

MALMSTROM AIR FORCE BASE, 564TH MISSILE SQUADRON,
SIERRA MISSILE ALERT FACILITY
Approximately 0.15 miles north of Brady East Road/ State Route 365
& 1.6 miles east of I-15
Brady vicinity
Pondera County
Montana

HAER MT-138-D
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
INTERMOUNTAIN REGIONAL OFFICE
National Park Service
U.S. Department of the Interior
12795 West Alameda Parkway
Denver, CO 80228

**HISTORIC AMERICAN ENGINEERING RECORD
MALMSTROM AIR FORCE BASE, 564th MISSILE SQUADRON,
SIERRA MISSILE ALERT FACILITY**

HAER No. MT-138-D

Location: Approximately 0.15 north of Brady East Road/State Route 365, and 1.6 miles east of Interstate 15 and Brady in the NE ¼ of Section 1, Township 26 North, Range 2 West, Pondera County, Montana,

UTM: Zone 12 / 440976 Easting / 5320798 Northing

Date of Construction: Constructed as a Minuteman II system in 1965-1966; converted to a Minuteman III system in 1975

Designer: Ralph M. Parsons Company, Los Angeles, California

Builder: Morrison Knudsen Company and Associates

Present Owner: U.S. Air Force (USAF), Malmstrom Air Force Base

Present Use: Deactivated Missile Alert Facility, 564th Missile Squadron, 341st Missile Wing

Significance: The Sierra Missile Alert Facility is one of five MAFs associated with the 564th, an Intercontinental Ballistic Missile (ICBM) squadron based at Malmstrom Air Force Base, Montana. An MAF houses the personnel and equipment required to remotely monitor, control and command operations of a group of 10 Minuteman missiles. Each missile is deployed in its own unmanned below-ground silo known as a Launch Facility (LF). An MAF's ten missiles surround its with each LF located at least 3 miles from the MAF.

The Sierra and the 564th Missile Squadron's (MS) four other MAFs were determined representative examples of the infrastructure and unique technological system developed in response to the nation's Cold War defense and strategic deterrence needs. As such, they are historically significant for their association with the late twentieth-century defense policy of the United States. Military leaders found the rural Montana countryside surrounding Malmstrom Air Force ideally suited the needs of the Minuteman program, being situated within striking range of the Soviet Union. Of greater importance was the region's low population density which meant comparatively minimal loss of life in the event of nuclear attack.

Additionally, the Sierra and the 564th MS's four other MAFs embody some key aspects defining the Minuteman's technological superiority over its ICBM predecessors. Among the most significant of those was the consolidation of monitoring, control and command operations for a group of 10 missiles at a single central command facility. A two-person crew sat locked on constant 24-7 duty in the MAF's small and cramped underground portion which contained the controls and equipped for initiating missile launch. On Presidential command, each of the two crew members inserted a launch key which signaled crews at other MAFs to insert their launch keys. Actual missile launch could occur within less than one minute.

The Sierra and 564th MS's four other MAFs are also significant as representations of the architectural evolution of the MAF. Although of blast-resistant hard construction, the underground control and command portion of the Minuteman I MAF was still highly-vulnerable to the severe ground tremors associated with the spread of nuclear radiation, while life support facilities were concentrated in the soft or non-blast resistant portion of the structure only. Minuteman II designers addressed the need for better survivability of personnel and equipment by upgrading the MAF's hard underground portion with life support facilities as well as shock absorbing devices to maintain the structure steady if hit by nuclear tremors. The new MAF was expected to sustain a livable environment for two weeks after attack. Conversion of a Minuteman II MAF to a Minuteman III retained these improvements.

The Sierra MAF is considered the showcase of the five MAFs within the 564th MS. Renovations to the MAF in the 1990s resulted in one of the best-maintained MAFs associated with the 564th MS. Its facility layout mimics that of the four other MAFs, although its orientation differs. The front elevation of the Sierra MAF faces west away from SR 365 while the facility entrance is on the south side. When the Sierra MAF was renovated in the 1990s, it had no alterations that resulted in major structural changes, such as the Romeo MAF, which was completely rebuilt above ground. The primary alteration to the Sierra MAF that differentiates it from the four other MAFs associated with the 564th MS was the replacement of the ceilings in the Launch Control Support Building (LCSB) during the 1990's renovations.

The mission plaque in the entry vestibule to the "soft" above-ground component, the LCSB, is dedicated to early Montana explorers and mountain men. The image in the corner of the mission plaque displays a black and white sketch of two explorers in conversation, complete with buckskin clothing with Native American beadwork and furs representing the early Montana frontier. The mission plaque reads:

"More than any other economic activity, the fur trade opened the West to American expansion. Trappers led the way for many settlers, and their names...are engraved in the region's history." – Gregory McMamee

Welcome to Sierra Missile Alert Facility

Montana, one of the last frontier states, enjoys a rich, adventurous history. Early mountain men set out in the exploration days of the westward expansion to make a living from the abundant wildlife. At Sierra Missile Alert Facility, we remember the adventurous mountain man lifestyle and recognize the historical romance of people exploring a new frontier.

The interior of the Sierra MAF exemplifies the consensus of the personnel onsite choosing the interior art themes of these facilities, as well as the Facility Manager. While the entry vestibule celebrates the heritage of exploration in Montana, the recreation room combines this heritage with a more modern theme of poker and archery. Framed images of Native American horsemanship are mixed with an archery target and poker-playing dogs.

Like the other MAFs, Sierra MAF has its own set of unique murals in the "hard" below-ground component of the facility, the Launch Control Center (LCC). The primary mural, located across from the elevator in the connecting tunnel between the two below ground capsules, displays a missile flying out of the state of Montana. To the left it reads, "On 20 August, 1980, MCCC Maj. L. A. McLaughlin and 1st Lt. R. A. Jackson launched a Sierra Minuteman III Missile from Vandenberg A.F.B., California. This launch was accomplished to test the effectiveness of the Minuteman III Weapon System." To the left, on the interior of the LLC blast door, is a Minuteman from the American Revolution on a

red, white, and blue background. The same character is carried over to the air-conditioning (AC) unit mural, which has the 564th emblem centrally located with the Minuteman on one side and a missile on the other. Above the central image it reads "Sierra-0 Carries On" and below it reads "The Minuteman Heritage." The wallpaper theme in this LCC represents a mountainous area, and like the other MAFs, also displays initials, dates, and images from final alerts.

ACRONYMS

AC	Air-conditioning
LCC	Launch Control Center
LCSB	Launch Control Support Building
LF	Launch Facility
MAF	Missile Alert Facility
MAFB	Malmstrom Air Force Base
MS	Missile Squadron
MW	Missile Wing
START	Strategic Arms Reduction Treaty
USAF	United States Air Force