$2,000,000	
2019	N/A		N/A	N/A	
2020	N/A		N/A	N/A	

ED-ES provides estimate of EE/CA based on number of samples, the size of the area, plan of action, etc. This is a programming estimate to be used for programming project start in appropriate FY.