



2019 Secretary of Defense

# Environmental Awards

Cultural Resources Management - Small Installation  
Malmstrom Air Force Base

## Introduction

Malmstrom Air Force Base (AFB), home to the 341st Missile Wing, defends the United States with combat-ready Airmen and nuclear forces. Located near Great Falls, MT, on the Missouri River, Malmstrom AFB encompasses 3,278 acres and serves 3,400 Airmen and civilians. The Installation is one of three Air Force Intercontinental Ballistic Missile installations. Malmstrom AFB operates a network of 15 Missile Alert Facilities (MAFs) and 150 Minuteman III Missile Launch Facilities (LFs). These two to three-acre sites provide a critical component of America's on-alert strategic forces, and the missile complex spans over 23,500 square miles with over 200 miles between the furthest LFs.

Activated in 1942, Malmstrom AFB was originally the Great Falls Army Air Base (AAB). The Installation supported Alaskan air crews. In 1995, the Installation's name changed to Malmstrom AFB in honor of Colonel Einar Malmstrom, the 407<sup>th</sup> Vice Commander, killed in an aircraft accident near Great Falls.

In October 1962, the first Minuteman launch facility went on alert in response to Soviet Union missiles discovered in Cuba and helped peacefully end the crisis. By 1967, the Installation operated 200 missiles throughout central Montana, later reduced to 150 missiles in the mid-1990s. Most of the historic facilities on Malmstrom AFB and throughout the missile network were constructed during the Cold War Era.



## Tribal Consultations

Colonel Jennifer Reeves, 341<sup>st</sup> Missile Wing Commander, and Mr. Conrad Fisher, Northern Cheyenne Tribe Vice President, discuss issues at the 2018 Tribal Relations Meeting. Face-to-face interactions greatly enhance the effectiveness of the Tribal consultation process.

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## Background

The Malmstrom Integrated Cultural Resources Management Plan (ICRMP) is a planning document that describes procedures and outlines plans for managing cultural resources. As typical for small Department of Defense (DoD) installations, Malmstrom AFB achieves ICRMP goals with staff who simultaneously manage multiple environmental programs. The Cultural Resources Manager (CRM) devotes 40% of her time to the Cultural Resources Program. The Installation Tribal Liaison Officer (ITLO), appointed by the Wing Commander, oversees effective and respectful tribal relationships and devotes about 5% of his time to tribal issues. The National Environmental Policy Act (NEPA) Program Manager assures cultural resources are properly addressed in all NEPA decisions. Contractor support varies but contributed roughly one full-time equivalent during the accomplishment period.

Malmstrom AFB completed a total ICRMP rewrite during the accomplishment period, incorporating Installation management tools with newly introduced Air Force Civil Engineer Center cultural resources management paradigms. The ICRMP goes through a rigorous annual review and staffing coordination, assuring effectiveness and facilitating cost-effective management planning, programming, budgeting, and execution.

Malmstrom AFB comprehensively surveyed and documented resources important to Installation history and the Cold War mission. Documentation and evaluation during the accomplishment period includes 214 buildings, structures, Minuteman Missile facilities, and other resources. Overall, the CRM surveyed all facilities over 50 years of age and consulted with the Montana State Historic Preservation Office (SHPO), documenting 170 facilities

eligible for listing on the National Register of Historic Places (NRHP) and 163 facilities not eligible. Malmstrom AFB refers to this documentation regularly to determine resources eligibility for the NRHP. All Malmstrom AFB MAF and LF sites are eligible for listing in the NRHP. A current program goal includes consulting on all facilities that turn 50 on or before 2021. In 2017, participants in the annual tribal relations meeting discussed the concept of a Programmatic Agreement (PA) to formalize tribal consultation protocols. A draft PA was presented to the tribes at the 2018 meeting for review and consideration. Malmstrom AFB will work through 2019 to execute the PA with the tribes.



### Minuteman Crew Console

The Malmstrom AFB Museum displays a Minuteman launch control center console. Partnerships between Malmstrom AFB and state and Federal historians promote cultural resources management.

Malmstrom AFB actively engages with the seven Federally recognized tribal governments in Montana covering members of 12 indigenous tribes. The ITLO and CRM engage the tribes on all undertakings that involve excavation of previously undisturbed land and have established procedures for unanticipated discoveries. If a tribe identifies an issue of concern, the ITLO and CRM work any identified matter to resolution.

Most of Malmstrom AFB is constructed on grounds that were extensively disturbed and

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graded prior to Congress establishing current cultural resources requirements. Qualified professionals have surveyed Installation land in less disturbed grounds, resulting in identification of one prehistoric archaeological site, a lithic scatter, and two prehistoric isolated finds. The newly surveyed sites are not eligible for NRHP listing. Qualified professionals completed a total of five additional archaeological field surveys and documented additional portions of the Installation and routes leading to missile field sites, identifying ten other prehistoric and historic isolated finds on private land immediately adjacent to missile field sites. The Malmstrom AFB zones of high and low impact from DoD-related activities have been mapped and evaluated the likelihood of encountering undiscovered intact archaeological resources. This documentation provides a solid foundation to assist the CRM with NHPA-regulated undertakings and proposed actions evaluated under NEPA.

The CRM attended NHPA Section 106 and Advisory Council on Historic Preservation (ACHP) training during the accomplishment period. This training bolstered in-house expertise and provided opportunities for peer networking. The ITLO also completed training, including an Air Force-hosted Native American Indian cultural, communications, and consultation course which included interface with all Montana tribes and numerous tribal members from across the United States.

## Summary of Accomplishments

### Overall Cultural Resources Management

Malmstrom AFB integrates cultural resources management considerations into Installation daily operations. As part of maintaining a conforming Environmental Management System (EMS), the Environmental Chief briefs Wing Leadership twice a year at the Environmental Safety and Occupational Health (ESOH) Council. This briefing informs

leadership of internal compliance audit results, on-going NHPA undertakings, NEPA actions, and environmental compliance issues. The EMS also employs a cross-functional team (CFT) of members representing all Malmstrom AFB organizations. The CFT meets quarterly to discuss issues, exchange ideas, and enhance environmental compliance.

### Tribal Relations

To develop and sustain relationships, the Malmstrom AFB Commander meets at least annually with tribal leaders, tribal historic preservation officers, and staff to affect deepening discussions. These established relationships foster Installation goals and simplify sovereign nation agreements when needed. The Installation drafted and implemented Malmstrom AFB's first Installation Tribal Relations Plan (ITRP). The ITRP provides the framework Malmstrom AFB will use to: establish positive short- and long-term relationships between the Air Force and tribes; maintain statutory compliance; and ensure the treaty rights of Federally recognized tribes are respected.



### 2017 Tribal Relations Meeting

Colonel Ron Allen, 341<sup>st</sup> Missile Wing Commander, and Colonel Marcus Glenn, 341<sup>st</sup> Mission Support Group Commander, meet with leaders of seven Montana tribes at the 2017 Tribal Relations Meeting. Malmstrom AFB works with affiliated Tribes to maintain compliance and respect treaty rights.

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The ITLO organized and implemented annual tribal relations meetings in 2017 and 2018, which were attended by all seven Federally recognized tribes located within Montana. Meetings provided a professional, but relaxed, venue to expand the knowledge base of both Air Force and tribal representatives. The ITLO displayed tribal flags, demonstrating respect to the seven Montana sovereign nations. Respecting tribal custom and tradition, the Wing Commander presented each tribal official with gifts of symbolic or ceremonial relevance to include Wing coins, bead craft, sweetgrass, and sage and cedar bundles. As an effort to establish a truly collaborative atmosphere, the Wing also invited members of the Montana Army National Guard, the United States Forest Service, and the United States Fish and Wildlife Service to discuss common issues and share cultural data.

### **State Historic Preservation Office Consultation**

Malmstrom AFB integrates cultural resources regulatory compliance into the NHPA project review process. The prehistoric cultural surveys and SHPO facility consultations enable the Installation to efficiently evaluate support requests using existing baseline information to assess historic property or cultural impact. Malmstrom had nine undertakings, evaluated in an Environmental Assessment, during the accomplishment period. Combining cultural and NEPA into one comprehensive document simplifies compliance requirements for public participation, analysis, and review. These Installation decision documents combine reviews and final determinations. Malmstrom AFB obtains appropriate concurrence, memorandums of agreement (MOA), or PAs with the Montana SHPO and other interested parties.

### **Programmatic Agreements and Memorandums of Agreement**

In 2002, the Installation completed the first PA between the Air Force, ACHP, and the Montana SHPO for missile complex stewardship and maintenance, recognizing the historical role played by Malmstrom AFB as President John F. Kennedy's *Ace in the Hole* during the Cuban Missile Crisis. The PA was reviewed, negotiated, revised, and updated in 2018 using in-house subject matter expertise. Effective relationships and proactive initiatives helped to achieve a five-year PA renewal, enabling continued maintenance and repair of historic assets without mission interruption.



### **President Kennedy's Ace in the Hole**

In response to the Cuban Missile Crisis, President John F. Kennedy's *Ace in the Hole* remains on alert today at Malmstrom AFB. Effective relationships and proactive initiatives helped to achieve a five-year Programmatic Agreement extension to preserve these historic assets without mission interruption.

Consultations for a second PA support conceptual discussions about the proposed Ground Based Strategic Defense Program. The Program proposes a major upgrade to the weapons system and significant reconfiguring, renovation, or replacement of almost all architectural infrastructure by 2030. Because of the 16-year existing relationship between the Installation, SHPO, and ACHP regarding these specific resources, the Air Force will be poised to implement this Program.

Architectural and prehistoric survey efforts completed by the Malmstrom AFB CRM

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revealed that some routine facility maintenance and repair may affect cultural resources potentially eligible for NRHP listing. To resolve this existing ambiguity, the CRM met with the Montana SHPO and developed a draft third PA. This draft agreement lays a foundation to define the scope of routine undertakings and enable five years of routine facility maintenance, repair, and minor construction. The parties expect to finalize and execute this agreement in 2019.

### **Mission Enhancement**

Malmstrom AFB program managers performed quality checks and review of 30 environmental Geographic Information System (GIS) layers during the accomplishment period. Layers are maintained in the Installation and Air Force geodatabases. Included in the Malmstrom AFB geodatabase is an Environmental Constraints layer designed as a planning tool to identify potential environmental planning constraints and encourage Installation-wide collaboration with the Environmental Office earlier in the planning process. Development and maintenance of a complete environmental GIS dataset allows for spatial analysis with data from other organizations such as utilities, more complete plans and program management, and the ability to identify trends and address non-compliance issues.

### **Milwaukee Road**

A segment of the historic Milwaukee Railroad lies within Malmstrom AFB boundaries. This area comprises those railroad-related landforms and associated roadbed, rails, ties, culverts, signs, switches, and other equipment originally operated by the Chicago, Milwaukee, St. Paul, and Pacific Railroad, colloquially known as the “Milwaukee Road.” The Montana SHPO determined the entire Milwaukee Road lines and depots are eligible for listing in the NRHP.

Malmstrom AFB staff exhaustively researched the history of the Installation’s segment. Working with qualified historian support assistance under Cooperative Agreements with Colorado State University and Texas State University, Malmstrom AFB completed an in-depth NRHP compilation and evaluation of the Milwaukee Road. Completed in 2018, this extensive two-year effort documents the segment history and provides detailed data and recommendations, should an undertaking ever potentially affect the historic railroad.

### **Missile Alert Facility Renovation**

Because of multiple meetings with the Montana SHPO, Malmstrom AFB paved the way for renovation of all 15 MAFs. The resulting MAF Renovation MOA will further document and photograph the unique architectural qualities and artwork at each missile alert facility and collect additional oral histories. Malmstrom AFB staff, surveying Cold War History, have already captured several oral histories from a cross-section of Missileers, documenting memories for future generations. The multi-year construction program will commence in Summer 2019.

### **SHPO Eligibility Consultations**

To achieve Malmstrom AFB ICRMP goals, the Installation methodically documents mission events and architectural history and consults with the Montana SHPO as facilities approach 50 years of age. The Installation inventoried and evaluated eligibility for 64 buildings during the accomplishment period and determined the buildings are not eligible for listing in the NRHP. The SHPO concurred with the findings. This systematic evaluation and documentation substantially reduces any further NHPA compliance requirements for these facilities and the 40 facilities already documented as not eligible. The evaluation, documentation, and determination are fiscally responsible, saving

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the Air Force hundreds of labor hours and tens of thousands of dollars by eliminating consultation and recordation requirements for future projects.

Malmstrom AFB tracks the age of all Installation facilities in a comprehensive Air Force database as part of the cultural resources management process. In collaboration with the Installation's Real Property Officer, the CRM tracks 170 potentially eligible historic properties, which justifies an additional 18% in sustainment funding.

### **Historic Wooden Bridge**



#### **Preserving the Past**

The O-11 Wooden Bridge was constructed in 1962 to provide access to local farms and ranches. In 2017, Malmstrom AFB completed historic documentation of the bridge, which has been submitted to the Library of Congress.

After years of faithful service, the historic wooden bridge in Fergus County, Montana providing the sole access route to LF O-11 and local farms and ranches began to show its age. The bridge was constructed in 1962 before large farm equipment became the norm. The Air Force proposed to replace the O-11 bridge, providing the added benefit of enhancing local community access. The Montana SHPO previously determined that all wooden bridges of this construction type meet NRHP criteria for

eligibility. The proposed undertaking to demolish the existing bridge and replace it with a modern structure would have an adverse effect on a historic property.

The CRM documented an extensive cultural survey and analysis of the wooden bridge. Four alternatives were considered, but any attempt to repair the structure would just put a band aid on a structure deemed functionally obsolete under the Federal Highway Administration's National Bridge Inventory. The CRM consulted with the Montana SHPO, and the decision was made to complete Historic American Engineering Record (HAER) documentation of the structure. Assisted by a local architecture firm and a photographer well-versed in HAER requirements, the CRM complied with all O-11 Bridge MOA requirements and submitted the HAER package to the SHPO and ACHP in early 2017 for submittal to the Library of Congress.

### **Malmstrom AFB Environmental Impact Analysis Program**

The Malmstrom AFB NEPA/Environmental Impact Analysis Program (EIAP) Manager coordinates with the CRM to review all proposed Federal actions that may affect the environment. The NEPA process uses a team of environmental, safety, occupational health, fire department, and legal subject matter experts to review proposed actions for environmental issues and NEPA compliance. In addition, the EIAP Manager reviews all real property transactions and when appropriate completes an Environmental Baseline Survey, evaluating potential environmental contamination, cultural resources, and natural resources issues presented by the proposed real property transaction.

Malmstrom AFB typically begins the consultation process for all NEPA projects by

mailing written notice to interested government agencies and all seven tribal Governments associated with the Installation. The ITLO briefs attending tribes on upcoming projects at annual tribal relations meetings. The CRM or ITLO follow up on specific proposed actions using email or telephone discussion, seeking tribal input. Malmstrom AFB leadership is briefed twice per year at the ESOH Council on the status of NEPA actions. Implementing a well-established process, the EIAP Manager and team reviewed over 600 proposed actions to ensure cultural resources compliance, exceeding ICRMP stewardship goals.



### Cultural Survey

Archaeologists excavate a shovel test pit, surveying for prehistoric artifacts. The effort was completed as part of the Malmstrom AFB NEPA process.

The EIAP Manager directed a cultural survey to assess potential impacts from constructing a proposed C-130 Assault Landing Zone. The candidate site contains no structures but had not been assessed for prehistoric archaeology. The site investigation was completed by a joint effort including contractors and archaeologists from Colorado State University and the University of Montana, excavating 32 shovel test pits along three transects and documenting the absence of prehistoric artifacts at the site. The tribes had no comment, and the SHPO concurred with a No Effect determination.

### Community Relations

Malmstrom AFB is committed to public outreach and education. The Environmental Flight and Public Affairs created an external website to publish NEPA documents and inform and educate Malmstrom AFB personnel and the public. The Environmental Element hosted several environmental outreach programs including Earth Day, Kids Fishing Day, youth environmental programs at the Grizzly Bend Club, and outreach to local Boy Scouts of America groups.

Internal communications include weekly heritage articles distributed through Installation-wide emails, conveying history of Malmstrom aircraft missile operations, and broader Air Force and DoD historical events. Newcomer orientation briefings and direct briefings with Unit Environmental Coordinators appointed for each Malmstrom AFB organization help enlighten and emphasize Cultural Resources Program issues.

Malmstrom AFB continues to make significant progress promoting effective cultural resources management through proactive stewardship of the extensive and rich heritage in the Great Falls Montana area. Installation strength is exemplified in outstanding partnerships with regulatory entities and American Indian tribes. Meticulous master planning and coordination ensures continuity of a critical and evolving nuclear military mission.