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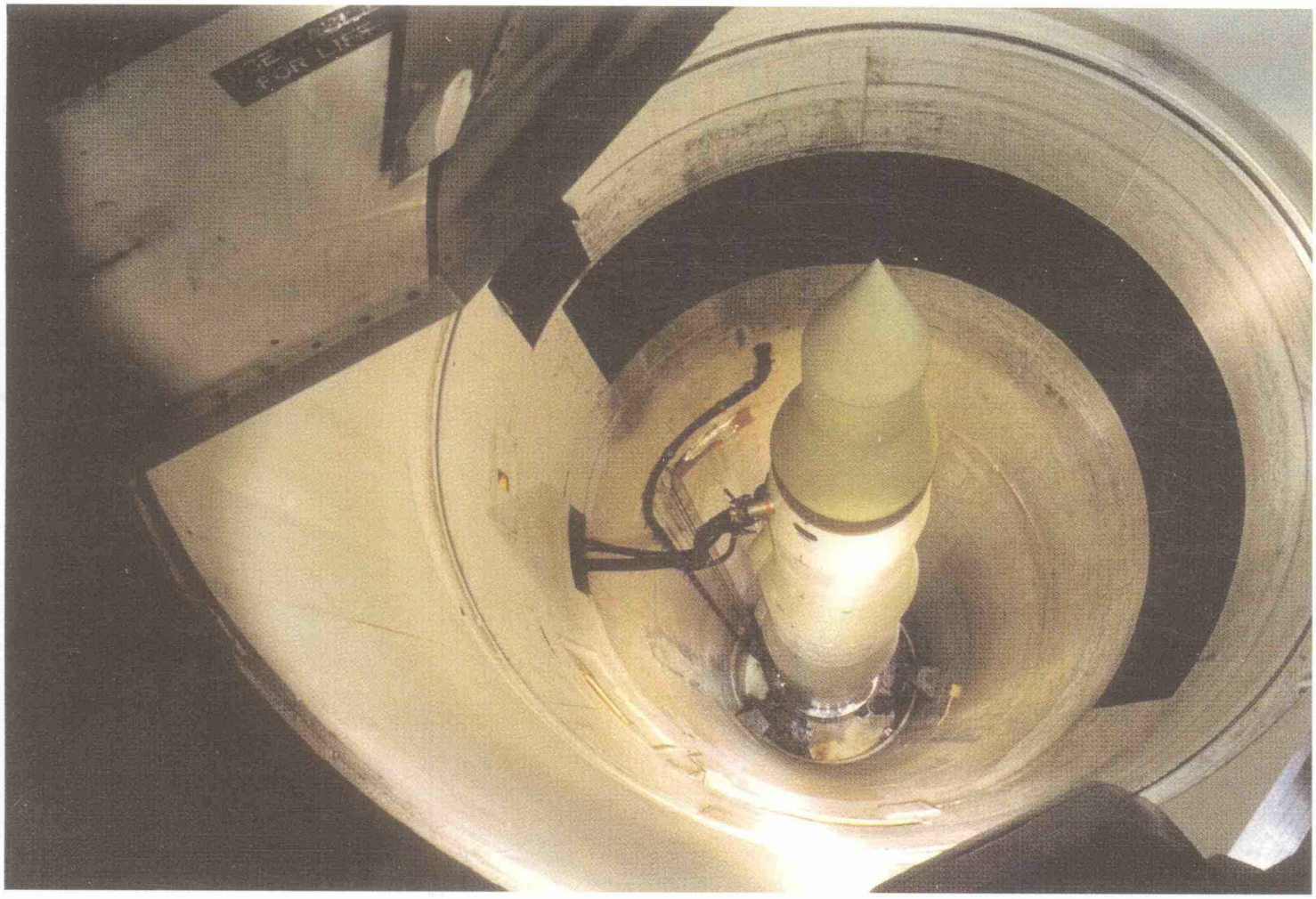
National Park Service
U.S. Department of the Interior

Minuteman Missile National Historic Site
South Dakota

Minuteman Missile National Historic Site
Long-Range Interpretive Plan



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Cover photograph: Looking down into the missile silo at Delta-9 Launch Facility of Minuteman Missile National Historic Site.

LONG-RANGE INTERPRETIVE PLAN

Minuteman Missile National Historic Site

October 2006

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INTRODUCTION

The resources and themes within the National Park System can evoke a variety of feelings within individual visitors. The people, places, events, and things that comprise our national park stories can move us. Like the resources and themes in other park areas, those at Minuteman Missile National Historic Site (NHS) can stir us and quiet us, and affect us spiritually, emotionally, intellectually, and physically — especially when entering a launch control center or getting up close to an intercontinental ballistic missile (ICBM). Established by Congress in 1999, Minuteman Missile NHS preserves sites that include a nuclear missile launch facility (silo) and a launch control facility. From these and hundreds of other facilities in seemingly isolated prairie locations, U. S. Air Force officers were poised to launch ICBMs at targets in the Soviet Union from 1962 through the early 1990s. With the turn of keys, nuclear missiles would have been exchanged with the Soviet Union, making real one of the greatest fears of the 20th Century: nuclear war.

The Cold War era (1946-1991) was a time when the fear of nuclear apocalypse manifested itself in all aspects of everyday life. Books, movies, television, art, and music reflected the impact of the atomic bomb. Death from nuclear warheads raining down from the Soviet Union was considered a very real possibility, leading to debates about fallout shelters, deterrence, and mutual assured destruction.

In 1991, President George H.W. Bush and Soviet Premier Mikhail Gorbachev signed the Strategic Arms Reduction Treaty (START), placing a limit on the number of nuclear warheads and outlining a process for the demolition of some existing systems, including the Minuteman II missile defense system. As the demolition of the 450 Minuteman II sites proceeded, Air Force and National Park Service employees worked together to preserve two sites in South Dakota. Early recognition of the location's significance provided a unique opportunity to save intact this important piece of our human history.

The task now is to understand the historic role of the Minuteman Missile defense system in the broader context of the Cold War. The technology and structures that make up Minuteman Missile NHS remind us of the many lives that are part of this story: the thousands of men and women of the United States Air Force who served around the clock, constantly prepared, should the President so order it, to launch nuclear tipped missiles; the contractors who built the sites, finishing three weeks ahead of schedule despite the enormity of the task, labor disputes, and South Dakota's challenging weather; and the people in local communities — both for and against the missile sites — who lived out their daily lives in sight of nuclear weapons.

Although the site has been opened to the public on a limited basis since 2004, there is still a lot of planning to be done. Through a reservation system, visitors are guided through the above ground and below ground structures of a former Minuteman Missile Launch Control Facility known as Delta-01, and and to a former Launch Facility known as Delta-09. Delta-09 includes a missile silo containing a training model of a Minuteman II missile. Although it was not secret, Delta-01 was seldom seen by civilians after it was completed in 1963. Modified only slightly through its thirty years of continuous service, the site is an excellent example of a Cold War missile system. Operated by crews from nearby Ellsworth Air Force Base, Delta-01 was part of the 44th Missile Wing. Launch control officers, known as missileers, were stationed in the underground launch control centers for 24-hour shifts. These young men and women had the the ability to launch 150 Minuteman II missiles, a fraction of the 1,000 ICBMs that were once deployed in the upper Great Plains.

Minuteman Missile NHS is not just significant to the people who lived and served in South Dakota. The Cold War dominated the last half of the 20th century for people all over the globe, and nuclear missiles — along with the mushroom cloud they would have produced upon detonation — became icons of the age.

This planning document, called a Long-Range Interpretive Plan, will guide — by recommending a combination of personal services and interpretive media — this new park's staff as they answer visitors' questions such as: Why did we first build the Minuteman missile system? Why was it never used? What would the outcome have been if it had been? Reliance upon missile systems is not yet history, but the Soviet Union, once America's Cold War enemy, has dissolved. The challenge of Minuteman Missile NHS is to gather the stories of the men and women who lived through the Cold War to further our understanding of a time that current events has made seem both more distant and, yet, more relevant than ever before.

Adapted from an article by Sue Lamie, (former) Historian at Minuteman Missile NHS

PLANNING FOR MINUTEMAN MISSILE NHS

General Management Plan

Within the National Park Service (NPS) planning hierarchy described in NPS Management Policies 2001, a park's General Management Plan (GMP) guides management decisions over an approximately 10 to 15-year period. The purpose of each GMP is to ensure that the park has a clearly defined direction for resource protection and visitor use. Specific recommendations in the GMP will: 1) clearly define the desired natural and cultural resource conditions and visitor experiences to be achieved and maintained; and 2) identify the kinds and levels of management activities, visitor use, and development that are appropriate for achieving and maintaining the desired conditions.

The NPS began work on the draft General Management Plan/Environmental Impact Statement (GMP/EIS) for Minuteman Missile National Historic Site (NHS) in 2001. The draft GMP/EIS is based on full and proper utilization of scientific information related to existing and potential resource conditions, visitor experiences, environmental impacts, and relative costs of alternative courses of action. The site's draft GMP/EIS was reviewed by the regional office and WASO during the first half of 2006. Initially, public review of a draft document was to be in 2003, but an Alternative Transportation System Plan postponed the draft GMP/EIS. Recent data contributing to the environmental impacts, costs, and benefits of alternative sites for the future visitor center influencing the choice of the preferred alternative in the draft GMP/EIS, along with staffing restraints at the Denver Service Center, have further postponed the document. The 60-day public review is scheduled for the second half of 2006.

The draft GMP will present and analyze four alternative directions for management and use of Minuteman Missile NHS. Alternative 4, "Cold War Symbols," is the NPS Preferred Alternative. The concept of Alternative 4 is to preserve and present Minuteman Missile NHS as symbols commemorating the history and significance of the Cold War, the arms race, and the ICBM in the second half of the 20th Century. In addition to interpreting the meanings and universal concepts associated with the site, interpretation would also include the entire story of Minuteman Missile NHS and focus on evoking an understanding of the operational character of Delta-01 and Delta-09 as the United States' commitment to the mission of maintaining world peace.

The final GMP will direct interpretive approaches and desired visitor experiences within prescribed management zones at Delta-01 and Delta-09, and will make a decision for locating the site's visitor center facility. However, the interpretive media, educational programs, and personal services are incorporated within all of the management zones and are generally independent of whichever alternative (or elements thereof) is selected and approved.

Long-Range Interpretive Plan

Also within the NPS planning hierarchy, a park's Long-Range Interpretive Plan (LRIP) is one of a handful of strategic plans, or park plans, under the GMP that provides the next level of planning that covers a period of approximately five years. The LRIP is the keystone of the Comprehensive Interpretive Planning (CIP) process described in NPS Director's Orders 6. Once an LRIP is approved, the park staff will continue the CIP process by implementing the LRIP through a series of Annual Implementation Plans (AIPs). Throughout the CIP process, the park staff will also compile and maintain an Interpretive Database (ID) which documents the park's personal services, education programs, and interpretive media.

This LRIP for Minuteman Missile NHS was created in 2004-05 with input from the park's partners. It describes visitor experience goals and recommends ways to achieve those goals through interpretive media, education programs, and personal services. The LRIP's recommendations are projected over the next five to ten years. These actions are dependent on the timely receipt of funds and the level of cooperation from the park's partners. This LRIP is a guide for park management to reach the "ideal future vision" for the interpretive services and media for park visitors. Managers may need to adapt this LRIP's ideal future vision based on current and projected fiscal and political realities.

EXECUTIVE SUMMARY

Minuteman Missile National Historic Site (NHS) — located in southwestern South Dakota — is administered under a National Park Service (NPS) superintendent who manages the park from an office 20 miles east of Wall, South Dakota. The site was established in 1999 when President Bill Clinton signed into law the Minuteman Missile National Historic Site Establishment Act. The U.S. Air Force transferred administration of Delta-01 and Delta-09 to the NPS in 2002.

The NPS owns 7.85 acres (6.35 at Delta-01 and 1.5 at Delta-09). The site receives cooperation from Ellsworth Air Force Base (AFB), the South Dakota Air and Space Museum, the Association of Air Force Missileers, and the Cold War International History Project among others. The site's staff as of 2005 is composed of a Superintendent, a Cultural Resource Specialist, a Visitor and Resource Protection Ranger, a Maintenance Mechanic, an Interpretation and Visitor Service Ranger, and an Administrative Clerk.

This Long-Range Interpretive Plan (LRIP) provides a vision for the future of interpretation at Minuteman Missile for the next 5 to 10 years. The LRIP describes desired visitor experiences and recommends appropriate means to achieve them while protecting and preserving the park's natural and cultural resources. The first section of this LRIP, from pages 1 to 38, confirms the foundations of the park: its purpose, significance, interpretive themes, visitor profiles, visitor experience goals, issues and influences, and existing conditions.

The LRIP's second section, starting on page 39, recommends actions to be taken by the park staff and its partners over the next 5 to 10 years to improve the park's interpretive media and personal services and provides an achievable implementation strategy.

Based on projected funding and timing for the plans for a new park visitor facility, it was agreed during a LRIP Workshop in October 2004 that the project office/headquarters for Minuteman Missile NHS will most likely be in its current location for at least the next four years. Therefore, recommendations in this LRIP are divided into short-term actions that can be taken in the next 1 to 4 years (2005 through 2008) and long-term actions that can be taken in the 5 to 10 years after this LRIP is approved (2009 through 2013) and beyond.

This LRIP's future interpretive services and media recommendations for Minuteman Missile NHS are summarized on the following three pages. For more information, readers can refer to the Implementation strategy on pages 87-95 that lists the tasks and steps recommended to achieve this plan's vision; full details and background information are found in the body of the LRIP, whose contents are listed on pages x-xi.

Short-Term Recommendations

- **Visitor Facilities:** Purchase a second modular building and place it next to the Project Office, build an interpretive deck between the two modular buildings, build facades/screens, and install a flagpole. Initiate a parkwide Sign Program for signs along I-90 and SD Hwy 240 to direct motorists to the Visitor Center, Delta-01, and Delta-09.
- **Exhibits:** Contract to plan, design, produce, and install interpretive panels and exhibit cases in a new modular building, as well as outdoor interpretive panels for large artifacts on the interpretive deck. Purchase and install exhibit "track" lighting for the panels and cases. Order "Park Identity" and "Visitor Center" signs (with the NPS arrowhead) that conform with the NPS Graphic Identity Program; install them on/near the modular buildings.
- **Audiovisual:** Continue collecting oral histories from missileers and others. Develop an audio kiosk to allow visitors to hear segments of oral histories. Develop a DVD on how Minuteman Missile NHS was created. Acquire and convert historic footage of Minuteman II missiles being tested to DVD format. Develop a "virtual tour" of Delta-01 and Delta-09 in DVD format that can be used by visitors who are not able to go on a ranger-led tour.
- **Wayside Exhibits:** Contract to plan, design, produce, and install an upright kiosk and a few (number to be determined) small low profile wayside exhibits on the interpretive deck outside the visitor center. For the Delta-01 Launch Control Facility, plan, design, produce, and install one upright wayside exhibit and a low profile wayside for the parking area outside the gate. For the Delta-09 Launch Facility, plan, design, produce, and install three low profile wayside exhibits and one upright wayside exhibit for the parking area outside the gate.
- **Publications:** Develop a Scope of Sales Statement that considers and lists the publications needed, intended audiences, distribution locations, quantities and frequencies of printings, and storage.
- **Website:** As the Washington Office implements the new NPS websites' Content Management System (CMS) in 2006, update the park website, build a "Virtual tour of Minuteman Missile NHS sites," and incorporate the park tour registration system into the park website.
- **Interpretive Programs:** Offer ranger-led tours (12 people/tour) in: Summer: 4 tours a day (as staffing allows), Mondays through Fridays Fall: 2 tours a day (10:00 - noon; 1:30 - 3:30) Tuesdays & Thursdays Winter: 1 tour each day (10:00 - noon) on Tuesdays & Thursdays Spring: (same as Fall schedule above)
- **Education Programs:** Write a grant proposal to develop a park educational website, draft a program to utilize long-distance learning technology, and develop a parkwide Education Program and strategy.

Long-Term Recommendations

- **Visitor Facilities:** When the GMP for Minuteman Missile NHS is approved, it will determine the general location (i.e., off of exit 127 or exit 131) for the future visitor center/administration facility. The recommendations presented below can be applied to either location.
- **Signs:** Expand the park Sign Program for motorists and pedestrians to the new Visitor Center off of Interstate 90 and to the parking lots.
- **Sculpture:** Contract to plan, design, produce, and install a life-size bronze sculpture of both U.S. and U.S.S.R. launch control consoles (and other entry plaza area architectural interpretive elements) outside the future visitor center.
- **Exhibits:** Contract to plan, design, produce, and install exhibits in the future visitor center's exhibit area of approximately 2000 sq. feet.
- **Audiovisual:** Develop a "park film" to be used as the park's primary audiovisual program in the future visitor center auditorium. Produce videotapes (or DVD format) to be part of the future visitor center's exhibits. Install cameras and related equipment at strategic locations at Delta-01 and Delta-09 to show real-time tours of those sites at the future visitor center and for long-distance learning venues.
- **Wayside Exhibits:** Contract to plan, design, produce, and install an upright wayside exhibit and bulletin case for outside the future visitor center. Produce porcelain panels to replace the short-term panels that were planned, designed, and produced earlier for the Delta-01 Launch Control Facility and the Delta-09 Launch Facility. Plan, design, produce, and install wayside exhibits at the six NPS units in the Black Hills region to encourage visitation to all those NPS units. Plan, design, produce, and install wayside exhibits at rest areas along I-90 and other locations in the Black Hills area to interpret the resources of and encourage visitation to Minuteman Missile NHS.
- **Media for the South Dakota Air and Space Museum:** Contract to upgrade the existing audiotape that interprets the test console from the Minuteman II missile LCC. Contract to plan, design, produce, and install new exhibits that interpret the Minuteman Missile system and orient museum visitors to Minuteman Missile National Historic Site. Plan, design, produce, and install two or three (number to be determined) low profile wayside exhibits for outdoor aircraft; then plan, design, produce, and install approximately 25 (number to be determined) low profile wayside exhibits for all outdoor aircraft.
- **Publications:** Develop a park "for sale" publications plan that considers and lists the types of publications that might be sold in the cooperating association's bookstore in the future visitor center.
- **Website:** Hire a contractor to revise and update the park's website.

- **Interpretive Programs:** Starting in 2012 (or when the visitor center is opened), offer ranger-led tours to Delta-01 and Delta-09 in:

-- Summer (Memorial Day through Labor Day): 6 tours a day, seven days a week with up to 18 visitors per tour.

-- Fall (the month of September): 4 tours a day, seven days a week with up to 18 visitors per tour.

-- Winter (October through April): 2 tours per day, seven days a week with up to 18 visitors per tour.

-- Spring (the month of May): 4 tours per day, seven days a week with up to 18 visitors per tour.

- **Education Programs:**

Develop a Long Distance Learning Program in partnership with the K-nection Educational Network. (At the beginning of 2006 the site had all necessary equipment online and ready for program activities.) Provide programs weekly on an "as needed" basis to schools throughout the state of Nebraska, and expand the program over the next few years to schools throughout the Great Plains region. Eventually the program will be available to all participating schools in the United States. If Long Distance Learning technology is expanded to foreign countries, the park will be prepared to offer programs to associated learning institutions in those countries as long as staffing permits.

Once the new visitor center facility is completed, develop special educational programs to be held in the visitor center that would include civic engagement, Cold War panel discussions, and Cold War pop culture events such as film festivals. Community events could include panel discussions and "special guest" programs featuring area land owners and community members sharing their views of the Minuteman II missile fields. Also, long distance learning technology could be used to facilitate international talks and conferences here.

This LRIP is a strategic plan that may need to be updated during its 5 to 10-year lifespan. Achievement of the recommendations that are briefly listed in this "Executive Summary" (and are described in detail in this LRIP's "Future Interpretive Program" section) remains subject to the park's funding and its relationships and coordination with its partners. The park's Annual Implementation Plans (AIPs) — that the park staff is responsible for writing and implementing — will take this LRIP's strategic vision and break it down in each AIP to the next achievable steps. These AIP steps, through which the the LRIP is implemented, are the most important parts of the Comprehensive Interpretive Planning (CIP) process.

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BACKGROUND for PLANNING

LEGISLATIVE BACKGROUND

The Strategic Arms Reduction Treaty (START), which U.S. President George H.W. Bush and Soviet leader Mikhail Gorbachev signed in Moscow, Russia, on July 31, 1991, stated that the United States and the Soviet Union would reduce their number of strategic weapons worldwide. Soon after, the U.S. Air Force began deactivating their entire Minuteman II Missile force. Among the sites that were deactivated were the 150 missile silos and 15 launch control facilities of the 44th Missile Wing at Ellsworth Air Force Base in South Dakota.

In 1992, officials from the National Park Service and Air Force signed an interagency agreement that arranged to temporarily preserve two representative Minuteman II missile sites at Ellsworth Air Force Base: the Delta -01 Launch Control Facility (launch control center), and the Delta-09 Launch Facility (missile silo).

In 1993, the National Park Service began a special resource study of Delta-01 and Delta-09. The Minuteman Missile Sites Special Resource Study Team — which included representatives from the National Park Service, the U.S. Air Force, the U.S. Air Force Museum, the South Dakota Air and Space Museum, the South Dakota Historic Preservation Center, and the Ellsworth Heritage Foundation — spent much of 1994 evaluating the possible preservation of Delta-01 and Delta-09. Their Special Resource Study was completed in 1995.

In 1998, South Dakota Senators Tom Daschle and Tim Johnson introduced a bill in Congress to establish Minuteman Missile National Historic Site (NHS), and Congress held testimony on that bill. The bill failed to pass in 1998 and was reintroduced the following year to the 106th Congress.

On November 29, 1999, both the House of Representatives and Senate passed legislation (Public Law 106-115) which established Minuteman Missile National Historic Site. The first page of this Act of Congress is shown on the next page; the entire bill can be seen in Appendix A at the end of this planning document. Also in Appendix A is a statement by Mr. Tim Pavek that was given before the Subcommittee on National Parks and Public Lands and the House Committee on Resources on September 14, 1999.

Public Law 106–115
106th Congress

An Act

Nov. 29, 1999
[S. 282]

To establish the Minuteman Missile National Historic Site in the State of South Dakota, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Minuteman Missile National Historic Site Establishment Act of 1999.
16 USC 461 note.

SECTION 1. SHORT TITLE.

This Act may be cited as the "Minuteman Missile National Historic Site Establishment Act of 1999".

SEC. 2. FINDINGS AND PURPOSES.

(a) FINDINGS.—Congress finds that—

(1) the Minuteman II intercontinental ballistic missile (referred to in this Act as "ICBM") launch control facility and launch facility known as "Delta 1" and "Delta 9", respectively, have national significance as the best preserved examples of the operational character of American history during the Cold War;

(2) the facilities are symbolic of the dedication and preparedness exhibited by the missileers of the Air Force stationed throughout the upper Great Plains in remote and forbidding locations during the Cold War;

(3) the facilities provide a unique opportunity to illustrate the history and significance of the Cold War, the arms race, and ICBM development; and

(4) the National Park System does not contain a unit that specifically commemorates or interprets the Cold War.

(b) PURPOSES.—The purposes of this Act are—

(1) to preserve, protect, and interpret for the benefit and enjoyment of present and future generations the structures associated with the Minuteman II missile defense system;

(2) to interpret the historical role of the Minuteman II missile defense system—

(A) as a key component of America's strategic commitment to preserve world peace; and

(B) in the broader context of the Cold War; and

(3) to complement the interpretive programs relating to the Minuteman II missile defense system offered by the South Dakota Air and Space Museum at Ellsworth Air Force Base.

SEC. 3. MINUTEMAN MISSILE NATIONAL HISTORIC SITE.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—The Minuteman Missile National Historic Site in the State of South Dakota (referred to in this Act as the "historic site") is established as a unit of the National Park System.

(2) COMPONENTS OF SITE.—The historic site shall consist of the land and interests in land comprising the Minuteman II ICBM launch control facilities, as generally depicted on the map referred to as "Minuteman Missile National Historic Site", numbered 406/80,008 and dated September, 1998, including—

(A) the area surrounding the Minuteman II ICBM launch control facility depicted as "Delta 1 Launch Control Facility"; and

(B) the area surrounding the Minuteman II ICBM launch control facility depicted as "Delta 9 Launch Facility".

The first page (above) of Public Law 106-115 which Congress passed on November 29, 1999 that established Minuteman Missile National Historic Site. The entire bill can be seen in Appendix A.

PURPOSE

Purpose statements tell why a unit of the National Park System was set aside.

The purpose of Minuteman Missile National Historic Site, taken directly from its enabling legislation, is:

(1) to preserve, protect, and interpret for the benefit and enjoyment of present and future generations the structures associated with the Minuteman II missile defense system;

(2) to interpret the historical role of the Minuteman II missile defense system

> (A) as a key component of America's strategic commitment to preserve world peace; and
>
> (B) in the broader context of the Cold War; and

(3) to complement the interpretive programs relating to the Minuteman II missile defense system offered by the South Dakota Air and Space Museum at Ellsworth Air Force Base.

SIGNIFICANCE

Significance statements capture the essence of Minuteman Missile National Historic Site's importance to our country's natural and cultural heritage. Significance statements do not inventory the site's resources; rather, they describe its distinctiveness and help to place the national historic site in its regional, national, and international contexts. They clearly define the most important things about the site's resources and values. Significance statements answer questions such as why are the resources at Minuteman Missile NHS distinctive? What do they contribute to our country's natural and cultural heritage? Defining the site's significance helps managers make decisions that conserve the resources and values necessary to accomplish the legislative purpose of Minuteman Missile National Historic Site.

Minuteman Missile National Historic Site is significant because:

- The Minuteman II intercontinental ballistic missile (ICBM) facilities known as Delta-01 and Delta-09 are the best preserved examples of the operational character of American history during the Cold War.
- The facilities are symbolic of the dedication and preparedness exhibited by the missileers of the U.S. Air Force stationed throughout the upper Great Plains in remote and forbidding locations during the Cold War.
- The facilities provide a rare opportunity to illustrate the history and significance of the Cold War, the arms race, and ICBM development.
- Delta-01 and Delta-09, as represented through the 44th Strategic Missile Wing, highlight the traditional values, training, and esprit de corps of military personnel from the U.S. Air Force, the Strategic Air Command, and Ellsworth Air Force Base and their undeterred commitment to defend the country.
- The facilities represent unparalleled engineering feats and collaboration between military personnel and civilian contractors in the design, construction, activation, and maintenance of the upper Great Plains Missile Fields.
- Delta-01 and Delta-09 remain as examples the ability of the American people to construct in a short period of time, complex facilities that would not only serve as a protection against others that have similar power but also withstand the test of time.
- The site is a symbol of the courage and patriotism of local residents.
- Although the Minuteman missile system was a catalyst for rural electrification, road improvements, and economic development, the facilities also exemplify the historic concerns among rural South Dakota communities and ranchers toward land ownership issues and potential disruptions of their traditional "western way of life."

(continued on next page)

Minuteman Missile National Historic Site is significant because:

- The facilities offer opportunities for civic engagement, discussion, and debate on past, present, and future ramifications of the Cold War era and the country's missile defense program.
- Delta-01 and Delta-09 allow access for national and international visitors to seldom-seen military technology and the powerful tangible cultural resources that may have had a profound impact upon their political and social ideals.

MISSION STATEMENT

Minuteman Missile National Historic Site represents an unprecedented window of opportunity for visitors worldwide to view and contemplate a significant period of United States and world history. It is the story of the Cold War and how it affected our lives. It is the story of the Air Force's role in the defense of our nation. It is the story of the people of southwestern South Dakota who lived alongside the Minuteman II missile defense system. This is our mission at Minuteman Missile National Historic Site: to tell and conserve these stories, as represented in the historic structures, museum collections, oral histories, and cultural landscapes, for future generations. Interpretation will be presented in a respectful and non-biased manner. Resources will be conserved unimpaired through professional planning and operations. Low impact and inspirational visitor services will be safely provided. And a proficient team of National Park Service employees and partners will guide Minuteman Missile National Historic Site into the future.

INTERPRETIVE THEMES

The primary purpose of interpretation is to facilitate intellectual and emotional connections from the park resources to each visitor's experience/background so that they will understand, appreciate, and help preserve the park. The following list begins to make that connection by listing some of the park's tangible resources and some intangible concepts that today's visitors may associate with the tangible resources:

Tangible (Resources)	Intangible (Meanings)
Launch Control Center.....	responsibility, duty, training,isolated, technology, lasting construction
Garage	maintenance, upgrades, protection
Launch Control Facility	preparedness, boredom, recreation, cookie-cutter, nondescript, living quarters, support
Antenna Arrays	communications, technology
Sewage Lagoon	hierarchy of needs, self reliant
Helicopter Pad	quick response
Cathodic Protection Rectifier ...	hidden protection
Perimeter Fence	protection, secrecy, warning
Recreational Courts/Equipment ..	boredom, fitness
Prairie Grasslands	openness, isolation, sublime
Elevator Shaft	confinement, security, seclusion
Newman Ranch	western way of life
Magazines/Books	recreation, retrograde, leisure
Blast Door	sabotage, secrecy, balance, hardened protection, intricate, nuclear surety
Conduits/Pipes	infrastructure, support
Generator/Well/Comm System ...	self-reliance, preparedness
Gun Lockers/Armory	security, danger
Peace Keeper	timeliness, safety, intimidation
Air Handling System	fear of chemical/radiological attack
Day Room	relaxation, boredom
Kitchen	basic needs
Bunk Beds	privacy, standardization

Tangible (Resources)	Intangible(Meanings)
Launch Facility.....	remote, peaceful, cold, forbidding
Personnel Hatch.....	security
Security System.....	monitoring, safeguard
2 Aircraft Seats.....	failsafe
Code Burner.....	secrecy, low-tech
Escape Hatch.....	devastation, Armageddon
Livestock.....	pastoral, West, land use
Color Scheme.....	retrograde, styles, change, obsolescence
Launch Facility Support...	structure support, backup
Azimuth Markers.....	obsolescence, targeting, old technology
Minuteman II Missile.....	power, strength, protection, security, fear, suspicion, showdown, enemies, destruction
Silo.....	hidden, protection, hardened

The list above and on the previous page is not an all-inclusive list. NPS rangers/interpreters, park partners, and media specialists should use this list and the interpretive theme statements on the next pages as a starting point when developing the park's personal services, education programs, and interpretive media.

NOTE: Other resources that may be added to this list include:
Launch Door, HICS Cable, 3-Phase Power, Interstate-90, Weather vane, Fuel Tanks,Viewshed, Wall Drug Sign, Notes/Binders/Files, Art/Murals, Vintage Electronics, Staff Photos, Entrance Mat, Umbilicals, Launch Code Box, Transporter Erector Pylons/Latches, Two aircraft seats

Connecting interpretive themes to each non-personal and personal services provided in the park area is a key element for interpretive programming. The connections assist to establish the best role for each nonpersonal and personal service. Minuteman Missile NHS has the unique status as a start-up park area. As such, its interpretive themes may be linked to most, if not all of its initial services in order to compare and contrast the most cost effective approach to provide the optimum visitor experience. Possible connections are explored in the Long-term Recommendations section of this plan. Further analysis and the most preferred connections will be presented through the Annual Interpretive Plans (AIP) that tier-off of this document. Each AIP can include a matrix that indicates the appropriate interpretive themes for each non-personal and personal service proposed for development and implementation each successive year.

Interpretive Theme Statements

Interpretive themes convey park significance and highlight intangible meanings and universal concepts associated with park resources. As visitors experience and learn about the resources at Minuteman Missile NHS, it is the responsibility of the park staff and volunteers to facilitate intellectual and emotional connections — as described on page 8 — from the park's tangible resources to the intangible meanings so that each visitor can make their own personal connection to the park's resources and significance. Visitors to Minuteman Missile NHS should have the opportunity to be exposed to the following themes — the building blocks on which the park's interpretive program is based — through its personal services program, the interpretive media, or both.

The following theme statements — and the sub-themes under each — were developed by the park staff in 2004:

1. Cold War:

The Cold War was one of the most significant national and international events of the last half of the 20th Century. Cold War activities influenced political, economic, educational, and social programs throughout the United States, the Soviet Union, and other nations. In the Cold War, the "front line" was everywhere.

- Delta-01 and Delta-09 represent the alert status and operational character of American military history during the Cold War.
- The military strategy during the Cold War was based, to a large degree, on developing a missile defense system that was never used.
- The Minuteman missile defense system represents the U.S. government's policy of strategic deterrence of aggression at the height of the Cold War.
- There was a great sense of national emergency during the development and deployment of the Minuteman missile defense system. We were keeping the "bear at bay."
- The Cold War era encompasses a time of secrecy, mystery, and intrigue; today, Minuteman Missile NHS rolls back the curtain of time and permits the public to view and learn about the history of the Cold War, the arms race, and ICBM development.
- For almost 40 years, travelers in South Dakota and other parts of the Great Plains drove through "the front lines" without even knowing it.
- Minuteman Missile NHS allows visitors to think about how the end of the Cold War and the resulting shift in military preparedness has altered the economic and social fabric of the nation.
- Effective deterrence is based upon two components: the technological capability and the will and preparedness to employ that capability without hesitation. The Minuteman system was the ultimate of both.

2. Technology

To counter the Soviet threat, technological superiority coupled with the ability to deliver unprecedented force was required to maintain peace. In order to deter Communist aggression, the United States developed the Minuteman missile defense system with the ability to respond to an attack with immediate and massive retaliation.

- The threat of Communism galvanized the American people to construct the greatest deterrence to war imaginable; today, Delta -01 and Delta-09 remain as the best preserved technological examples of that deterrence.
- The United States and the Soviet Union engaged in an arms race to prove each one technologically superior to the other.
- Buried beneath the grasslands of the Great Plains was the technology to end the world; fortunately, our nation had the wisdom never to use it.
- Activation of the upper Great Plains missile fields meant the training and development of a new generation of skilled employees and Air Force personnel.
- Three years in construction, the complex missile field facilities and equipment of Delta-01 and Delta-09 remain as a testament of time.
- Minuteman provides for contemplation of humanity's grasp of technology and the responsibilities that come with it.
- Research and development for the missile defense system provided technological advances we experience today.
- Today we use equally important technology and management practices to conserve the historical components of Delta-01 and Delta-09.

3. Human/Cultural

Whether the threat of nuclear annihilation kept the superpowers from mutual assured destruction may never be fully determined. What is clear is that deterrence worked. The Minuteman missile defense system was one such deterrent; it was a weapon that came to shape the American landscape, leaving a mark on the men and women who built it, operated it, and lived alongside it.

- The Cold War defined a generation as demonstrated in American popular culture — our movies, art, books, fashion, and heroes.
- The Minuteman missile defense system is a testament to the hard work, preparedness, and sacrifices made by the Air Force personnel and the local community to protect our nation from nuclear attack.

- Citizens all over the United States became acquainted with "civil defense" during the Cold War era and many Americans were building bomb shelters, stockpiling supplies, and waiting for the attack that never came. (Likewise, what impact did our actions have on Soviet populations across the globe? Did they experience similar emotions and reactions due to "their" national threat?)
- In various ways, Minuteman affected South Dakota communities, ranchers, and tribal members' traditional use of the land.
- Today, visitors can see formerly classified technology that may have had a profound impact, not only upon their political and social beliefs, but upon their very way of life.
- The U.S Air Force missileers waited and waited for the orders that never came. They had to remain "at the ready" in close quarters, while fighting the tedium and boredom of inaction.
- The U.S. nuclear missile capabilities were located at the "northern tier" bases in rural and remote areas of the upper Great Plains.

4. Economic/Industrial

The Minuteman missile defense system was a catalyst for rural electrification, improved roads, population shifts, economic enhancement, and community stability. Research and development for weapons and delivery and support systems influenced a military complex that became a fact of United States economic life.

- The Minuteman missile defense system represents significant engineering accomplishments in design, construction, and operations.
- Military and private contractors developed the industrial partnerships to carry out America's strategic missile defense program.
- The placement of the missile fields were selected because of their proximity to an existing AFB, the shorter flight path over the North Pole, and their distances from large population centers.
- The U.S. government compromised its national social agenda to fund the military/industrial buildup during the Cold War.
- A generation of workers were provided new opportunities for government and contractor employment but also needed new skills and training to meet the technological advances.

- The response to the Soviet threat of nuclear war was a massive national mobilization of manpower, technology, and funding to implement a national defense system in 18 months that remained operational for 40 years.
- The dedication and professionalism of the missile maintenance crews of the 44th Missile Wing always ensured that the missile capable rate averaged 99% during their 30 years of active duty.

5. Political

The Cold War is in the past, but it has a lasting effect on the present and future. Minuteman Missile NHS facilitates a public dialogue on the Cold War, nuclear weapons proliferation and disarmament, the role and dedication of U.S. Air Force personnel, and the nation's political and military future. Today's debates about missile defense, taxes, and terrorism all reflect our national experiences of the decades just past.

- The Minuteman missile defense system served as the backbone of America's strategic defense for more than three decades.
- Mounting pressure from competing political systems forced an ever-expanding arms race that taxed the social and economic infrastructures of the superpowers.
- Development and activation of the Minuteman missile ICBM system guaranteed "mutual assured destruction," thus making their use unthinkable and keeping a "hot" war from occurring.
- Minuteman Missile NHS focuses public debate on the past, present, and future ramifications of the Cold War.
- The Minuteman missile defense system was a key component of America's strategic commitment to preserve world peace.
- The military/industrial buildup to deter Soviet aggression became an important instrument of U.S. diplomacy.
- The Soviet Union's view of our "defensive" Minuteman Missile system may have been perceived as "offensive" weapons to them.
- The Department of Defense's Legacy program and the Department of Interior's National Park Service share the idea of "preserve and protect."

VISITOR EXPERIENCE GOALS

Experience Goals for All Park Visitors

Programs and facilities at Minuteman Missile NHS will provide visitors with information and interpretive opportunities. The following goals identify experiences that should be available to park visitors, before, during, or after their visit. It is expected that visitors — through the park's website, signage, facilities, interpretive media, personal services, and educational programs — should have the opportunity to:

- Prior to arrival, successfully plan their visit and orient themselves to the park's facilities, features, and services.
- Locate primary orientation, information, and service facilities.
- Receive information on attractions and services in the nearby area.
- Safely enjoy their visit by learning about appropriate safety guidelines, and park rules and regulations.
- Behave so they do not harm themselves, others, or park resources.
- Have access to the park's facilities and programs, given the range of visitor abilities or disabilities.
- Receive optimum information in order to make the best informed decision for planning their time.
- Understand that Minuteman Missile NHS is part of a system of a nationally significant parks known as the National Park System.
- Develop a sense of appreciation that will result in actions to protect and support the park and the National Park System.
- Understand the park's significance and interpretive themes.
- Participate in interpretive services designed for diverse populations including children, former Soviet Block countries, and the military.
- Receive unbiased information that includes multiple points of view.
- Discover personal meaning by making intellectual and emotional connections to the significance of the park's resources.
- Value the significance of the park's cultural resources and understand the reasons and processes involved for their conservation.
- Purchase publications, maps, and other educational materials that will enhance their visit.
- Enjoy the park's opportunities for personal contemplation, educational enrichment, or participation in civic engagement.
- Contribute to the stewardship of Minuteman Missile NHS.

Visitor Experience Goals for "Group Types"

The "group types" listed below who come to Minuteman Missile NHS should achieve these specific visitor experience goals:

General Visitor and Park Neighbors (includes individuals, friends, families, senior citizens, foreign language visitors, and local/regional residents) will have opportunities to:

- Access orientation information to make decisions about their visit.
- View interpretive media that reveals park themes and stories.
- Get an experience that simulates going to Delta-01 and/or Delta-09 if they do not have an opportunity to visit those areas.

Organized Groups (includes bus tour groups, community organizations, scouting groups, military staff rides, and natural resource organizations) should have the opportunity to:

- Understand the shared values of the National Park Service and their organization.
- Easily find information about the special requirements of bringing a group to visit the park.
- Schedule a program appropriate to interests and age presented by a park ranger/interpreter.

Education Groups (includes curriculum-based programs for classes from Kindergarten through Grade 12, college groups, and elderhostel groups) should have the opportunity to:

- Participate in curriculum -based education programs presented by park staff on-site or off-site that meet state standards for the appropriate grade levels using age-appropriate educational techniques.
- Participate in pre-visit and/or post-visit activities that enhance connections to meanings and enhance the group's learning process.
- Participate in teacher-directed programs using materials and training provided by the National Park Service.

"Virtual Visitors" (includes visitors who do not actually come to the park, but learn about the park's resources by way of the internet or publications) should have the opportunity to:

- Easily navigate the website to learn about the park's natural and cultural resources.
- Print photos, maps, and other information on the park's resources.
- Find links or information on sites associated with the park.
- Find answers to their questions about the park or are able to send an email requesting further information.

VISITOR PROFILES

Minuteman Missile NHS's First Visitor Season

Fiscal Year 2004 marked the first full year of operations for Minuteman Missile NHS. Staff at the site's planning and development project office began their first visitor season of guided tours on Memorial Day, 2004. Reservations for the tours, however, began on April 1, 2004. Almost immediately, slots for the two daily tours (on Monday through Friday) began to fill. By the end of the summer, most — if not all — of the approximately 900 tour slots had been filled to capacity.

Although visitors came from 45 states, the largest percentage of visitors were residents of South Dakota, Wisconsin, California, Illinois, and Ohio, respectively. International visitors arrived from Norway, Great Britain, Netherlands, and other countries.

How did visitors learn about Minuteman Missile National Historic Site?

Minuteman Missile/NPS web page	47%
Other sources (other than those below)	19%
Local "word of mouth"	11%
Walk-in	10%
Relative/family member of local NPS	4%
Local newspaper	4%
Central Reservations Inc.	2%
South Dakota tourism books	2%
Badlands National Park employee	1%

Visitor comments about the historic site, the interpretive themes, and the tour guides were extremely positive. Many visitors took the time to talk to park staff after their tour and make suggestions on what they would like to experience on future tours, what a future visitor center might include, and possible solutions to issues related to visitor access into the underground launch control room.

Because of fire safety codes, visitors were guided through the aboveground structures at Delta-01 but not the underground launch control room. In place of the control room, visitors were taken to the ICBM and silo at Delta-09. Although some visitors were disappointed at not having access to the control room, they were thrilled to have the opportunity to see the Minuteman II silo and training missile. Most visitors commented on how they felt it was important for them to have their tour experience "completed" with a visit to Delta-09. Using this feedback from the 2004 summer tours, the park staff discovered that going to Delta-09 is an integral part of the visitors' overall tour experience.

Visitation Projections

A Transportation System Plan drafted in March 2003 included visitation projections. The following is an excerpt from page 33 of that plan:

A visitor center at either location [i.e., Exit 127 or Exit 131 off of Interstate 90] is expected to draw a relatively high volume of visitation due to proximity to Interstate 90. However, a visitor center at Exit 131 would receive considerably more visitors than one located at Exit 127 for several reasons. First, the majority of visitors to Badlands National Park leave Interstate 90 at Exit 131 and enter the park from the northeast. Many of these visitors would likely stop at a Minuteman Missile NHS visitor center at Exit 131 because it is on the way to Badlands National Park in hopes of finding directions or information about the Badlands, or because it offers a good place to rest after driving long distances. Furthermore, travelers who journey from east to west through Badlands National Park on Highway 240 would not pass a Minuteman Missile NHS visitor center at Exit 127, and would be unlikely to backtrack. A visitor center at Exit 131 would also benefit from proximity to the existing gas station and convenience store. In comparison, a visitor center would be the only reason to stop at Exit 127. Taking into account these considerations, as well as attendance at other area attractions, a visitor center at Exit 127 would attract 221,000 people in Year 5; 225,000 in Year 10, and 228,000 in Year 20; a visitor center at Exit 131 would attract about 474,000 people in year 5; 479,000 in Year 10, and 488,000 in Year 20.

If the Visitor Center is located off Interstate-90's Exit 131, the site's projected visitation would range between:

Low:	427,000 per year
Medium:	474,000 per year
High:	522,000 per year

If the Visitor Center is located off Interstate-90's Exit 127, the site's projected visitation would range between:

Low:	199,000 per year
Medium:	221,000 per year
High:	243,000 per year

Visitor Limitations

Minuteman Missile NHS is the only intact Minuteman II missile site remaining in the United States. Delta-01 and Delta-09 are the only examples that demonstrate the original Minuteman I configuration (modified to Minuteman II) designed to implement the Cold War policy of nuclear deterrence through the threat of massive retaliation. Both sites are on the National Register of Historic Places and contain 38 features on the List of Classified Structures. Both properties are on the cultural landscape inventory. In order to protect these significant cultural resources according to NPS Management Policies and Director's Orders #28 on Cultural Resource Management, these guidelines may place limitations on visitor use of the site's facilities.

Director's Orders #28 states, "*The legal mandate to both conserve and provide for public enjoyment seems to hold potential conflict. In fact, the Service's primary responsibility is clear: It may provide for public enjoyment of park resources only 'in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.'*" In other words, preservation takes precedent over visitor use.

The maximum number of visitors on a typical tour of Delta-01 totals 18. Each tour, however, is subdivided into groups of 6. While a group of 6 tours the Delta-1 grounds, another group of 6 tours inside the aboveground support structures, and the other group tours the underground Launch Control Center. After a predetermined amount of time (20 to 30 minutes) the groups switch. They switch a third time until all of the groups have visited the entire Delta-01 site. Decisions to subdivide the tour into groups of 6 were made because of two specific limitations: size and carrying capacity of the Delta-01 elevator; and size of the interior rooms, hallways, and corridors at Delta-01.

Currently, the low number of employees at Minuteman Missile NHS present a controlling variable in the number of visitors that can tour the site. During fiscal year 2004, with only one park guide, only two tours per day (Monday through Friday) were offered with a capacity of 6 visitors per tour. In fiscal year 2005, with two park guides, the tour capacity was doubled to 12 (6 visitors with each guide). In order to remain fiscally responsible and maintain operations within current base projections, there is the possibility of increasing the current tour to their maximum capacity of 18 visitors. Operations would remain with three guides per tour, with two tours per day for the short term.

Under optimum fiscal conditions in the long term (hypothetically, with maximum FTEs and guides), the controlling variable then becomes the physical carrying capacity of Delta-01, specifically its elevator and interior room/corridor size. The maximum number of visitors on any one tour at any one time would still be limited to 18. Under hypothetical maximum conditions, however, the number of tours could be increased from the current 2 per day to 6 per day, and the site could extend the number of days from the current Monday through Friday to seven days per week.

Under this scenario (and considering shoulder season staffing, winter season staffing, opening and closing times of the day), the site's total number of visitors that could tour Delta-01 equals 17,244 annually (10,476 visitors in the summer season, 2,970 in the shoulder seasons, and 3,798 in the winter season). Of course, these figures are just an educated guess; nonetheless they seem to give a reasonable window into what the site can expect within a set of variables. Therefore, even with projected annual visitation to a future visitor center being up to 500,000, only 17,244 of them could visit Delta-01 on a guided tour.

During fiscal year 2004, a health and safety team from the Midwest Region provided recommendations concerning health and safety issues at Delta-01. Thirty-five concerns were highlighted during their site visit in the winter of that year including egress (due to fire safety codes) from the Launch Control Center. Because of the egress concern, visitors were not allowed into the LCC during the 2004 summer season of tours. During the remainder of 2004, Minuteman Missile NHS and Regional staff worked on solutions to mitigate the egress concerns.

Successful solutions were enacted and by the 2005 summer season, visitors were allowed to tour the LCC. One of the mitigating solutions, however, places some limitations on the visiting public. In essence, visitors on tour that elect to visit the underground LCC must have the ability (in case of elevator failure) to climb the 32 feet of ladder/catwalk up from the LCC to topside. The safety guidelines do not prevent visitors from participating on the entire tour; just the part of the tour into the LCC if they decide they would not be able to climb up the ladder/catwalk. During fiscal year 2005, a few elderly visitors and most children under four years of age remained topside.

Considering the physical constraints of Delta-01, the site has and will continue to have interpretive challenges for large visitor groups of 18 individuals or more (e.g., bus tours, school groups, civic organizations). Currently, Delta-09 provides a satisfactory "over flow" for the larger groups. The Delta-09 compound can handle larger groups with few of the limitations apparent at Delta-01. The downside of Delta-09, however, is that it provides only about half of the Minuteman II story and it is subject to weather extremes. The challenge for the future will be drafting and implementing procedures and options to effectively meet the interpretive needs of the larger groups who tour Delta-01.

ISSUES AND INFLUENCES

Servicewide and National Influences

Civic Educator

At NPS Director Fran Mainella's direction, over the past couple of years the National Park System Advisory Board has been considering ways to broaden public awareness of the powerful learning opportunities offered in national parks. This work by the Board follows release of its report in 2001, Rethinking the National Parks for the 21st Century, which called on the NPS "to become a more significant part of America's educational system.

At Minuteman Missile NHS, the NPS will have a "first-time" opportunity to provide civic engagement on a variety of Cold War topics relevant to the site's interpretive themes. Visitors can be provided the opportunity to participate (actively or passively) in educational programs, facilitated by park staff or other professionals, at the future visitor center facility. The Board is encouraging the NPS to look at its unique, place-based educational and interpretive programming to help advance the broad societal purposes of civic awareness and civic responsibility.

Base Closure and Realignment Commission

Since 1991, Ellsworth Air Force Base (AFB) has been a consistent force in the establishment of Minuteman Missile NHS, and in its future development. Personnel from Ellsworth AFB and other Air Force institutions have played key partnership roles for the site including: providing Congressional testimony for the site's enabling legislation; providing caretaker status of Delta-01 and Delta-09 from deactivation through transfer of administration to the NPS in 2002; transfer of funding for the future development of a visitor center/administrative facility; partial administration and funding for the South Dakota Air and Space Museum; offering the part-time services of a civil engineer for technical and operational support; jointly designing and installing a viewing enclosure for Delta-09; emplacing a training model of a Minuteman II missile into Delta-09; and providing temporary storage for thousands of museum and archival items at Ellsworth AFB. The former and current Wing Commanders at Ellsworth AFB have committed their continued support to Minuteman Missile NHS.

In 2005, the Department of Defense placed Ellsworth AFB on their list of military bases to be closed. After months of research and public hearings, the Base Closure and Realignment Commission (BRAC) chose to remove Ellsworth AFB from the closure list. Although Minuteman Missile NHS and the western South Dakota community "dodged the bullet" at this time, the possibility of a future closure of Ellsworth AFB by BRAC is something the NPS needs to keep in mind.

Cold War Legislation

The Cold War "Study Act" would identify cultural resources associated with the Cold War as well as methods to commemorate and interpret them. By identifying nationally significant areas this could lead to resources being designated as National Historic Sites, National Historic Landmarks, or listing on the National Register of Historic Places. In addition, an interpretive handbook on the Cold War would be prepared that expands the interpretation of that era. In 2002, the 107th Congress introduced bills on the "Cold War Study Act". The House of Representatives passed its version (H.R. 107) but the Senate version (S. 1257) was not passed.

Department of Defense: Air Force Legacy Program

The Department of Defense (DOD)'s Air Force Legacy Program determines how best to integrate the conservation of DOD's cultural resources within the requirements of military missions. One of the tasks of the Legacy Program is the Cold War project which continues to explore the cultural resources of that period. This project has documented significant Cold War installations and sites (which has led to several areas, including missile sites, being added to the National Register of Historic Places) as well as developing studies that identify military themes and context topics of the era.

Manhattan Project Act

The Manhattan Project National Historical Park Act of 2003 would commission a study on the preservation and interpretation of the sites concerning the Manhattan Project for potential inclusion in the National Park System. The Manhattan Project led to the development of the first atomic bomb and ushered in the nuclear age. Many of the facilities (e.g., the Los Alamos Scientific Laboratory and parts of the Hanford Site) have already been recognized as nationally significant. At present the passage of a bill creating the park has not been approved by either the Senate or the House of Representatives although a Special Resource Study is currently underway for the Manhattan Project Sites (Public Law 108-340, signed in October 2004).

External Issues

Minuteman Missile NHS is influenced by issues that affect the park's ability to accomplish its goals. The park's external influences include:

Budget Restrictions

In response to the NPS Midwest Region's "FY04 Budget Crisis-Living Within Our Means" challenge, all of the region's park areas were directed to draft a Position Management Strategy. Each Strategy was to provide a detailed outline of the park area's organizational structure with fixed costs set at a minimum of 85% of base budget. Fixed costs include salaries for permanent employees, lease payments, and utilities. The remaining 15% would provide for discretionary spending.

With the ratio of fixed costs to discretionary costs being set, and with no guarantee of a future base increase, Minuteman Missile NHS's strategy for position management is to maintain six permanent staff members. Any erosion of the base budget will be deducted from the discretionary 15% which, increasing year after year, will restrict both the numbers of seasonal staff and the development of future interpretive programs.

Core Operations

The National Park Service has adopted "Core Operations" Analysis as a business tool for use by parks and park support units. Analyzing park Core Operations is intended to help us assess what, if any, operational changes should be made to ensure the parks continue to achieve its core mission given available budgets. The National Park Service Core Operations Analysis was developed to provide a consistent framework for parks, and park support units, to evaluate their operations with respect to core mission. The primary goal is to ensure that park operating funds are spent efficiently and effectively and that requests for any additional funding are credible and strongly linked to our core mission. Minuteman Missile NHS is scheduled for a Core Operations Analysis in the spring of 2007.

Line Item Construction

During the Congressional Committee hearings for legislation to create Minuteman Missile NHS, the Congressional Budget Office estimated a future Visitor Center and Administrative Facility would cost $8.2 million. The site's enabling legislation called for the Secretary of the Air Force to transfer to the Secretary of the Interior any 1999 appropriated funds DOD had for maintaining Delta-01 and Delta-09 (approximately $5 million). Since 1999, while inflationary costs act to erode the $5 million in carry-over funds, similar variables act to increase the actual cost of the facility beyond the estimated $8.2 million.

During fiscal year 2005, Minuteman Missile NHS staff prepared a tentative Line Item Construction proposal in order to submit a funding request for this facility in the Project Management Information System (PMIS). The draft submittal totaled close to $11 million for a facility, far greater than what is available in the site's carry-over account.

Additionally, Department of Interior criteria for review and selection of Line Item Construction project is weighted towards "critical resource" and/or "safety-related" construction projects. Capital improvement construction projects, like Minuteman Missile NHS's visitor center/administrative facility, have little chance of competing well with the current backlog of higher-weighted projects.

Operations Evaluation

In 2002, the Midwest Region implemented the "Towards Excellence" program to provide assistance and accountability for park areas within the region. The program provides an operations evaluation of a park area's core standards and key indicators to meet accountability and oversight requirements. The checklist of core standards covers all of the facets of managing a park, including more than 50 items pertaining to interpretation, education, and volunteer operations. All total, more than 770 management issues are covered in an operations evaluation.

Management Issues

"Start-up" Park

Minuteman Missile NHS began official operations at the beginning of fiscal year 2004. The challenges of administering and managing a new start-up park area were apparent from the first day. Site personnel began concentrating efforts on planning and developmental issues, researching and reconstructing past decisions, organizing and outlining short-term and long-term tasks, building community relations, and answering the ever-repeated question "when are you going to open?"

Five broad goals were developed: 1) provide interpretive experiences for the public; 2) provide legendary customer service; 3) conserve the resources for future generations; 4) ensure staff and public health and safety and; 5) draft and implement NPS administrative operations. These five goals encompass a variety of "needs" for the start-up park area including planning for a visitor center, planning wayside exhibits, creating brochures, fulfilling the site's enabling legislation, establishing partnerships and volunteer groups, providing restrooms, installing directional signs, researching and mitigating land and boundary adjustments, conducting site inspections, providing hazard mitigation, documenting historic structure compliance, initiating integrated pest management, developing a museum management plan, planning a shuttle transportation system, starting rehab/repair work, completing and implementing the general management plan, providing emergency response, providing daily and cyclic maintenance, and much more. All totalled, the new park's staff drafted a 'to do' list of 274 items.

Most well-established NPS park areas have significant lists of goals and yearly tasks to accomplish in order to meet the specific operational needs of the park. Minuteman Missile NHS has the challenge of not only accomplishing the day-to-day operational needs like other park areas, but also drafting and implementing the infrastructure plans and outlines that run the day-to-day operations. In addition to these challenges, for fiscal years 2004 and 2005 the site had only four permanent employees to share all of the responsibilities. In fiscal year 2006, two new permanent employees joined the site's staff.

Staffing Limitations

Minuteman Missile NHS has a current organizational chart listing six permanent FTEs and 1.75 FTEs for seasonal employees (see Current Staff in the Existing Conditions section). Site Managers have submitted OFS requests for base budget increases in order to expand staff positions. The reality of current fiscal conditions for federal agencies, however, suggests that Minuteman Missile NHS will need to manage its human resources within the current limits of its ONPS base for the near future. As such, site staff may lack the expertise and experience in specific program areas, including some interpretation and visitor services professions. Realizing this, Minuteman Missile NHS cooperates with other NPS entities including Badlands National Park and the NEKOTA Office for specialized assistance. The situation could necessitate further mutual assistance agreements from other near-by park areas i.e. Education Specialist at Mount Rushmore and from local advisory groups i.e. teacher advisory group to guide the development of the historic site's education program.

Fee Program

Since operations began at Minuteman Missile NHS, staff members have been analyzing possible participation in the Federal Lands Recreation Enhancement program, which used to be called the Recreational Fee Demonstration Program. In anticipation of a park fee program, the staff will advance toward that goal in two stages. The first stage has been ongoing since the first public tours were offered beginning in May 2004. The park has offered ranger-guided tours of Delta-01 and Delta-09 to the public, on a daily basis, free of charge. These tours have been "fee free" for several reasons. Visitation is still relatively low, though growing substantially and there has been enough staff to meet the majority of tour demands. In addition, free tours have been successful in cultivating local interest by allowing those who live or grew up in the area to have an unprecedented opportunity to tour the site at no charge. Finally, the park decided that the cost of collection for tour fees would exceed the cost effectiveness threshold set forth under NPS fee program guidelines. With such a small start-up staff, the accountability standard operating procedures (SOPs) to run a fee program could overwhelm current operations.The second stage of the plan for Minuteman Missile NHS to start fee operations will focus on building a fee program that complies with the Federal Lands Recreation Enhancement Act passed by Congress in 2004. Park plans will include honoring the 'America the Beautiful Pass' for those visitors who qualify for discounts. The beginning of fee operations at the park will coincide with an anticipated increase in visitation over the next five years. A recreational user fee will be charged to those visitors who go on a ranger-guided tour of Delta-01 and Delta-09. The fee revenue will be used to cover the cost of collection and improve visitor services by possibly hiring an additional park interpreter. The cost of guided tours will be finalized only after a fee comparability study of similar park units has been completed.

Resource Management and Visitor Protection Issues

Minuteman Missile NHS staff members deal with many resource management and visitor protection issues. More research is needed on most of these issues. As more information becomes available, interpretation can help the public understand these issues and garner support for park actions that affect these influences:

Theft and Vandalism

Probably the biggest threats to resources at Minuteman Missile are destructive actions from visitors or the general public. Although tour groups are kept small, the chance of theft of resources is very possible. Appropriate risk assessments and follow-up plans can be initiated to assist in providing guidance for loss prevention. Specific visitor management approaches, such as limiting tour size and room access, and resource-related messages can be implemented to mitigate such concerns. An initial surveillance system has been installed to Delta-01's interior and exterior. In order to develop baseline data, an inventory of the site's furnishings, along with property inventories, will assist to determine if theft actually takes place.

Resource vandalism is another law enforcement concern for Minuteman Missile. Since the risk of vandalism and (non-tour) theft is greatest during night hours, an intrusion alarm has been added at Delta-01. Its surveillance system will not only assist during tour operations, but also provides a mechanism for evidentiary procedures in the event of theft or vandalism when no one is around.

Geocaching

A relatively new recreational activity, 'geocaching,' has surfaced during the past several years in units of the national park system. This activity usually involves the placement of a 'cache' containing a variety of objects, typically in a weatherproof container, and generally left in a remote area. Geocaching has already been observed at the site. So far the cache has been a virtual one but there is possibility of something being buried or left at the site. According to NPS Management Policies, "A new form of recreational activity will not be allowed within a park until after an environmental analysis has determined that it will not result in unacceptable impacts on park resources."

Visitation Numbers

Interpretation will play a significant role in mitigating any negative impact from the numbers of visitors touring the site. Potential problems could include social paths being created in the compounds, floor and carpet wear and tear, damage from inadvertent touching of murals and historic furnishings, and even fluctuations of humidity and temperature in the underground launch control center.

Visitor Safety

Concerns over visitor and staff safety will continue to be a significant priority. The elevator at Delta-01 will require close monitoring. Minuteman Missile NHS has contracted quarterly inspections along with a required comprehensive annual inspection. Even so, failure of the elevator is a visitor safety issue. If/when the elevator fails, visitors will need to climb a 40 foot ladder-catwalk. Over time, there is a probability of a visitor being injured while climbing on the ladder.

Both Delta-01 and Delta-09 have a variety of trip and falling hazards. Most of the rooms at Delta-01, including the launch control capsule, have a step up and a sill that can create a trip hazards. The carpeting through D-01 is starting to ripple and will eventually be a hazard.

Interstate traffic pose inherent safety concerns while commuting between the sites during tours. Extreme weather conditions can exacerbate the concerns. In the short term, driver safety while car caravanning needs to be emphasized. In the long term, shuttle driver training and periodic inspections will be a requirement for site operations. The South Dakota Department of Transportation has provided comments on the good conditions of the interchange at exit 131; the interchange at 127 would need a significant redesign to accommodate the increased traffic from visitors going to the new visitor facility if constructed there.

Cultural Viewshed Protection

Since operations began in fiscal year 2004, one of the priority concerns for staff has been protection of the historic scene at Delta-01. Selection of a site for the future visitor center/administration facility has focused attention on the matter, culminating in Exit 131 being chosen as the preferred alternative for the development. Two years of research and communications with stakeholders have provided significant information on the adverse impacts construction of a NPS facility would have on the historic scene and cultural viewshed at exit 127.

Interpretation efforts can reinforce the significance of the historic scene for not only the military selecting this area for creating the South Dakota missile field but also the preservation of the historic scene for the NPS in selecting exit 131. Delta-01 and Delta-09 provide an opportunity to interpret both the military history of the area as well as the NPS conservation standards for protecting our scenic resources.

Other

Other Resource Management and Visitor and Resource Protection issues and influences that may affect Minuteman Missile NHS's interpretive goals include: Integrated Pest Management, Accessibility, Compliance issues, and Repair/Rehab work at Delta-01 and Delta-09.

Interpretation Issues

The following issues affect the site's ability to serve park visitors:

Interpreting the Cold War

The scope of interpreting the "Cold War" is broad and lengthy. It is not the intention of Minuteman Missile NHS to interpret the full body of the Cold War era but rather to develop interpretive services focusing on Minuteman Missile NHS within the broader context of the Cold War. Early in discussions between the U.S. Air Force and the National Park Service, the NPS stated that the Cold War was a huge a subject and that interpreting it could not and should not be the primary role of the site. That is not to say that the Minuteman Missile NHS should not be used for "civic engagement" opportunities and conferences on the Cold War or that the "overarching story of the Cold War" should not "permeate the rest of the exhibit area" as stated on in the Long-term recommendations section of this document, but only that the primary focus should be these two Minuteman sites in the context of the Cold War.

Military Terminology

As a former military installation, Minuteman Missile NHS carries a significant amount of associated terms, descriptions, and vocabulary not readily used throughout the general public. Much of this military terminology is critical in order to convey, to the visiting public, an accurate and meaningful portrayal of life at Delta-01 and Delta-09. Excessive amounts of this terminology, however, can diminish visitor experience. Park interpreters must strive to learn the military vocabulary, and then interweave the terms appropriately into their programs.

The referral of "deactivated ICBM" is a common example of civilian terms in conflict with military terms. Personnel familiar with the START treaty do not like the term "deactivated ICBM" because of potential treaty implications. Also, it is inaccurate because the missile at Delta-09 is actually a Training Model of a Missile (TMOM) that was formally converted to a static display per START protocol. The TMOM is a concrete and steel "almost exact" replica, the same size and weight, of the Minuteman II, that is used to train missile handlers in the emplacement and removal of the missile, guidance set, and warhead. The military-preferred name of the missile at Delta-09 would be "Minuteman II static display missile" or just "static display missile."

Limited Interpretive Staff

The site's staffing level will be a key factor in the number of tours given each day. The current arrangement allows for one tour per day in the fall, winter and spring, and two tours per day in the summer season of Memorial Day to Labor Day. Due to increased visitation in September 2005, plans are being made to expand tours in September 2006.

Establishing a Volunteers-In-Park (VIP) program

Fiscal year 2006 will mark the development and implementation of the new site's VIP program. The current plan is to begin recruiting volunteers through the winter and spring of 2006. Sources for this program will include the Rapid City area, which has a high concentration of military retirees because of its proximity to Ellsworth Air Force base. Announcements will be made through printed media and by word of mouth. The park will use its contact with Ellsworth liaison, Tim Pavek, who may be aware of people interested in becoming park volunteers.

VIPs could assist with park rangers staffing the visitor center, presenting guided tours of the site, and they could assist with historical research for the site. The park also plans to open Delta-09 from late morning to early afternoon throughout the summer of 2006. The VIP program will be the primary source for the staffing of Delta-09 during this time.

Limited VIP fund allocations pose significant constraints for the site's fledgling volunteer program. The VIP fund allocation in FY 2006 will contribute mostly to mileage reimbursements since the site is distant from most population centers. Additionally, housing or improved campsites for VIPs are not readily available in the general area.

Establishing a Friends Group

One goal of site managers is to plan, develop, and implement a friends group for the Minuteman Missile NHS. Like other NPS friends organizations, such a group could assist with many of the site's operational needs including lands protection, marketing, fundraising, and developing a docent program for the site's future visitor center/administration facility. Docents could support interpretive operations and "fill the gap" because of limited NPS Volunteer Program Funds.

Training for interpreters

The first formalized training program for park interpretive staff will be implemented in FY 2006. Plans are to give Park Guides training in: NPS history with an emphasis on protection of cultural resources, preparing a formal interpretive talk, and making informal visitor contacts. The site will continue to use Badlands National Park's seasonal interpretive training to help orient new Minuteman Missile NHS employees.

Also, the site will develop its own training program with emphasis on research materials that enhance the interpretive staff's knowledge of the resource. Park interpreters also will participate in the peer-review certification program of the NPS Interpretive Development Program (IDP).

EXISTING CONDITIONS

Interpretive Facilities

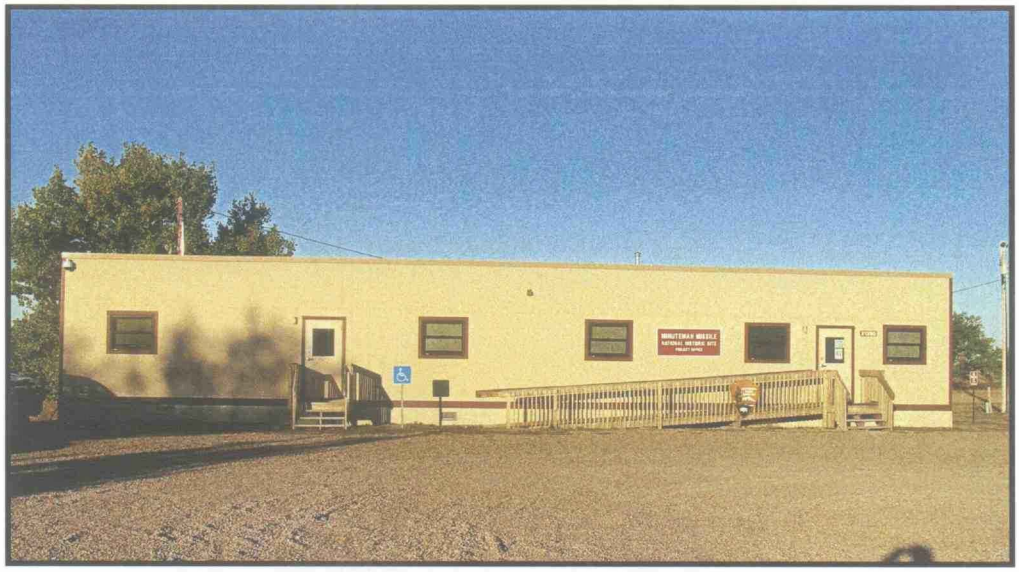
Project Office/Headquarters

The "project office/headquarters" is currently housed in a modular building in Cactus Flats, South Dakota, off exit 131 on Interstate 90 near the east entrance to Badlands National Park. This facility contains office space for the small park staff with offices for the superintendent, park ranger, historian (currently vacant), and maintenance mechanic.

At this facility's north end, a ramp and doorway allow visitor access to a small reception area where an administrative assistant is stationed to answer visitor questions. This small visitor reception area contains historic photographs of the construction of the Minuteman II missile system and a few maps. This project office/headquarters facility is the only visitor facility currently offered by Minuteman Missile NHS.

The park staff also uses the visitor reception area in the project office/ headquarters as the starting point for the park's interpretive tours, where up to six people (who made advance reservations) receive an orientation from a ranger before driving to Delta-01 and Delta-09.

There is limited room in the existing project office/headquarters for adequate visitor services and interpretation without some modification to the interior. The receptionist desk and photocopier machine block the circulation and viewing space needed for any visitor looking at the existing wall exhibits, especially groups of four or more visitors.

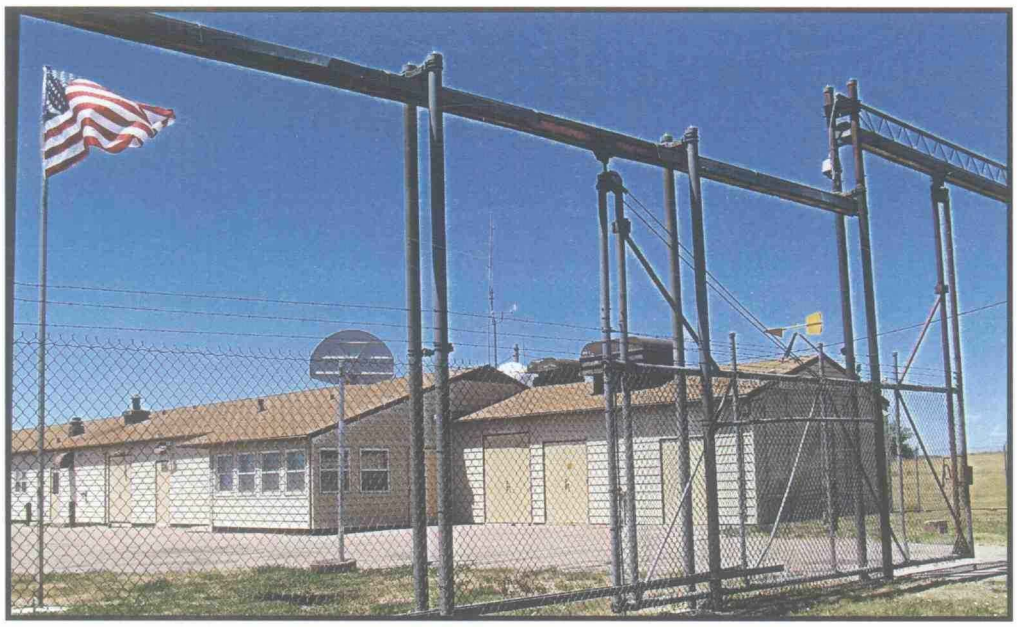


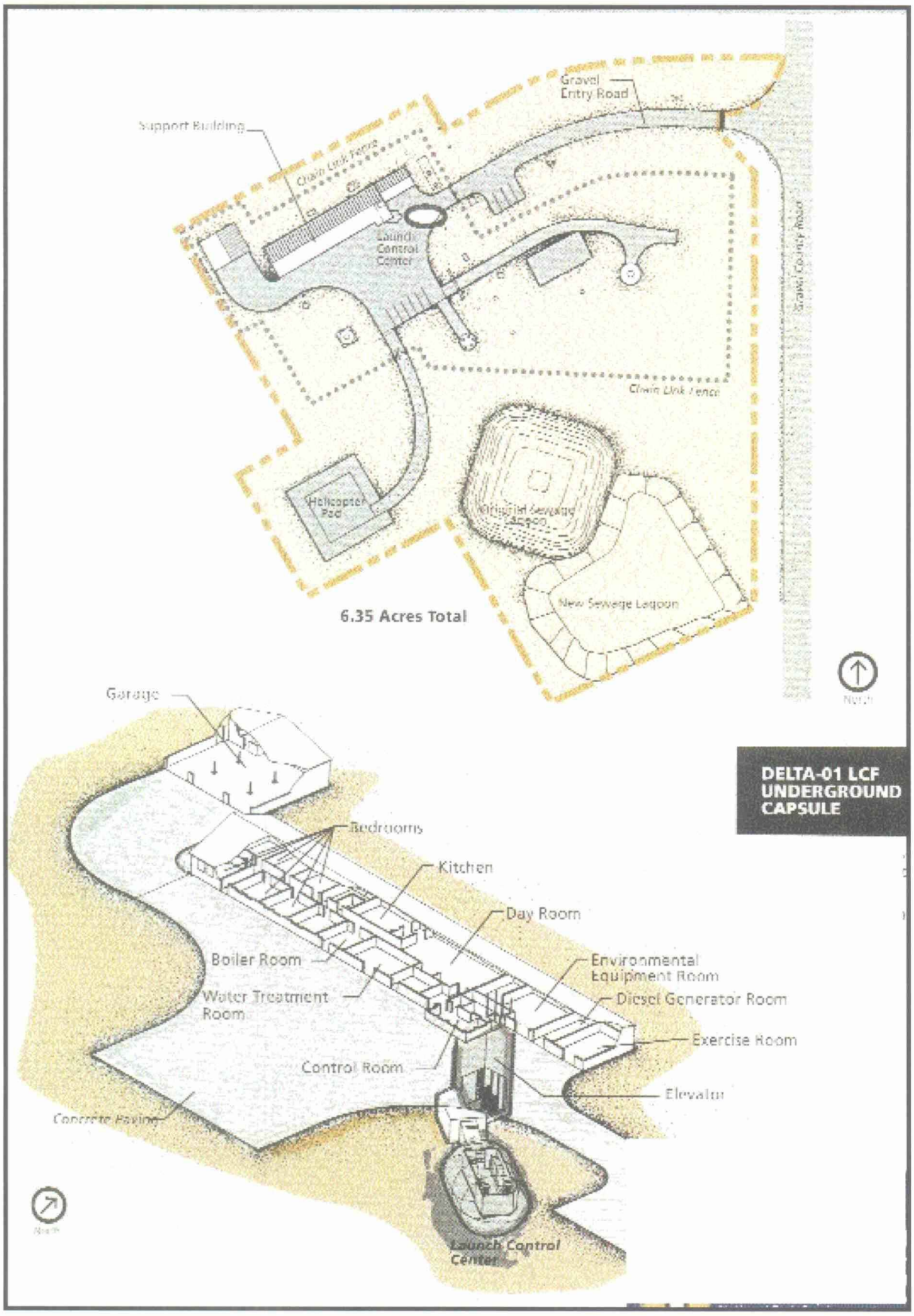
Delta-01 (Launch Control Facility and Launch Control Center)

Four miles west of the project office/headquarters, and just north of exit 127 on Interstate 90, lies Delta-01 — the Launch Control Facility (LCF). Surrounded by a chain-link-and-barbed-wire fence, access to the LCF site is through a chain-link sliding gate. Outside the fence are two sewage lagoons, a helicopter pad, and a small parking area. Inside the fence are antennas, a large garage, and a one-story support building that sheltered a security control room, environmental and electrical systems, and quarters for the eight-person crew who staffed the LCF.

The main entrance to the LCF is a southside door and hallway that leads to a large day room that the support crew used during their time off to read, watch television, and relax. A kitchen and small dining area adjoin the day room, and from there a long central hallway leads to seven bedrooms, men's and women's restrooms, and a utility room. The main entrance hallway also leads directly into the security control room where security police could observe the main entrance, operate the gate, check visitors' credentials, and monitor radio transmissions. The eight personnel who served here during its active period included two flight security controllers, two two-person armed response teams, a cook, and a facility manager. All personnel worked three-day shifts.

Approximately 32 feet below the "topside" LCF is the underground Launch Control Center (LCC), which is only accessible by an elevator or a ladder/catwalk. The LCC's capsule-shaped protective shell holds two control consoles. From 1963 to 1993, teams of two officers on 24-hour shifts staffed the LCC, and were replaced each morning by a new missile combat crew from nearby Ellsworth Air Force Base. This LCC provided command and control for the ten nuclear missiles of the Delta flight, 66th Missile Squadron.



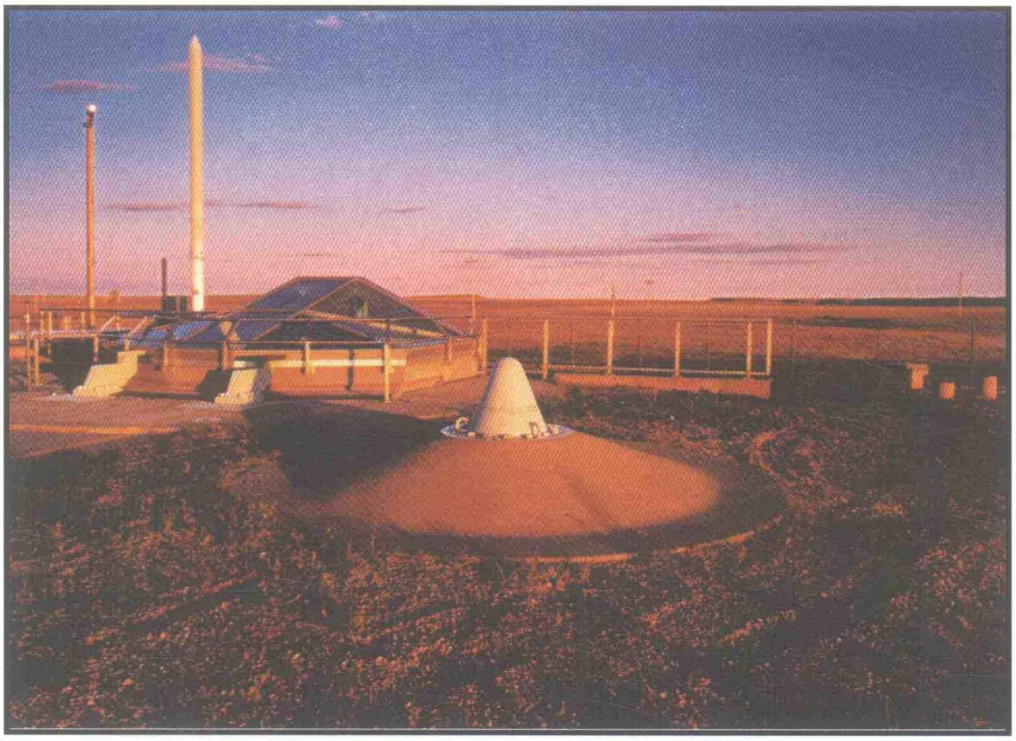

Gravel Entry Road
Support Building
Chain Link Fence
Launch Control Center
Gravel County Road
Chain Link Fence
Helicopter Pad
Original Sewage Lagoon
New Sewage Lagoon
6.35 Acres Total
North
Garage
DELTA-01 LCF UNDERGROUND CAPSULE
Bedrooms
Kitchen
Day Room
Boiler Room
Environmental Equipment Room
Water Treatment Room
Diesel Generator Room
Exercise Room
Control Room
Elevator
Concrete Paving
North
Launch Control Center

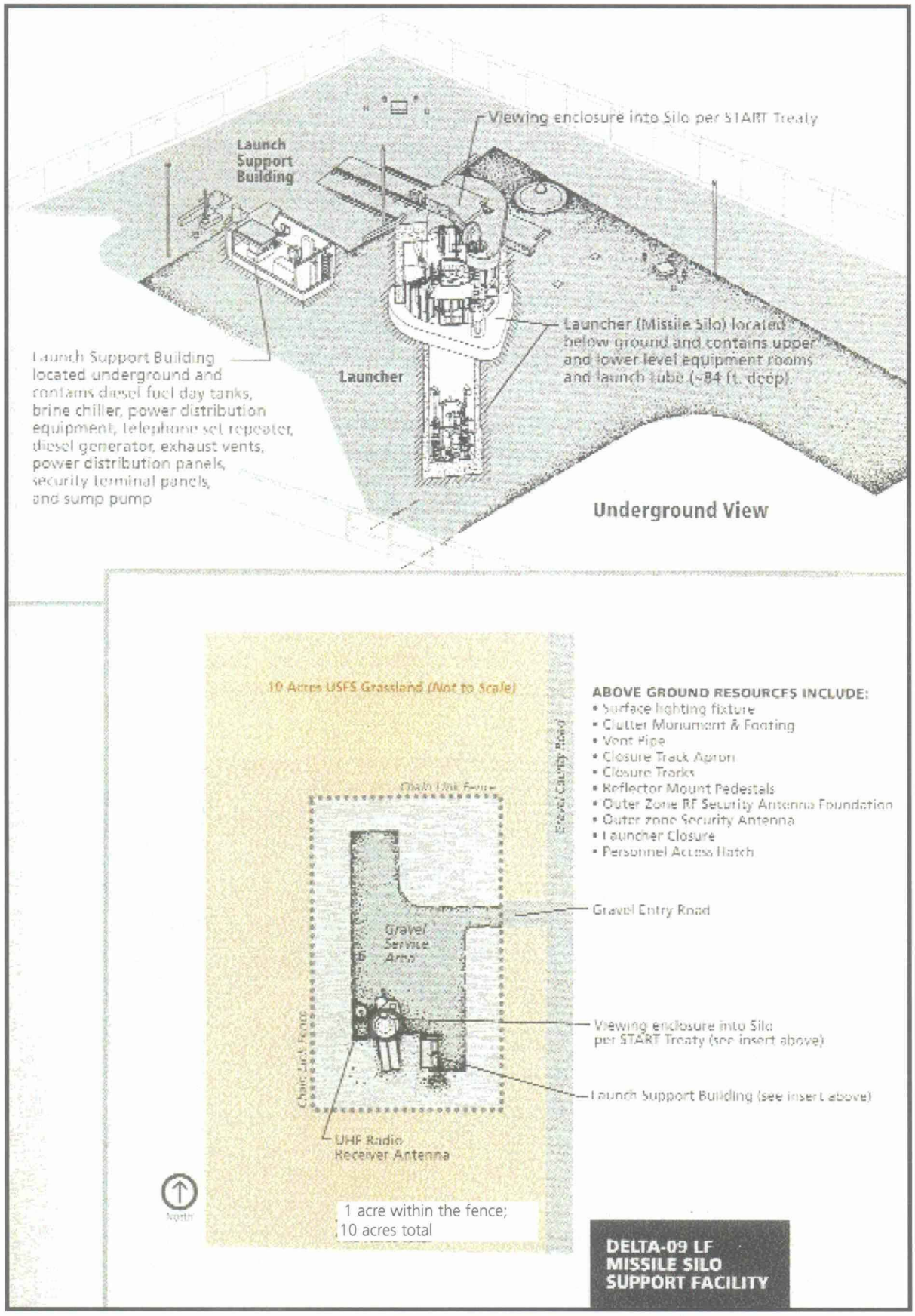
Delta-09 (Launch Facility)

Approximately 15 miles west of the project office/headquarters (and 11 miles west of Delta-01), and 1/2 mile south of exit 116 on Interstate 90, lies Delta-09 — a Launch Facility (LF) that contains a silo with an intercontinental ballistic missile (ICBM). Surrounded by a chain-link-and-barbed-wire fence, access to the LF site is through a double chain-link gate. Inside the fence is a small helicopter pad, a large gravel surface for transporter-erector vehicles that hauled and installed the Minuteman missiles, floodlights, and the missile launcher (sometimes called a missile silo).

From 1963 to 1993, the missile launcher (or, missile silo) served as a temperature-and-humidity-controlled, long-term storage container, protective enclosure, support facility, and launch pad for a Minuteman missile. The launcher consists of an underground launch tube which is surrounded by two equipment rooms, and is covered by a ballistically actuated door. The launch tube is made of reinforced concrete and measures 12 feet in diameter (inside dimension) by 80- feet deep. The concrete launcher closure door is three-and-one-half feet thick and weighs more than 80 tons. The door is currently partially opened with an stainless steel-and-plexiglass cover that allows visitors to look down into the launch tube and see the deactivated Minuteman missile.

Next to the launcher is an underground launch facility support building which provided electricity and equipment cooling to the site. On the opposite side of the launcher was an antenna that could link the Delta-09 launch facility to an airborne launch control system.




Viewing enclosure into Silo per START Treaty
Launch Support Building
Launch Support Building located underground and contains diesel fuel day tanks, brine chiller, power distribution equipment, telephone set repeater, diesel generator, exhaust vents, power distribution panels, security terminal panels, and sump pump
Launcher
Launcher (Missile Silo) located below ground and contains upper and lower level equipment rooms and launch tube (~84 ft. deep).
Underground View
10 Acres USFS Grassland (Not to Scale)
Chain Link Fence
Gravel County Road
Gravel Service Area
Chain Link Fence
UHF Radio Receiver Antenna
North
1 acre within the fence; 10 acres total
ABOVE GROUND RESOURCES INCLUDE:
• Surface lighting fixture
• Clutter Monument & Footing
• Vent Pipe
• Closure Track Apron
• Closure Tracks
• Reflector Mount Pedestals
• Outer Zone RF Security Antenna Foundation
• Outer zone Security Antenna
• Launcher Closure
• Personnel Access Hatch
Gravel Entry Road
Viewing enclosure into Silo per START Treaty (see insert above)
Launch Support Building (see insert above)
DELTA-09 LF MISSILE SILO SUPPORT FACILITY

South Dakota Air and Space Museum

Approximately 65 miles west of the project office/headquarters is the South Dakota Air and Space Museum, which is located adjacent to Ellsworth Air Force Base five miles outside Rapid City, South Dakota. This park partnership is specified within the enabling legislation that created Minuteman Missile NHS on November 29, 1999; it states that one of the park purposes is *"to complement the interpretive programs relating to the Minuteman II missile defense system offered by the South Dakota Air and Space Museum at Ellsworth Air Force Base."*

The South Dakota Air and Space Museum is free-of-charge, and open year-round. From mid-May to mid-September, the museum is open from 8:30 a.m. to 6:00 p.m.; during the fall, winter, and spring it is open from 8:30 a.m. to 4:30 p.m.

Outside the museum, 28 historic bombers and fighters are on display, including a B29, B26, C47, T38, and a Minuteman II missile. Inside the museum building (which is comprised of five former aircraft hangars) is a gift shop and more than 6,000 sq. ft. of exhibit space. Among the exhibits is a training console for the Minuteman II missile system that is identical to the console inside Delta-01's LCC.

Visitors to the South Dakota Air and Space Museum can also sign up for a bus ride and tour of a Minuteman missile Training Launch Facility on Ellsworth Air Force Base that was used for training missileers. These tours cost $5, and are available 10 times a day from mid-May through mid-September.

U.S. AIR FORCE

Interpretive Programs

Current Staff, 2005

As a small start-up park area, all of the permanent employees at Minuteman Missile NHS share both significant and routine responsibilities that cross the traditional lines of divisional structure, including providing for interpretive services. All of the Employee Performance Plans for permanent staff contain an interpretive-related element that provides for the development and implementation of a guided tour. The GS-11 Park Ranger serves as the Chief of Interpretation and Visitor Services (I&VS) with a Position Description listing requirements for professional management and supervision of the site's interpretation and visitor services program. The Employee Performance Plan for this position lists critical elements directly related to the I&VS program. Employee development of the position assures KSAs for management and supervision of the program.

The current staff of Minuteman Missile NHS as of the end of 2005:

Position Title	Status	Grade	FTE
Park Ranger, Superintendent	Perm FT	GS-12	1.00
Park Ranger (Law Enforcement)	Perm FT	GS-11	1.00
Maintenance Mechanic	Perm FT	WG-9	1.00
Park Ranger (Interpretation)	Perm FT	GS-5/7/9	1.00
Park Guide	Seasonal	GS-4	0.5
Park Guide	Seasonal	GS-4	0.5
Park Ranger (Law Enforcement)	Seasonal	GS-4	0.25
Custodial Worker	Seasonal	WG-4	0.5
Cultural Resource Specialist	Perm FT	GS-9/11	1.00
Administrative Assistant	Perm FT	GS-6	1.00
Total Positions: 10		Total FTEs:	7.75

Also, in 2004, 21 volunteers donated 500 hours of time.

Current Interpretive Programs

With the National Park Service employees and volunteers listed on page 36, Minuteman Missile NHS provides the following programs:

Interpretation

In the summer of 2004 the park initiated ranger-led tours of Delta-01 and Delta-09 for the first time on a small scale. Two 2-hour tours were offered each weekday — from 9:00 to 11:00 a.m. and from 1:30 to 3:30 p.m. — from Memorial Day through Labor Day. Only six visitors were allowed on each tour, and reservations were required. Most visitors found out about these tours (and the required reservations) through the park's website. Almost all the tours were filled to the capacity of 6 people each: During the 71 summer days when tours were offered, 142 tours were presented; of the 852 potential tour "slots" available (142 tours x 6 visitors per tour), 843 "slots" were filled.

During these tours, visitors used their own vehicles for transportation. After meeting the ranger at the park's project office/headquarters and receiving an introduction/orientation, visitors drove their vehicles and followed the ranger in an NPS vehicle to Delta-01, about four miles down Interstate 90. (Visitors parked their vehicles inside the LCC compound for protection from grazing animals.) The tour of Delta-01 included all the "topside" buildings; however, the tour did not include the Launch Control Center because the park was in the midst of resolving a safety issue. After touring Delta-01, visitors followed the ranger in their vehicles to Delta-09 where the ranger walked them around that compound. After each tour's conclusion, visitors drove away and the ranger returned to the park's project office/headquarters.

In the fall season, the park offered two 2-hour tours — again, from 9:00 to 11:00 a.m. and from 1:30 to 3:30 p.m. — but only on Tuesdays and Thursdays. During the winter, the tour offerings were reduced to only one tour each day (from 10:00 a.m. to 12:00 noon) on Tuesdays and Thursdays. In spring, the park went back to its fall schedule.

In the summer of 2005, the park was able to double the number of visitors on tour due to the additional of a second seasonal park guide position. The tours were held on the same schedule from the summer of 2004 but their capacity was increased from 6 to 12 visitors per tour. At Delta-01, the total group of 12 visitors would be split, 6 with one park guide and 6 with the other. One subgroup toured the aboveground facilities while the other group toured the underground launch control center. After 20 to 30 minutes, the groups switched. After visiting Delta-01, the entire group continued to Delta-09.

Education

As of 2005, the park does not have an education specialist or a formal, curriculum-based education program. The park does have a 16-page Junior Ranger booklet with activities for 3 to 6 year-olds, 7 to 13 year-olds, and for those over 14 years of age. The park also has a "For Kids" link on its website, and 25 young visitors have completed the Junior Ranger program on the website. The park has other eduction-related ideas that they are pursuing for implementation in 2006 and 2007.

Long-Distance Learning

The park plans to begin to research, along with Homestead National Monument of America, the possibilities of introducing long-distance technology into the site's interpretive and educational programs.

The park also plans to determine if this new technology can mitigate non-access to the Launch Control Center and begin to look into integrating the system into the site's education program when drafting it.

FUTURE INTERPRETIVE PROGRAM

INTRODUCTION

On September 28 and September 30, 2004, conference calls were held to discuss the park's current and future efforts in providing interpretive programs and educational opportunities. Conference call participants included: National Park Service (NPS) staff and volunteers from Minuteman Missile NHS; NPS staff from three other NPS areas; the Chief Interpreter of the NPS's Midwest Region; media specialists from the NPS's Harpers Ferry Center; the director of the Wall, South Dakota, Chamber of Commerce; an Ellsworth AFB former missile engineer; and the director of the South Dakota Air and Space Museum — the park's primary partner.

On October 19-21, 2004, a Long-Range Interpretive Plan workshop was held at Minuteman Missile NHS and the South Dakota Air and Space Museum that concentrated on the park's future visitor facilities and interpretive media. These workshops were attended by NPS staff and volunteers from Minuteman Missile NHS, a park neighbor, NPS staff from three other NPS areas, the Chief Interpreter of the NPS's Midwest Region, three media specialists from the NPS's Harpers Ferry Center, a Denver Service Center Architect, and the director of the South Dakota Air and Space Museum.

The agreed-upon recommendations that came from the conference calls and workshop are listed on the following pages in two sections:

Short-term (actions that can be taken in the next 1 to 4 years), and

Long-term (actions that can be taken 5 to 10 years from now).

Within each of these two sections, the recommendations are organized under the following sub-sections:

Visitor Facilities

Exhibits

Audiovisual Programs

Wayside Exhibits

Publications

Website

Interpretive Programs

Education Programs

The recommendations listed on the following pages will — when implemented — orient visitors to the park's interpretive opportunities, increase visitor understanding of the park's history, enhance visitor appreciation of the park's significance, and encourage visitors to help the NPS preserve the park's resources.

SHORT-TERM RECOMMENDATIONS

Visitor Facilities

Based on projected funding and timing for the plans for a new park visitor facility, the park superintendent stated during the LRIP Workshop in October 2004 that the project office/headquarters will most likely be in its current location for at least the next four years. Therefore, workshop participants split their recommendations into short-term actions that can be taken in the next 1 to 4 years (i.e., 2005 through 2008) and long-term actions that can be taken in the 5 to 10 years after this LRIP is approved (i.e., 2009 through 2013) and beyond.

With this agreed-upon premise in mind, the DSC Architect and his "Visitor Facilities" work group presented four concepts for the park's existing project office/headquarters. The goal for all four concepts was to make the existing building and site more inviting to visitors and better orient them to the park. The four concepts were summarized as:

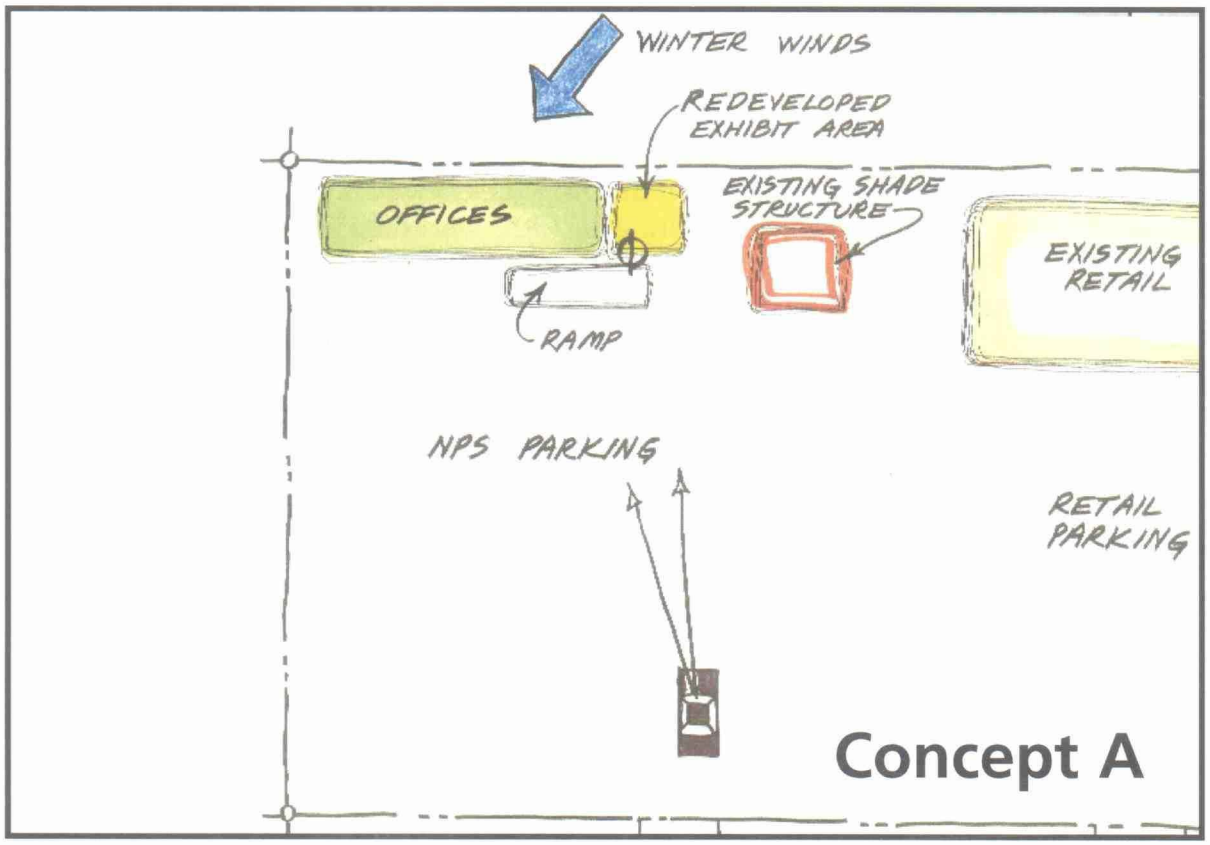
Concept A: Maintain the project office/headquarter's minimal level of development. Take a theme-based approach to the modular building's current small exhibit area, and develop new two-dimensional exhibits.

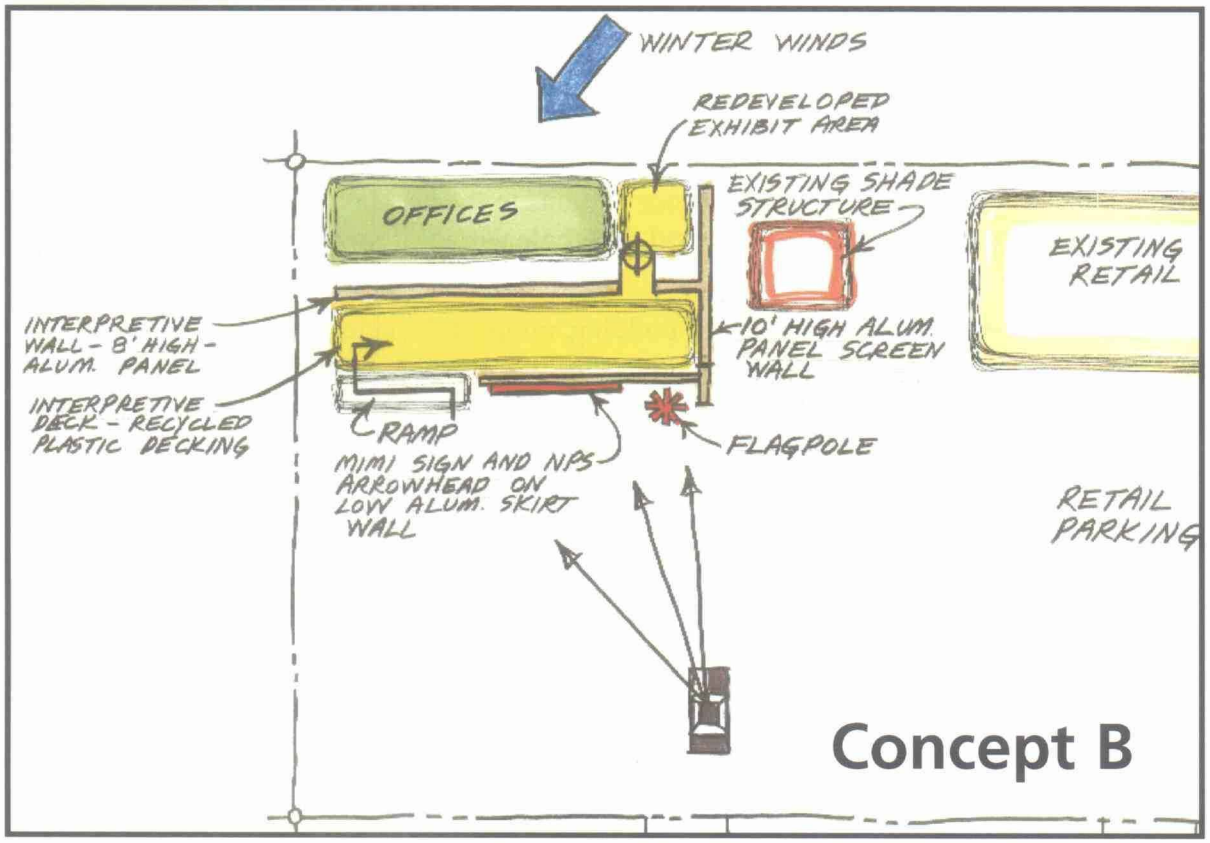
Concept B: Same approach as above as above, and add an outdoor interpretive area in front of the existing project office/headquarters. A ten-ft.-high screen/wall made of smooth-face composite aluminum panels (called "Alucobound") would block the nearby retail store and gas station, and shelter an interpretive deck area that would be made of materials that promote sustainability and environmental friendliness. The existing ramp would be moved to this interpretive deck to provide accessibility, and additional lighting would allow visitors to view the outdoor exhibits in the evenings. These outdoor exhibits, improved NPS signs, and a flagpole would promote a sense of arrival for visitors.

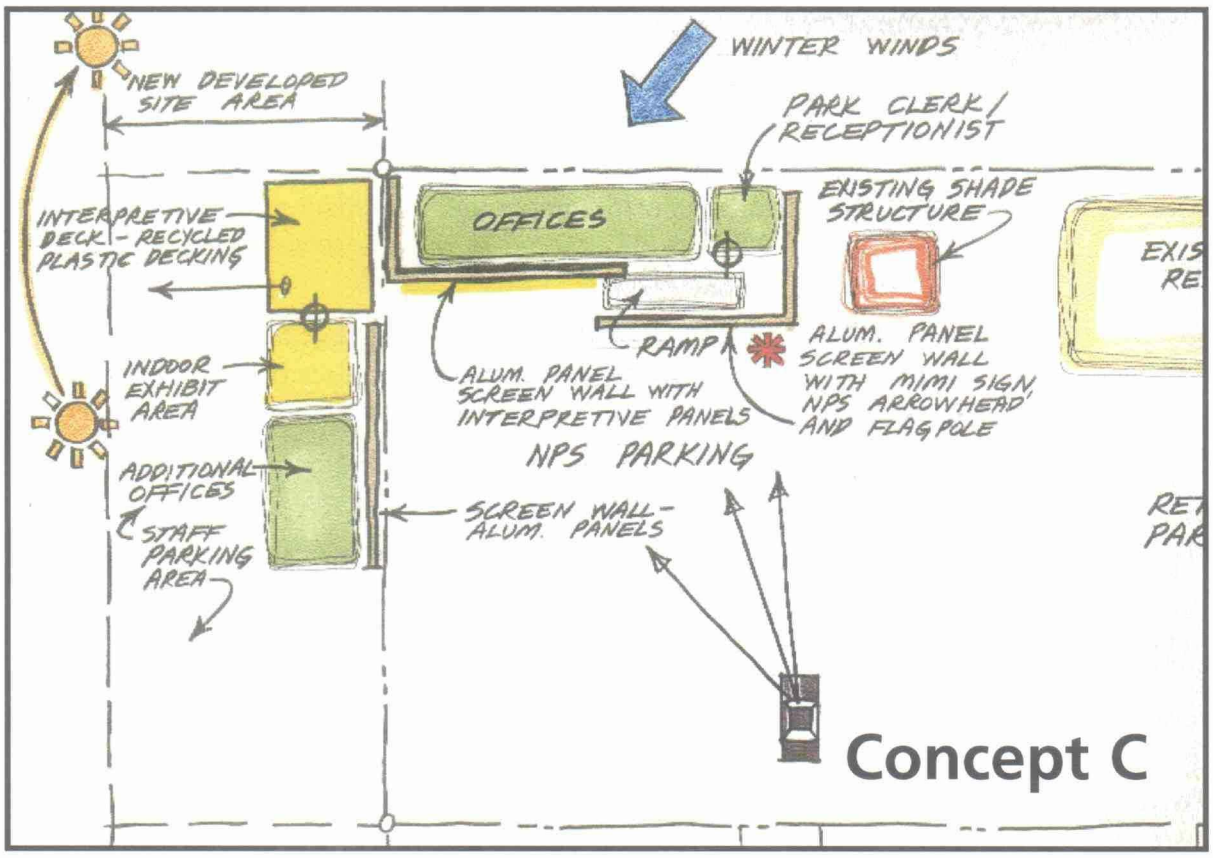
Concept C: Keep the existing modular building, ramp, and shade structure, and add a second modular unit to the southeast of the existing building, and add an interpretive deck south of the existing site. Ten-ft.-high walls made of smooth-face composite aluminum panels (called "Alucobound") would screen the modular units and deck. Outdoor exhibits, improved NPS signs, and a flagpole would promote a sense of arrival for visitors. Also, a larger exhibit area in the new modular building would contain exhibit panels and artifacts.

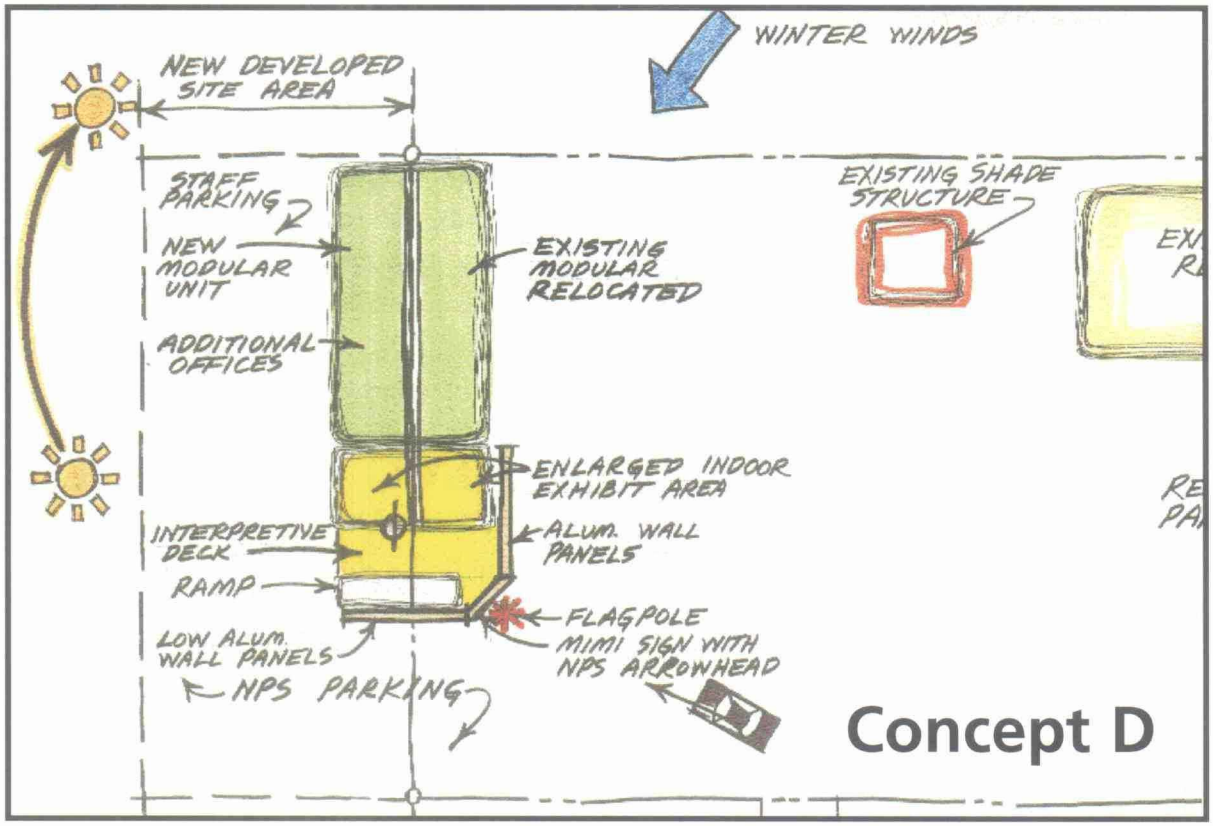
Concept D: Move the existing modular unit to have east/west access, and add a new modular unit parallel to it. Add an interpretive deck, outdoor exhibits, improved NPS signs, and a flagpole to promote a sense of arrival for visitors. Develop an exhibit area like Concept C.

Drawings of the above four concepts are on the following two pages.


WINTER WINDS
REDEVELOPED EXHIBIT AREA
OFFICES
EXISTING SHADE STRUCTURE
EXISTING RETAIL
RAMP
NPS PARKING
RETAIL PARKING
Concept A


WINTER WINDS
REDEVELOPED EXHIBIT AREA
OFFICES
EXISTING SHADE STRUCTURE
EXISTING RETAIL
INTERPRETIVE WALL - 8' HIGH - ALUM. PANEL
10' HIGH ALUM. PANEL SCREEN WALL
INTERPRETIVE DECK - RECYCLED PLASTIC DECKING
RAMP
FLAGPOLE
MIMI SIGN AND NPS ARROWHEAD ON LOW ALUM. SKIRT WALL
RETAIL PARKING
Concept B


WINTER WINDS
NEW DEVELOPED SITE AREA
PARK CLERK/ RECEPTIONIST
OFFICES
EXISTING SHADE STRUCTURE
INTERPRETIVE DECK - RECYCLED PLASTIC DECKING
RAMP
ALUM. PANEL SCREEN WALL WITH MIMI SIGN, NPS ARROWHEAD AND FLAGPOLE
INDOOR EXHIBIT AREA
ALUM. PANEL SCREEN WALL WITH INTERPRETIVE PANELS
NPS PARKING
ADDITIONAL OFFICES
STAFF PARKING AREA
SCREEN WALL - ALUM. PANELS
Concept C


WINTER WINDS
NEW DEVELOPED SITE AREA
STAFF PARKING
EXISTING SHADE STRUCTURE
NEW MODULAR UNIT
EXISTING MODULAR RELOCATED
ADDITIONAL OFFICES
ENLARGED INDOOR EXHIBIT AREA
INTERPRETIVE DECK
ALUM. WALL PANELS
RAMP
FLAGPOLE
LOW ALUM. WALL PANELS
MIMI SIGN WITH NPS ARROWHEAD
NPS PARKING
Concept D

Short-Term Concepts' Discussion and Recommendation

During the discussion of the four concepts for a short-term visitor facility at the LRIP Workshop, the following points were noted:

- The park staff noticed that most of the discussion revolved around Concept C. The superintendent stated that outdoor information on an outdoor deck (part of Concepts B, C, and D) would be valuable to visitors, especially those who arrive after the project office is closed.
- Concepts A and B would provide the same amount of indoor exhibit space. Concepts C and D provide for twice the indoor space than the first two concepts, and provide opportunities to display artifacts.
- Each of these concepts provides for a different amount of outdoor exhibit space, with Concept A having no outdoor exhibit space.
- Concept D would require more downtime (i.e., time closed to the public and, to some extent, to park staff) while the existing modular building was moved and utilities were extended to the new location.
- The landowner who leases the property (and also owns the store and gas station) would probably prefer Concept C or Concept A because those have a larger parking lot which could be used by large vehicles.
- The L-shaped arrangement of Concept C allows for the separation of the public's visitor facilities and the site's business functions.

By the end of the LRIP workshop discussion, the group recommended:
Concept C: Purchase a second modular building and place it southwest of the existing modular building, build an interpretive deck at the junction of the modular buildings, build facade/s on the front side of the two modular buildings, and install a flagpole.

Estimated cost for purchasing a modular building, installing it southwest of the existing modular building, and extending utilities: $98,000

Estimated cost for purchasing sustainable materials and building a fully accessible deck at the junction of the two modular buildings: $15,000

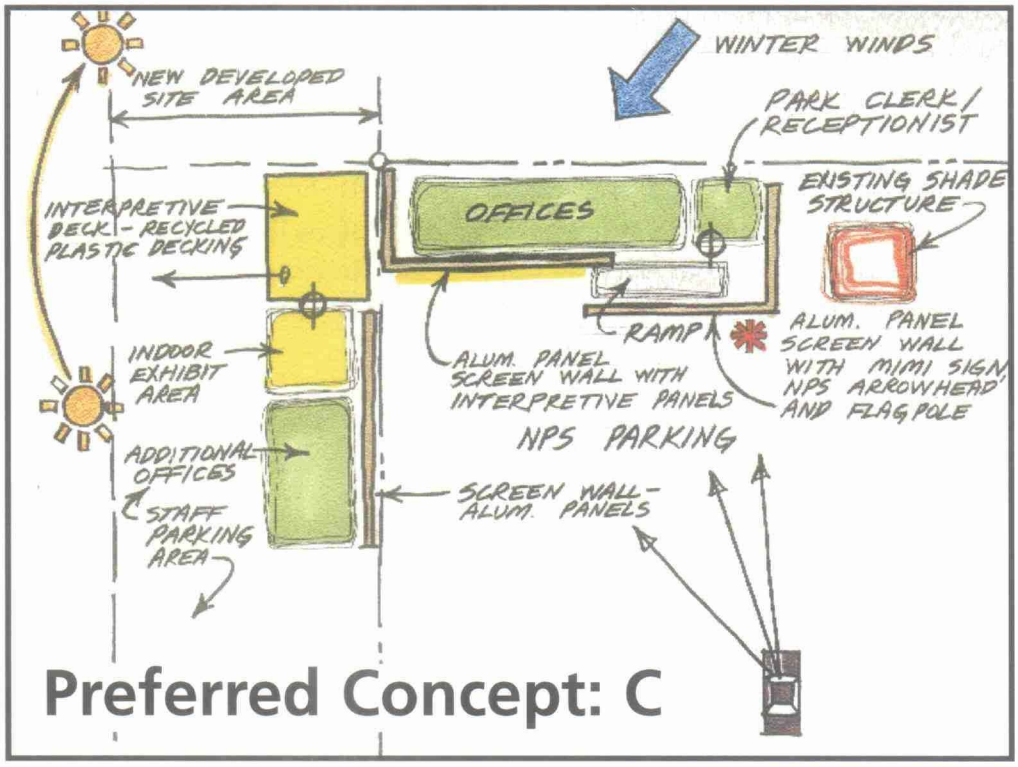
Estimated cost for purchasing materials for facades for both modular buildings, improving the landscaping, and installing flagpole: $15,000

This "L" shaped configuration was selected because it allows for the maximum use of the current lot and parking area while encouraging visitors to be oriented to the park in a larger temporary visitor facility.

Inside the door into the new modular building, a room of about 300 square feet will provide space for indoor exhibits and an information/ contact desk. Additional interpretive staff offices would be located adjacent to the information desk so that staff could work and still keep track of visitors who enter and leave the indoor exhibit area. Besides interpretive panels and artifact cases in the indoor exhibit area, durable artifacts and panels may be displayed on a 400 sq. ft. interpretive deck.

Outdoor exhibits and information panels will provide visitors with an opportunity for information and interpretation after the visitor facility closes at 5:00 p.m. The interpretive deck will have pleasant views to the south and to the west onto a pastoral scene with a stream and trees nearby. Steps, an accessible ramp, and railings will be integrated into the deck structure to create a fully accessible, inviting approach onto the deck. The steps, ramp, deck, and railing system should be built with composite recycled material (such as Trek decking system) to illustrate the site's sustainable practices. The configuration of the two modular structures will help visually screen and block noise from the parking area and adjacent commercial activities, thus creating a focused and quiet environment for visitors on the deck. The screen walls would be constructed with with a smooth-face composite aluminum panels made of "Alucobound" to reflect the high-tech look of the missile era. Graphics, specially shaped panels, colors, NPS arrowhead cutouts, and other panel elements could be added as desired. A shade structure will be included in the plan for at least part of the deck area for visitor comfort on sunny days. Benches where visitors can assemble and wait for tours to Delta-01 and Delta-09 will be provided on the deck where interpretive rangers can start their tours. In winter, removable windscreen walls will be considered to provide visitors with some comfort from the harsh northwest winter winds. The site will also add improved directional signs to this facility on Interstate 90 and SD Hwy 240.

Estimated cost for purchasing 2 directional signs for Hwy 240: $3,600



Exhibits

Once the preferred Concept C for a short-term park visitor facility is implemented in 2006, the park staff should move the interpretive-related office space into the second modular building that will be located perpendicular and southwest of the existing modular building. Within the new office spaces for the park's interpretive employees and volunteers, one office should be adjacent to the new exhibit area and include a window (or one-way mirror, or a see-through scrim) that would allow park interpreters to work on projects while watching for visitors. About 300 sq. ft. of the new modular building should be used for an information desk and interpretive exhibits. As planning for the new modular building proceeds, it is recommended that the park staff:

• **Contract for the overall planning for short-term exhibits, then the planning, designing, producing, and installing of at least five exhibit panels, each to address one of the park's five primary interpretive themes.** Estimated cost for overall exhibit planning, as well as planning, designing, producing, and installing 6 to 10 digital output panels that combine text and graphics mounted on a durable substrate, and overlaminated with a protective film: $6,000

• **Contract for the planning, designing, producing, and installing of artifact cases that will supplement the interpretive exhibit panels.** Estimated cost for planning, designing, fabricating, and installing 4 or 5 medium sized artifact cases integrated with the exhibit panels: $10,000

• **Contract for the planning and designing of the outdoor exhibit panels located on the interpretive deck.** Estimated cost for planning and designing the outdoor exhibits for the interpretive deck: $12,000

• **Purchase and install exhibit "track" lighting for panels and cases.** Estimated cost for buying and installing track lighting fixtures that will provide lighting for temporary exhibit panels and artifact cases: $3,000

• **Produce "Park Identity" and "Visitor Center" signs that conform to NPS standards and install them at appropriate locations.** Estimated cost for planning, designing, and producing "Park Identity" and "Visitor Center" signs that conform with NPS standards: $6,000

Audiovisual

Throughout the life of this plan, it is recommended that the park staff:

• **Continue to make professional quality oral histories from former missileers and others associated with the Minuteman II missile system.** The park should partner with Yale University and other universities that offer Cold War-related areas of study — as well as contractors — to share this oral history workload. The park should also work with Ellsworth AFB, the South Dakota Air and Space Museum, and the University of South Dakota in interviewing former Minuteman missile staff when they return for monthly open houses and annual reunions like the traditional Santa Maria Barbeque event. The results of these oral histories will be accessible to all researchers and media specialists. The estimated cost for collecting oral history audiotapes and videotapes and storing them in a climate-controlled location is $10,000.

In addition to collecting oral histories, the park should:

• **Develop an audio kiosk that would allow visitors to hear selected significant oral history subjects.** This will allow visitors to hear missileers (and other former employees related to the Minuteman II missile system). The estimated cost for the audio kiosk is $15-20,000. Listening phones would decrease sound spill from other exhibits in the room.

Once the preferred Concept C's short-term park visitor facility is implemented in 2006, the park staff should consider the following:

• **Develop a short compilation DVD program on how Minuteman Missile NHS was created.** This DVD program might include 'canned' news stories on the START Treaty, the decommissioning of the Minuteman II missile system, the legislation that created Minuteman Missile NHP, and other landmark events that led to the park's creation. This program could be shown on a monitor in the new exhibit area. The estimated cost for producing, editing, mastering, and captioning this DVD program could be as low as $5,000. However, licensing for news footage and "use rights" could cost as much as $40,000.

• **Acquire and convert to DVD format the historic footage of Minuteman missiles being tested.** The South Dakota Air and Space Museum has films of these test flights and are willing to share this footage. This DVD could be part of the compilation DVD described above or shown on a separate monitor in the exhibit area. The estimated cost for this DVD and monitor would be $5,000.

• **Develop a surrogate tour of the park that can be developed as a video or multimedia application.** This park tour will allow visitors who do not go on the ranger-led tour to see the park's resources. Also, this surrogate park tour may fulfill a program accessibility requirement. Estimated cost of this audiovisual program will be $50,000 to $60,000. In the very short term, site staff could develop an in-house production using a high-quality ADVD camcorder at an estimated price of $2,000.

Wayside Exhibits

In the short-term, most of the park's "on-site" wayside exhibit needs can be addressed, and are described below. The park's long-term wayside exhibit needs — which are described on pages 82-83 — will mostly address "off-site" wayside needs such as at Interstate Highway rest areas, other National Park areas in the Black Hills region, and the South Dakota Air and Space Museum. The long-term wayside section will also address the potential future wayside exhibit needs for the new visitor center. However, the wayside exhibits recommended in this short-term section will also cover much of the park's long-term needs.

The short-term (and long-term) wayside exhibit needs were discussed by the participants at the LRIP Workshop in October 2004, and they recommended the following wayside exhibits at these three park areas:

Project Office/Headquarters:

• **Plan, design, produce, and install a triple upright kiosk on the interpretive deck at a location readily visible to arriving visitors.** This kiosk could be roofless (if a shade structure is built over this part of the deck) or the kiosk could have a roof built over it to shade visitors (and the wayside panels). The three-sided kiosk would have:

-- one interpretive panel that introduces visitors to the park's primary interpretive themes using brief text and compelling graphics, orients visitors to the locations of Delta-01 and Delta-09, tells visitors how (and where and when) they can sign up for site tours, and generally explains the restrictions on visiting these park sites.

-- one interpretive panel that orients visitors to Minuteman Missile National Historic Site as a unit of the National Park System, and shows the names and locations of other NPS units in the Black Hills region.

-- one bulletin case where rangers can post tour schedules (and the procedures for signing up for tours), safety warnings, resource management messages, and appropriate temporary and seasonal notices.

• **Plan, design, produce, and install a few (number to be determined) small low profile wayside exhibits on the interpretive deck at locations next to the large artifacts to be displayed on the deck.** -- these artifact-specific panels will briefly (with one or two graphics and brief text) interpret the large durable artifacts or facsimiles that may be displayed on the deck.

At Delta-01 -- Launch Control Facility and Launch Control Center:

• **Plan, design, produce, and install one upright wayside exhibit for the parking area outside the gate at a spot where it's readily visible.** -- a duplicate of the first panel described on the previous page that introduces visitors to the park's interpretive themes using brief text and compelling graphics, orients visitors to the locations of Delta-01 and Delta-09, tells visitors how (and where and when) they can sign up for site tours, and generally explains restrictions on visiting park sites.

• **Plan, design, produce, and install a low profile wayside exhibit at a spot outside, but near the gate where the LCC is almost under the visitors' feet.**--this site-specific interpretive panel would orient visitors to the visible LCF buildings, as well as the LCC which is about 30 feet underground and about 30 feet in front of this wayside exhibit.

At Delta-09 -- Launch Facility:

• **Plan, design, produce, and install three low profile, interpretive wayside exhibits.** These three wayside exhibits could be placed at the parking area outside the entrance gate, or spaced along the outside perimeter of the compound fence.

-- this site-specific interpretive panel would introduce visitors to the "neighbors" -- those ranchers and other local residents who lived (and still live) with nuclear weapons "in their back yard."

-- this site-specific interpretive panel would describe the visible and underground resources here (see art on page 26), would describe how they work, and would relate this Launch Facility to Delta-01s Launch Control Center.

-- this site-specific interpretive panel would describe why this missile silo (and hundreds like it throughout the upper Great Plains) is not readily visible, and would provide an overview to the Minuteman II missile system.

• **Plan, design, produce, and install one upright wayside exhibit for the parking area outside the gate at a spot where it's readily visible.** -- a duplicate of the first panel described on the previous page that introduces visitors to the park's interpretive themes using brief text and compelling graphics, orients visitors to the locations of Delta-01 and Delta-09, tells visitors how (and where and when) they can sign up for site tours, and generally explains restrictions on visiting park sites.

Estimated cost for buying 14 wayside exhibit bases for panels:	$7,000
Estimated cost for planning 10 original wayside exhibit panels:	$8,000
Estimated cost for designing 10 original wayside exhibit panels:	$18,000
Estimated cost for producing 14 wayside exhibit panels:	$7,000

Note: It is highly recommended that these short-term panels be made using a digital production method. Using this inexpensive, and more temporary, method will allow park staff to evaluate the panels' content/ accuracy and text clarity by either asking for visitors' on-site feedback, or by some other social science method of collecting visitor comments.

Publications

The short-term (and long-term) publication needs were discussed by the participants at the LRIP Workshop in October 2004. The primary recommendation for park publications needs is that the staff should:

• **Develop a park "free" publications plan that considers and lists the types of publications needed, intended audiences, distribution locations and strategies, frequency (and in what quantities) they are printed, and where the park stores the boxes of publications.** Estimated cost for developing a park publications plan: $1,000

Within the park publications plan, the following types of publications should be addressed:

-- Badlands National Park's newspaper, the "Prairie Preamble" (ask to include articles and perhaps a full-page on Minuteman Missile NHS)

-- Minuteman Missile NHS's unigrid brochure (Harpers Ferry Center is creating an interim unigrid brochure in 2005; to be printed in 2006)

-- Minuteman Missile NHS rack card (design and produce rack cards through a local vendor as a cost-effective way to create local awareness of Minuteman Missile NHS through distribution at rack card displays)

-- Minuteman Missile NHS press packets and press releases (write, compile, and mail press packets to regional and national newspapers)

-- Minuteman Missile NHS site bulletins (plan, design, and print site bulletins for visitor information, interpretation, and self-guiding tours)

-- Minuteman Missile NHS book/booklet (a cooperating association or publisher could work with the site on a Minuteman II missile book)

-- Minuteman Missile NHS mailers (develop free mailers that can be sent to people requesting basic park history and visitor information)

-- South Dakota Air and Space Museum brochure (work with this partner to add Minuteman Missile NHS directions to this publication)

-- South Dakota tourism and Black Hills travel publications (work with these organizations to include Minuteman Missile information)

-- South Dakota maps and Black Hills region maps (work with map publishers and promotional groups to add Minuteman Missile NHS)

In preparation for park publications as well as visitor orientation/ wayfinding needs, the staff should also:

• **Choose site names that will appear on maps and publications (e.g., Project Office or Park Headquarters?; Delta-01 or Launch Control Facility, or both? Delta-09 or Launch Facility, or both?)**

• **Initiate a parkwide Sign Program for motor vehicle directional signs off Interstate 90 to Headquarters, Delta-01, and Delta-09.**

Website

Harpers Ferry Center's web manager evaluated the park's website and offered the following recommendations:

• **Break the "History of Minuteman Missile Sites" (located under the "History & Culture" link) into smaller chapters.** Because of its enormous length, dividing this history into smaller chapters would enable web visitors to more quickly scan this park website link for information of particular interest to them.

• **Break the "Join Parker on VIB tour of Minuteman Missile NHS" (located under the "For Kids" link; also under the "News" link) into smaller pages that are accessible in an ordered sequence.** This web section is fun, but the images take too long to download and the presentation is a bit dated. Breaking it into smaller pages will help.

• **Build a "Virtual tour of Minuteman Missile NHS sites" program and locate it under the website's "Plan Your Visit" link.** Because Delta-01 and Delta-09 are not often open to the general public, more digital photos of these park units would help satisfy the curiosity that many visitors have about this new unit of the National Park System.

• **Begin to post oral history transcripts, historic photographs, brochure materials, and online exhibits.** This feature will encourage and provide online research opportunities. The site staff will build on this feature in the long-term recommendations.

• **Consider enabling the park website for a tour registration system and locate it under the website's "Plan Your Visit" link.** This feature would allow potential visitors to plan their trip remotely, and find out about tour schedules, tour openings, and site limitations.

• **Consider a proposal to provide links on the Web site to the Web sites of the Cold War Organizations listed on page 53 of this document.**

According to the NPS Washington Office schedule for implementation of the new National Park Service website using the "Common Spot" Content Management System (CMS), park websites in the Midwest Region will migrate to this new system in January 2006. Migration to this system would be a good time to begin implementing some of these website recommendations for an improved web visitor experience.

Interpretive Programs

On September 28, 2004, a conference call was held to discuss the park's future efforts in providing interpretive programs. Conference call participants made the following short-term recommendations:

• **Offer four 2-hour tours each weekday — two 6-person tours from 9:00 to 11:00 a.m. and two 6-person tours from 1:30 to 3:30 p.m. — during the summer of 2005.** At Delta-01, the interpreter for one group will take their group underground while the second tour group goes through the topside buildings; after about 30 minutes, the groups will switch. At Delta-09, if both park guides continue with the tour, one group could visit the launch tube (silo), and the second could tour the other resources before switching.

• **Hire two Park Guides for the summer to lead most of the park tours described above.** Bring these two Park Guides on duty in mid-May, train them (within Badlands NP's seasonal training if possible) in basic interpretive techniques, give them basic reading references for the park's history, and help them develop their respective tour outlines.

• **Develop outlines for tours of the park using one or more themes and sub-themes listed on pages 10-13 as each tour's foundation.** After the permanent park staff and seasonal park guides develop their tour outlines, have them reviewed in-house and consider having them reviewed by experienced interpreters at nearby NPS areas.

• **Give out stamped, park-addressed post cards (w/OMB approval) to every tour participant at the end of each tour and ask them to send back any feedback (both "positive" and "constructive" comments) they have on the tour's presentation.** As the summer season progresses, and at the end of the summer, evaluate the effectiveness of these tours and adjust them based on visitor evaluations.

• **Experiment with staffing Delta-09 at peak times (afternoons? mornings?) on summer weekends and weekdays; consider allowing visitors to enter the compound and tour it on a self-guided basis.** Also, consider developing a site bulletin for the Delta-09 compound.

• **Hire an employee to fill the site's vacant Cultural Resource Specialist position.** The Cultural Resource Specialist would collaborate and assist with interpretive operations through various services including historical research, display and exhibit design, and by conducting oral history interviews.

• **During each of the four seasons from 2006 through 2008, offer ranger-led tours as staffing levels allow; for example:**

Summer: 4 tours a day (see schedule above), Mondays through Fridays

Fall: 2 tours a day (10:00 - noon; 1:30 - 3:30) Tuesdays and Thursdays

Winter: 1 tour each day (10:00 - noon) on Tuesdays and Thursdays

Spring: 2 tours a day (same as Fall schedule)

Education Programs

On September 30, 2004, a conference call was held to discuss the park's future efforts in providing education programs. Conference call participants made the following short-term recommendations:

• **Contact the nearby NPS areas (Badlands National Park and Mount Rushmore National Memorial) that have an education specialist.** Discuss the potential for MIMI paying for some of these education specialists' salaries to help start MIMI's education program.

• **Survey the education efforts in other Cold War-related agencies and Presidential Libraries of Cold War-era presidents.** Contact NPS sites with Cold War resources and themes (e.g., Gateway NRA, Golden Gate NRA, Harry S Truman NHS, Jimmy Carter NHS), the Harry S. Truman Library and Museum, the Ronald Reagan Library, Department of Energy, Department of Defense, the Smithsonian Institution, the Atomic Energy Museum in Los Alamos, New Mexico, and the Gilder-Lehrman Institute of American History Summer Seminars on the Cold War. From each contact, ask if they have Cold War-related education lesson plans, resources, websites, or other information that may help Minuteman Missile NHS.

• **Search the internet for Cold War-related educational websites.** Contact the websites of the sites, agencies, and museums listed above; using this list as a starting place, make a thorough search of all websites that contain Cold War-related resources and lesson plans.

• **Write a "Parks As Classrooms" grant proposal to develop an educational website for MIMI.** Look at the education component of Golden Gate NP's website, and ask that park staff how they wrote their PAC grant proposal.

• **Arrange a meeting with MIMI staff, NPS education specialists, and teachers from local communities.** Discuss general coordination potential and some specific steps that can be made to pursue education initiatives between MIMI and local schools.

• **Develop an overall Education Plan for MIMI.** The park staff needs to take a critical look at its themes, program goals, audiences, and resources to help determine the park's approach toward education programs and how to link concepts like the "circle of learning" (information; to relationships; to enduring understanding).

• **Draft a program to utilize long-distance learning technology.** The park staff needs to explore all options for long-distance learning.

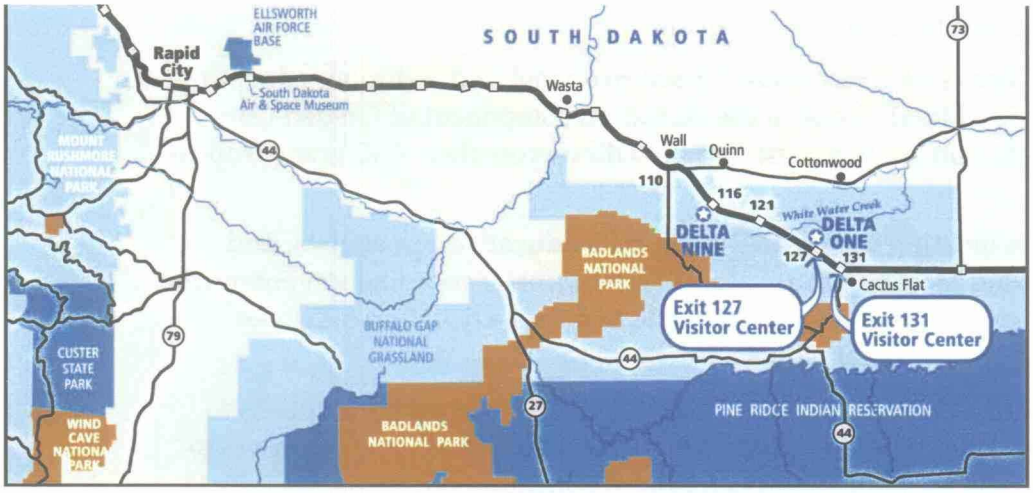
LONG-TERM RECOMMENDATIONS

Visitor Facilities

Introduction

At the LRIP Workshop held in October 2004, participants split their recommendations into the short-term actions (listed on pages 41-53) that can be taken in this LRIP's first 4 years and long-term actions that can be taken in the 5 to 10 years after this LRIP is approved. Most of the long-term actions listed on the following pages are dependent on funds for constructing a new park visitor center/administration facility.

The draft General Management Plan (GMP) identified two possible sites for this facility. The two proposed sites for this facility are located along the Interstate 90 (I-90). One site is at exit 131 on I-90 at the northwest corner of the intersection of I-90 and County Highway 240. The other site is at exit 127 on I-90 at the southwest corner of the intersection of I-90 and the access road to Delta-01. This site would allow a view toward the launch control facility at Delta-01. The preferred alternative in the draft GMP proposes a visitor center at Exit 131.



Minuteman Missile NHS Regional Map, NPS draft GMP

When the GMP/EIS for Minuteman Missile NHS is approved, it will have determined on which location the future visitor center/administration facility will be constructed. This LRIP has neither the authority nor the intent to recommend the future location of this facility. The concepts presented on the following pages can be applied to either location.

Two Concepts

One building design concept, Conceptual Design A, was presented at the LRIP Workshop in October 2004 to illustrate how the site/building and interpretation could be integrated into a unique visitor experience. The intent in presenting this potential building design concept was to encourage the workshop participants to "think outside the box."A second building design concept, Conceptual Design B, was drawn up after the LRIP Workshop. The intent of this second building design concept was to incorporate the interpretive opportunities and other design criteria that were discussed at the LRIP Workshop in October, and to provide an alternative for park management to consider. It is important to stress that these two concepts present possible ideas or options as to what the future visitor center/administration facility may look like. These concepts are meant to stimulate discussion and creative thinking. The actual facility design may incorporate many or all of these concepts, or the future design may be entirely different from two ideas. Note that an Environmental Assessment or an EIS (as determined appropriate) will accompany a development plan before this visitor center/administration facility is designed and built. In both concepts, the sloped building forms will create elements rising out of the prairie landscape, and reflect the same sloping form as the missile silo's glass enclosure. By placing these concepts in the text of the document, we do not intend to imply or emphasize an "either/or" nature of the proposal. Like the missile silos that were integrated into the South Dakota landscape in the 1960s, the visitor center facility should reflect the same site integration. Using vegetated roof elements, berms along exterior walls, and sloping exterior walls of the building into the site would create this integrated image at either location. Along with interpretive potential, other factors such as NEPA compliance, environmental sustainability, and value analysis will also influence the decision of how the facility will be designed and constructed.

The visitor arrival sequence can play an important part in the visitors' experience. In both concepts, anticipation builds as visitors approach the structure. In both concept site plans, an entrance driveway centers on the axis of the building and its geodesic center to create a dramatic arrival experience and to see the full impact of the structure and the dome. The parking areas should be located to the sides of the entrance drive to avoid blocking the dramatic view of the structure from the interstate and from the entrance drive. One important role for the future of Minuteman Missile NHS is the idea of providing opportunities for civic engagement on the themes, roles, and ramifications of the Cold War within the context of Minuteman Missile. Here, the NPS can bring together individuals and organizations with different, and sometimes opposing, points of view concerning the site's themes, Cold War lectures, and discussions. The NPS would facilitate an exchange of multiple perspectives to further discussions of such meaningful topics. In turn, the visitor opportunities to witness these engagements and the educational benefits for historic learning could be unprecedented.

Conceptual Design A

In Conceptual Design A, the building and site design is based on architectural symbolism and creating a unique visitor experience:

- Two opposing building elements (shed roof structures) converging would symbolize the two opposing world powers. These two sloped building elements would reflect the same shape as the missile silo's glass enclosure. (See photos of missile silo enclosure on page 32.)
- The outdoor interpretive entrance plaza would be used for setting the stage for the visitor experience. An open stainless steel geodesic dome frame would be placed between the two opposing building elements. The support ring for the dome frame would be supported by concrete columns and extended building walls. Visitors could walk through the entrance plaza under this open dome frame.
- For some visitors, the stainless steel geodesic dome frame over the entrance plaza could represent the world that was caught between the conflict of the two super powers. For other visitors, the shape of the geodesic dome could represent the "mushroom cloud" of an atomic explosion, or represent the molecular structure of the atom.
- Seat walls and benches would be located under and/or around the geodesic dome's perimeter frame to create a place of reflection and contemplation for the visitor. See exhibit recommendations on page 70 for possible sculptural element/s or interpretive feature/s that could be used as a focal point in this entrance plaza area.
- The domed entrance plaza area could also be used for ranger talks and special NPS and/or community events as desired.
- The concrete columns and wall extensions used to support the structural support ring of the open dome frame at this entrance plaza area could be used as memorial columns to pay tribute to the missile squadrons (as well as Air Force and contract personnel who died on the job) located in this region or other interpretive stories as desired.
- During the LRIP Workshop in October, participants discussed a few suggestions for a central focal point within the entrance plaza area:

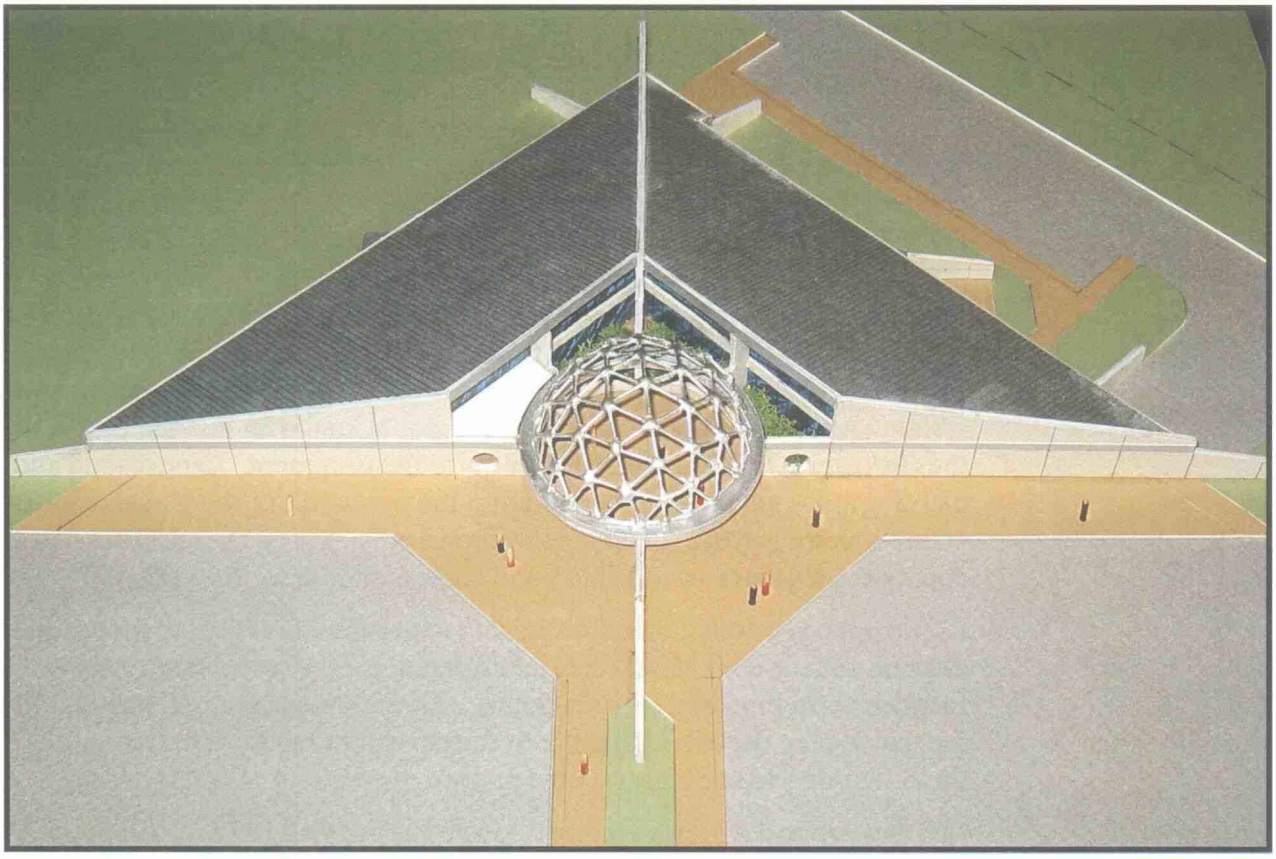
-- One concept was to have full size bronze statuary of a launch control console of the U.S.A and the U.S.S.R. missile systems. If sculptures of missileers from both superpowers were made, they could be in the correct position in front of each console, with a thick concrete divider wall with broken ends separating the two consoles; If empty launch control chairs are used, visitors would have the opportunity to sit in the chairs and reflect upon the responsibility that individuals had in performing their mission if called upon. See exhibit recommendations on page 70 for more details and additional interpretive elements.

-- Another possible interpretive concept for the entrance plaza area would be to create a global map inlaid into the pavement under the geodesic dome frame of the entrance plaza. The north pole would be the center of this global map placed directly under the center point of the geodesic dome frame above. A red line of some type of material inlaid into this global map would connect the Delta-09 missile site in South Dakota to the intended target in the U.S.S.R. (if targeting data is available) to represent the path of a missile to the intended target. This would be a sobering image perhaps causing visitors to reflect on the consequences of such a missile launch and the resulting effects to the U.S.A, U.S.S.R., and the rest of the world. As an option, other missile paths could be inlaid into the pavement to show the magnitude of the ICBM system. Another option would have the global map with just the U.S.A. and the (former) U.S.S.R. in different colors in the pavement. Landscaped and planting areas would be integrated into the perimeter of the global map to create a peace garden. Benches at selected areas within the entrance plaza could create a place of reflection and contemplation for the visitor.

-- The open geodesic dome (or the area under the dome) could incorporate elements of the 66th Missileer Squadron patch – the world meridians and parallels form the stainless steel dome, with the missile and stars above with the global map described inlaid into the pavement below. This would tie these two sites to the bigger global picture.

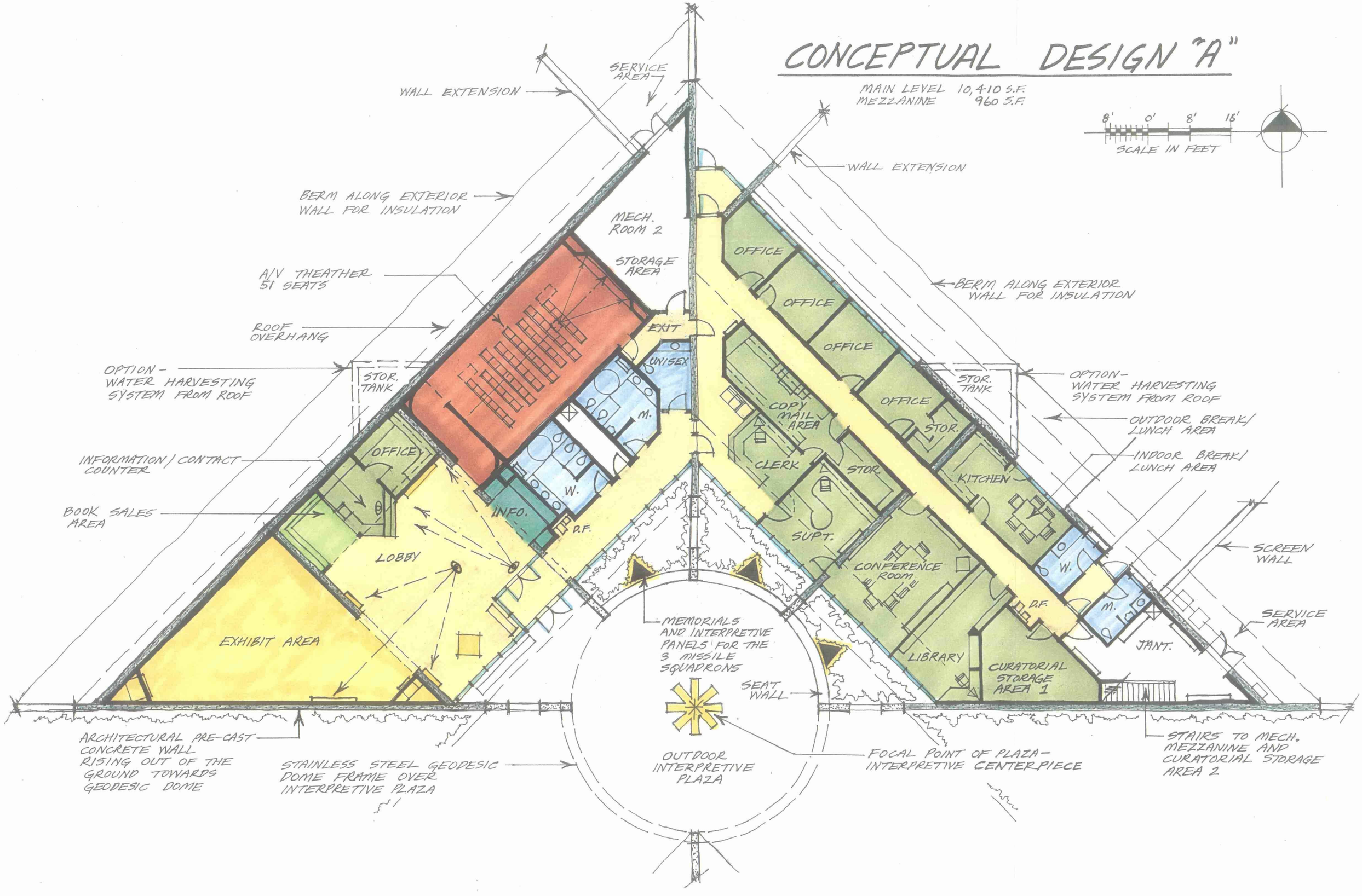
-- If this proposed visitor facility is located at the Exit 127 site, a vegetated roof would be recommended in order to reduce the visual impact of this facility as seen from the Delta-01 site looking to the south. Berming of the exterior walls and the vegetated roof would integrate the structure into the rural South Dakota landscape just as the launch control center and the missile silo were.

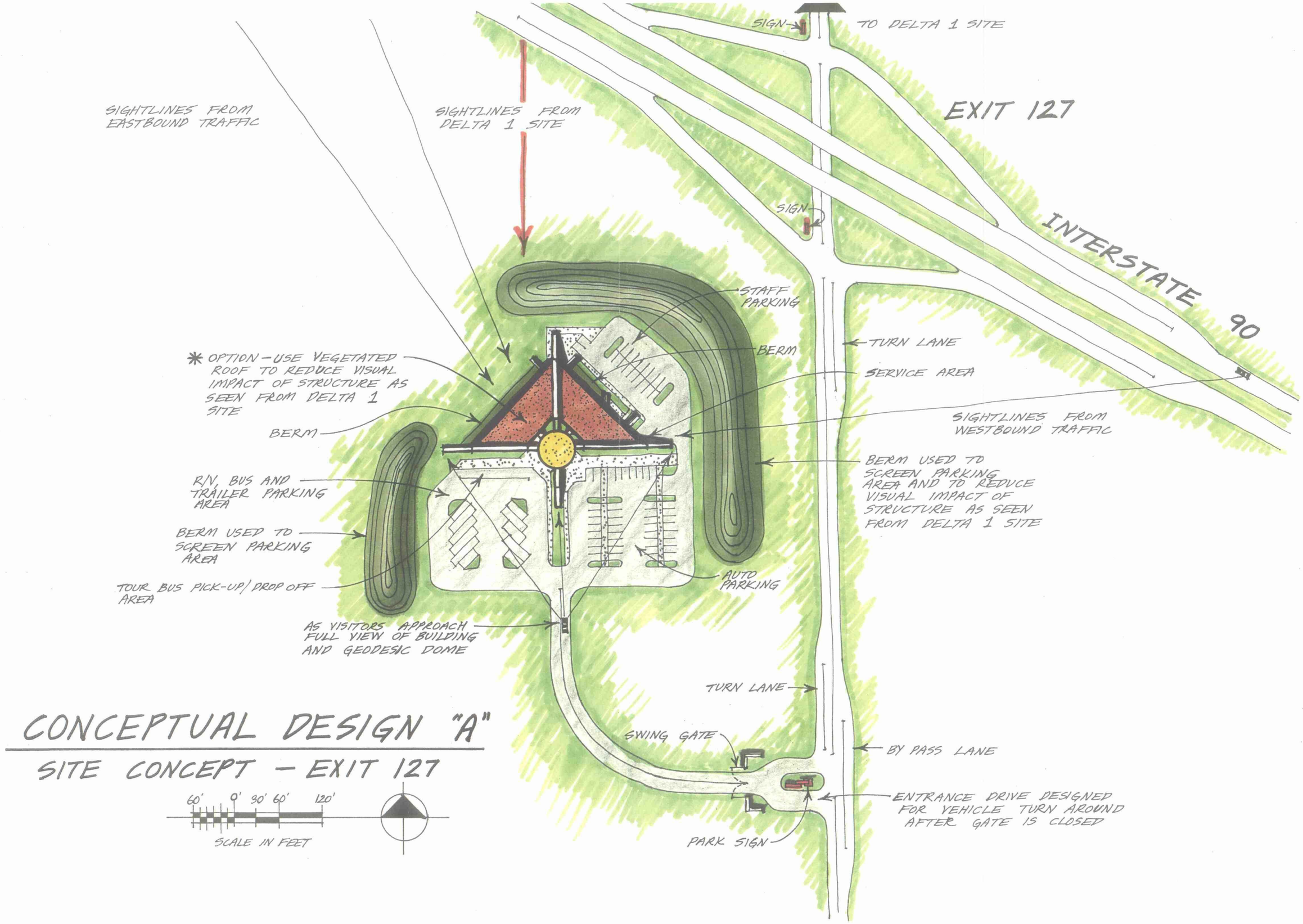
--The orientation of the visitor center structure would be eight and a half degrees east of south to reflect the same orientation of the missile silo. This orientation could be an interpretive story as well.



CONCEPTUAL DESIGN "A"

MAIN LEVEL 10,410 S.F.
MEZZANINE 960 S.F.





CONCEPTUAL DESIGN "A"

SITE CONCEPT – EXIT 127

Conceptual Design B

In Conceptual Design B, the building and site design are based on architectural symbolism and creating a unique visitor experience, similar to Conceptual Design A. Both concepts share the following:

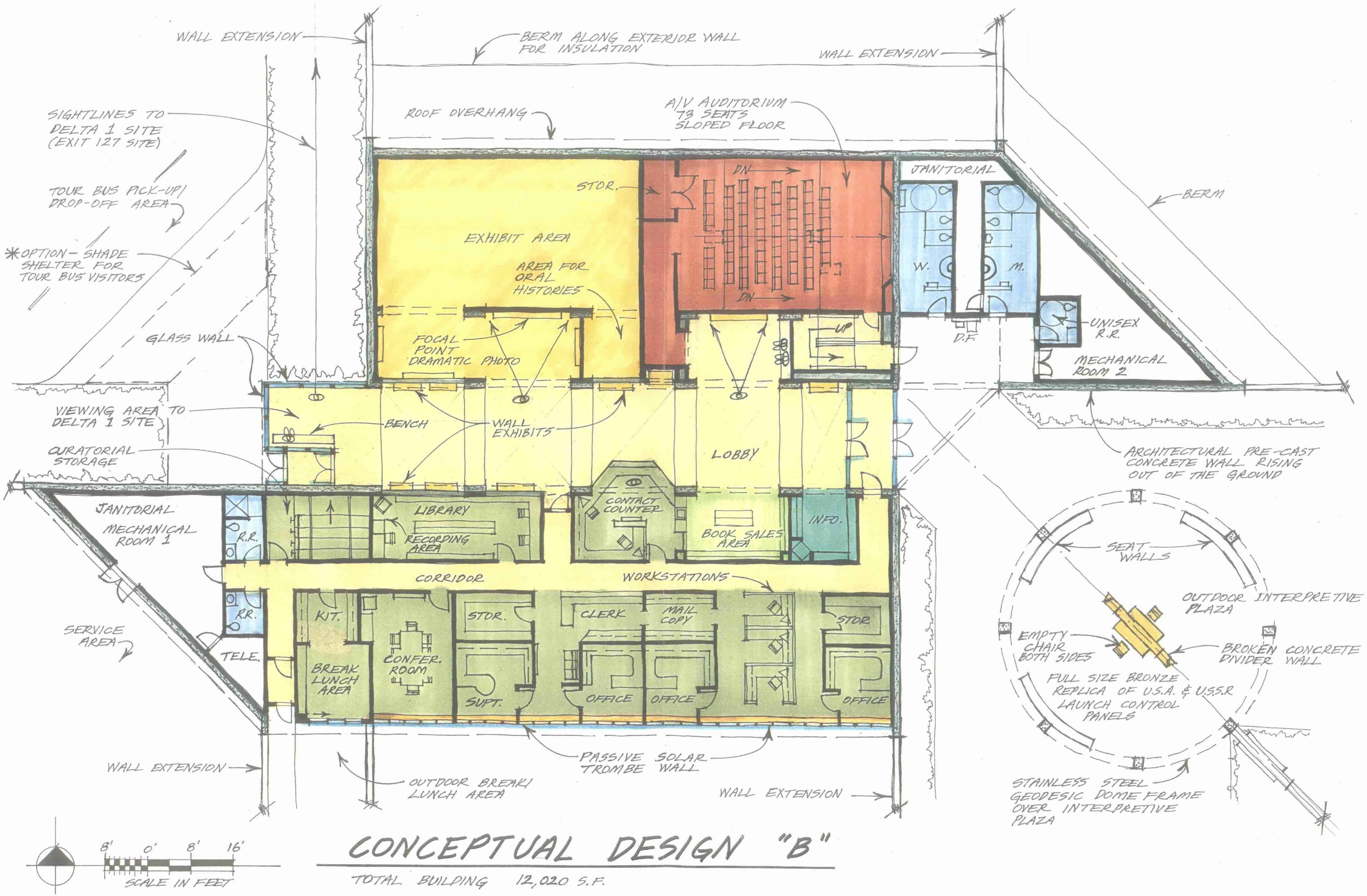
- Two opposing building elements (shed roof structures) converge to symbolize the two opposing world powers during the Cold War. These two sloped building elements would reflect the same shape as the missile silo's glass enclosure.
- An outdoor interpretive entrance plaza that sets the stage for the visitors' experience. An open stainless steel geodesic dome frame between the two opposing building elements, with a support ring for the dome frame that is supported by concrete columns and extended building walls.
- Seat walls and benches under and/or around the open geodesic dome frame to create a place of reflection and contemplation for the visitor; this domed entrance plaza area could also be used for ranger talks and special NPS and/or community events as desired.
- Concrete columns and wall extensions could be used as memorial columns to pay tribute to the three missile squadrons located within this region or other interpretive stories as desired.
- A number of options for a central focal point within the entrance plaza.

Also, in Conceptual Design B, a secondary outdoor plaza located at the opposite end of the lobby area could be used for a tour shuttle bus pick-up/drop-off area, an amphitheater for ranger programs, a ranger talk/staging area prior to the tour, a static outdoor exhibits for larger items, or for staging special events. In the summer, visitors could go outdoors into the second plaza area to view the Delta-01 site. Telescopes could be provided within this plaza area for a closer view of the facilities at Delta-01 for those visitors not going on the tour.

Interior Interpretive Opportunities in the Lobby Area

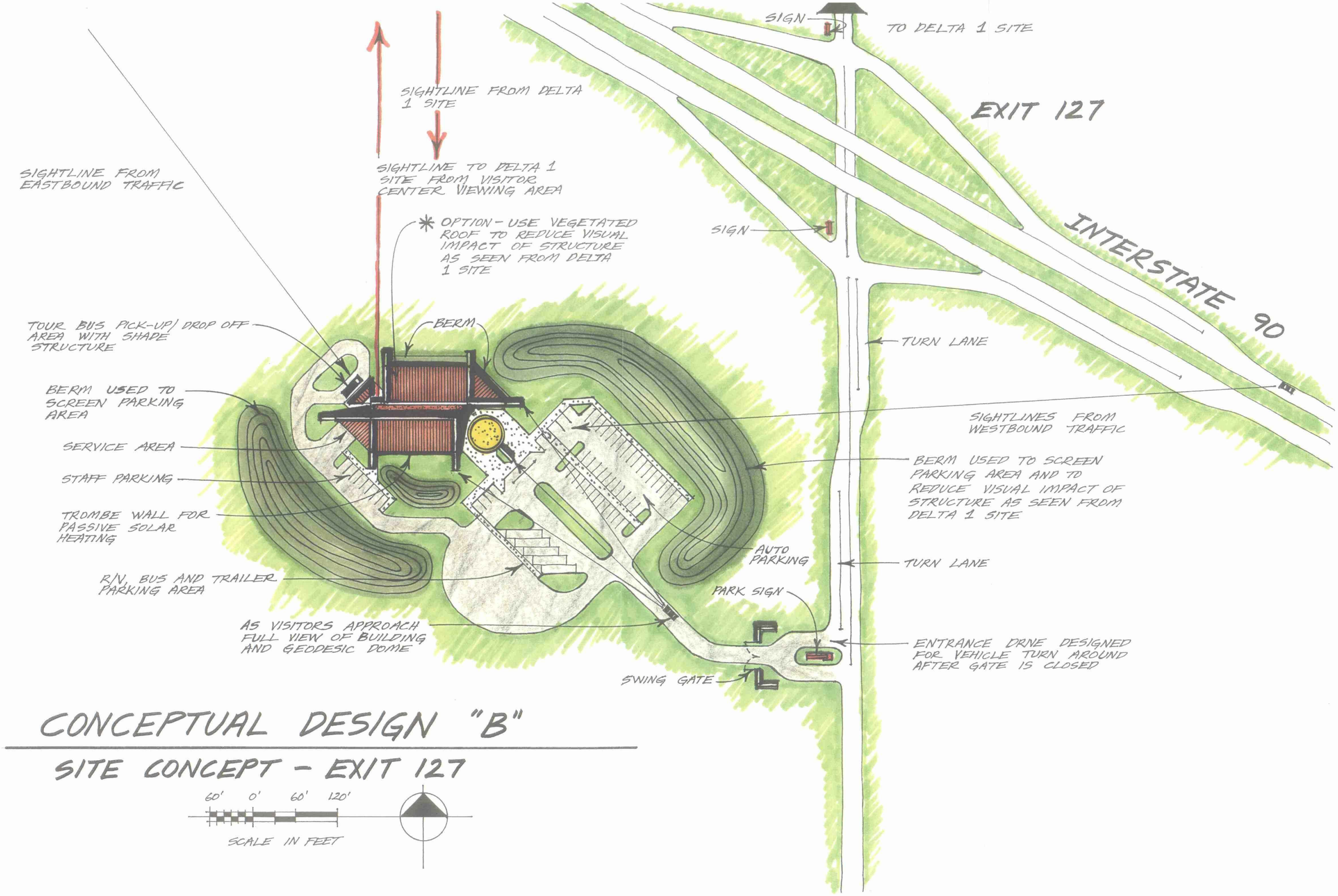
Conceptual Design A

- After visitors walk through a glass vestibule area and into the open lobby area, a high wall there provides an opportunity for a dramatic image or exhibit to set the stage for the indoor visitor experience.
- Within the large open lobby area, there is space for additional free- standing exhibits that could be changed seasonally.
- The open floor of the lobby area could be a stained colored concrete with patterns of score joints creating random crossing and diagonal lines. At selected junctions of these score lines, free-standing exhibits could be located to reflect the conflict between opposing countries.
- An area located out of the main circulation pattern of the lobby is provided for a large raised-relief map or other large exhibit/s.
- A high sloping wall forms the entrance into the main exhibit area from the lobby area. The two walls flanking the entrance provides an opportunity for large images or exhibits. This area could be dramatically lighted to enhance the visitor entrance into the main exhibit area.
- With the high glass exterior southeast wall of the lobby area facing onto the entrance plaza, the entire lobby area will be daylighted.



CONCEPTUAL DESIGN "B"

TOTAL BUILDING 12,020 S.F.



CONCEPTUAL DESIGN "B"

SITE CONCEPT - EXIT 127

Conceptual Design B

- After passing through a glass vestibule area, visitors enter a large open lobby area that spans the entire length of the building. A glass viewing window is located at the other end of this lobby area, allowing visitors to see through the entire lobby space to the rural landscape beyond. This view reinforces the dichotomy of this pastoral rural landscape with the weapons of mass destruction hidden under the landscape.
- This open lobby space between the two opposing building elements would be used as the main building circulation corridor and the open floor area could also be used for displaying seasonal exhibits. A large raised-relief map of the region and the locations of the region's missile sites could be displayed within this open lobby area. Diagonal and crossing score patterns in the stained concrete floor surface of the lobby area could be used to accentuate the opposing walls and support columns, and to highlight free standing exhibits within this open area.
- Opposing lobby wall areas could be used to display wall panels or exhibits reflecting the two opposing sides of the Cold War, and/or large photographs of life in the U.S.A. and U.S.S.R. during the Cold War period, or other interpretive stories.
- If the proposed facility is located at the Exit 127 site, visitors will be able to view the Delta-01 site from a viewing window located at the end of the open lobby area. In the winter, this would allow visitors to see at a distance part of the resource from a heated, weather-protected environment. In the summer, visitors could go out into the second plaza area to view the Delta-01 site. Telescopes could be provided within this plaza area for a closer view of the facilities at Delta-01 for those visitors not going on the tour. Other interpretive exhibits could be located outdoors within this plaza area if desired. This plaza area could also be used as the tour bus pick-up/drop-off area and the ranger talk/staging area prior to the tour. The location of the window and outdoor plaza at the end of the sequence of the visitor's indoor interpretive experience works well in this building concept. By using a vegetated roof for the roofing material on the sloped roof building elements on this facility and by berming of the north and northeast walls, the visual impact of the facility in the rural landscape would be greatly reduce as seen from the Delta-01 site.

Main Exhibit Area

Conceptual Design A

- In Conceptual Design A, the wall areas flanking the entrance to the main exhibit area becomes a focal point drawing the visitor into the main exhibit area. These wall areas could be used for large graphic images or other exhibit concepts as desired. Dramatic lighting and a taller wall height would provide an interpretative opportunity for reflection and contemplation before entering the main exhibit area.
- Upon entering the main exhibit area, an angled wall with a very high sloping ceiling creates another opportunity for a dramatic wall exhibit before visitors enter the darkened main exhibit space.
- In Conceptual Design A, the angled corners of the main exhibit space provide unique areas for placement of built-in monitors or other exhibit cases as desired.
- The main exhibit area would have an open floor area without support walls and support columns for the greatest flexibility in exhibit designs. A sloping ceiling would provide opportunities for dramatic exhibits a various heights and sizes with dramatic lighting effects.
- As part of the exhibit area and the visitor experience, an alcove area for visitors to sit and listen to oral histories could be provided. These oral histories could be integrated into the floor and wall exhibits within the exhibit space as well.
- All wall areas must be designed for mounting and for the structural loads of various exhibits and panels.
- Flexibility in the lighting system should be considered. Dark areas for light sensitive artifacts and exhibits, and possible daylighting for other exhibit areas (e.g., where large, non-sensitive artifacts are displayed) to reduce electrical loads and energy costs for the facility.
- Consider displaying specific books that pertain to the exhibit subject matter with the exhibits. This could help to promote sales and increase revenue for the cooperating association and the park.
- A computer work station for accessing a virtual tour and a database of historic photographs and films. Also, a searchable database where former missile personnel, friends, and family members could search for specific individuals.

Conceptual Design B

- In Conceptual Design B, the entrance wall to the lobby area becomes a focal point to draw visitors into the main exhibit area. Dramatic lighting and a taller walls would provide an interpretative opportunity for reflection and contemplation before entering the main exhibit area.
- The main exhibit area would have an open floor area without walls and support columns for flexibility in exhibit designs
- As part of the exhibit area and the visitor experience, an alcove area for visitors to sit and listen to oral histories is provided. These oral histories could be integrated into the floor and wall exhibits within the exhibit space as well.
- All wall areas must be designed for mounting and for the structural loads of various exhibits and panels.
- Flexibility in the lighting system, dark areas for light sensitive artifacts and exhibits, daylighting for other exhibit areas (e.g., where large, non-sensitive artifacts are displayed) to reduce electrical loads and energy costs for the facility.
- Consider displaying specific books that pertain to the exhibit subject matter with the exhibits. This could help to promote sales and increase revenue for the cooperating association and the park.
- A computer work station for accessing a virtual tour and a database of historic photographs and films. Also, a searchable database where former missile personnel, friends, and family members could search for specific individuals.

Audiovisual (A/V) Area

Conceptual Design A

- In Conceptual Design A, the A/V auditorium is located so that the vestibule area and lobby area would have to be open for it to be used for after hours programs while the rest of the visitor center is locked off. This arrangement is not as flexible as Conceptual Design B.
- The public restrooms are located and designed for access after hours if desired. Interior access from the vestibule area allows the public restrooms to be open after hours or for nighttime special events while the rest of the visitor center is locked.
- Consider locating an LED time countdown sign with appropriate signage (perhaps designed as an atomic clock) near the entrance to the auditorium to give visitors information as to the next showing of the main audiovisual program.
- The entrance into the A/V auditorium is designed using a light/sound trap configuration, thereby eliminating the need for doors which often create distractions and noise problems.
- For optimal viewing, fixed staggered auditorium seating with a sloped floor were recommended at the LRIP Workshop.
- The A/V auditorium should be designed for multi-media presentations to give the park the most flexibility. The auditorium should also have a state-of-the-art sound system and screen.
- A storage area is provided adjacent to the A/V auditorium for storage of additional equipment such as speaker podiums, flip charts, video monitors on carts, and additional movable chairs.

Conceptual Design B

- In Conceptual Design B, the A/V auditorium is located so that it can be used after hours while the rest of the visitor center is closed. The required fire exit allows ingress and egress of groups of visitors, such as school children, without going through the main lobby area. This secondary entrance into the entrance plaza allows greater flexibility to moving groups of visitors through the lobby, through the auditorium, and back out into the entrance plaza.
- The public restrooms are located and designed for access after hours if desired. Interior access from the vestibule area allows the public restrooms to be open after hours or for nighttime special events while the rest of the visitor center is closed.
- A waiting /staging area is provided near the A/V entrance area for visitors. Ample seating area with wall exhibits creates a pleasant waiting area for the visitor. This waiting area is daylighted with the clerestory above.
- Consider locating an LED time countdown sign with appropriate signage (perhaps designed as an atomic clock) near the entrance to the auditorium to give visitors information as to the next showing of the main audiovisual program.
- The entrance into the A/V auditorium is designed using a light/sound trap configuration, thereby eliminating the need for doors which often create distractions and noise problems.
- For optimal viewing, fixed staggered auditorium seating with a sloped floor were recommended at the LRIP Workshop.
- The A/V auditorium should be designed for multi-media presentations to give the park the most flexibility. The auditorium should also have a state-of-the-art sound system and screen.
- A storage area is provided adjacent to the A/V auditorium for storage of additional equipment such as speaker podiums, flip charts, video monitors on carts, and additional movable chairs.

Tourism/Trip Planning Area

- In both Conceptual Designs A and B, an alcove near the entrance area could be used for displaying region tourism and trip planning information.
- Wall racks of brochures, counter space, wall maps, and built-in video monitors could also be displayed within this area to promote tourism within the region.
- In Conceptual Design B, this high visitor use area is daylighted from above by the clerestory to reduce energy loads and operational costs.

Library Area

As the Cold War generation ages, oral histories will become an important interpretive component for the park archives. A private, secluded recording/video area should be provided as part of the park library area for visitors, with the assistance of the park staff, to develop oral and video histories for the park archives. Here — in a controlled, quite setting — visitors and the staff could produce oral and video histories in a comfortable setting. Vertical cabinets containing separate files on each missileer who worked in the missile field could be incorporated.

Curatorial Storage Area

Undoubtedly, the park curatorial collection will grow as the Cold War generation ages. A curatorial storage and a research area should be provided within this facility (or a comparable facility at Badlands NP) that allows expansion of the collection. Rotating exhibits using these artifacts could add freshness to the visitor experience and continue to attract repeat visitors over the years. Flexibility in the exhibit areas should accommodate a variety of potential artifacts. As in Conceptual Design B, consideration should be given to a possible future outdoor static display area for larger items.

Sustainable Design and Opportunities for Interpretation

Consideration should be given to the interpretation of sustainable design principals and concepts used at this site and within the proposed building as a minor, secondary interpretive story.

Within Executive Order 13123, "Greening the Government," and as part of the Green Parks Program, the goal should be to ensure that when the public visits this and other NPS units, they will learn that the NPS is a leader in environmental management.

The concept of sustainable design goes hand-in-hand with the overall NPS mission of conservation of not only "the scenery and natural and historic objects, and wildlife therein," but should also include current conservation topics such as energy, water, and construction resources.

There is value in showcasing and demonstrating sustainable design to promote energy and water conservation concepts. Teaching the next generation to save energy, water, and construction resources is important for the future of our country.

Due to the vast number of visitors who visit all the NPS units throughout the year, the NPS is the ideal governmental agency to promote, demonstrate, and reach millions of visitors with a sustainable design message. The NPS could be a leader in changing the way this country views and uses its energy, water, and other natural resources.

Like the visitor center at Zion National Park, consider using small plaques or exhibit panels to interpret sustainable features throughout the site and visitor center at Minuteman Missile NHS. These secondary interpretive messages will promote the concept of sustainable design principles.

Economic/Industrial: There is a natural tie between this theme and the Technology theme on the previous page, and they should be closely related in the exhibits. This theme should address the mobilization of military and industrial forces to create a ballistic missile system that had significant national — and also local — economic impacts. This exhibit should look at the convergence of the defense industry and the military, as addressed in Dwight Eisenhower's speech of 1961 where he said, *"This conjunction of an immense military establishment and a large arms industry is new in the American experience. The total influence — economic, political, even spiritual — is felt in every city, every State house, every office of the Federal government...we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military industrial complex."* Other possible exhibits could show the growth of Rapid City due to Ellsworth Air Force Base and Defense spending

Exterior Exhibits at the future Visitor Center

Wherever the future visitor center is located, the new exhibits should be broad and inclusive in their interpretive perspective. Visitors should come away understanding that the events that led to the development and deployment of the Minuteman missile systems, and the deactivation of the 44th missile wing were not black and white. The exhibits that present the story should be rich in artifacts and be experiential in approach, utilizing recreated objects or situations and design elements that evoke the hopes and fears that these weapons embodied.

It is recommended that visitors be presented with interpretive media as they approach the visitor center. Entering the visitor center through an interpretive courtyard, visitors could encounter a sculptural vignette of two missileers seated at their launch control panels. Embedded in the walkway below visitors' feet could be lines representing the cable connections that radiate out to ten 1/20th scale missiles standing on an encircling wall or support structure. Overhead, a dome representing the world overarches the scene. Each of the two U.S. crew members presented in the sculpture would be echoed by a Soviet missileer, with the two divided by a thick concrete wall that symbolizes the barrier that stood between competing ideologies.

• **Contract for the planning, designing, producing, and installing of a sculpture of two missileers seated at U.S. launch control panels, with two other missileers seated at U.S.S.R. launch control panels.** Initial estimates for planning, designing, producing, and installing this sculpture and the interpretive concrete elements range between: $300,000-$500,000

It is also recommended that the park plan, purchase, produce, and install a series of NPS Identity signs to direct motorists off of Interstate 90 and into the Visitor Center's parking lots. Further, the park should plan and purchase a series of wayfinding signs for pedestrians to and around the visitor center. Estimated cost for these signs is: $10,000

• **Expand the park Sign Program for motorists and pedestrians to the new Visitor Center off of Interstate 90 and to the parking lots.**

Interior Exhibits in the future Visitor Center

The main exhibit starts in the lobby where that space opens directly into the main exhibit area. Consider having visitors enter the exhibit area through a reproduction "blast door" to evoke a Launch Control Capsule-like feeling within visitors. (This area might also simulate some Missileer training and a "warbled tone.") Visitors will then be presented with exhibits that address what the Minuteman missile system was and still is, focusing on the people of the Air Force who operated it honorably and in service to their country. The opening exhibits set the stage for developing the background story embodied in the main themes and informs visitors, many of whom will be a bit shaky in their knowledge of the network of weaponry that once would have surrounded them. Some technical exhibits may be needed to explain the weapons' technologies. The thrust of the opening exhibits is summarized in the question: "How did we as a nation and the world get to the point where we were just thirty minutes from total annihilation?"

The overarching story of the Cold War is introduced at this point and permeates the rest of the exhibit area. At strategic spots throughout the exhibits, visitors are presented with provocative questions and diverging viewpoints about the Cold War. The four theme areas below and on the following two pages will be presented within that context:

Technology: The technology of the Minuteman missile system was complex and involved the participation of a vast network of contractors, suppliers, and Air Force personnel who developed and ran the system. The speed with which the system was constructed was an outgrowth of the threats to U.S. security, perceived and real, starting after World War II. Possible exhibit elements to develop this theme may include: a solid fuel booster model compared and contrasted to earlier ballistic missiles (Titan and Atlas); how hydrogen bombs and warheads work; guidance systems, and how the warheads could be launched more than six thousand miles to its target on the other side of the world (This might make a good interactive exhibit.); how they built the missile system; and how they staffed the system 24/7 for 30 years. A wealth of artifacts should be available to tell this story in combination with photographs, graphics, and interpretive text.

Economic/Industrial: There is a natural tie between this theme and the Technology theme on the previous page, and they should be closely related in the exhibits. This theme should address the mobilization of military and industrial forces to create a ballistic missile system that had significant national- and also local- economic impacts. This exhibit should look at the convergence of the defense industry and the military, as addressed in Dwight Eisenhower's speech of 1961 where he said, " *This conjunction of an immense military establishment and a large arms industry is new in the American experience. The total influence-economic, political, even spiritual-is felt in every city, every State house, every office of the Federal government...we must guard against the acquisition of unwarranted influence, whether sought or unsought,*

by the military industrial complex." Other possible exhibits could show the growth of Rapid City due to Ellsworth Air Force Base and Defense spending during the Pre-Cold War and post-Cold War. Media that fits into this exhibit area are audiovisual presentations utilizing historic footage (that might also be included in a feature audiovisual show); photography of research, development, testing and production of missiles and warheads; and possibly objects and/or artifacts that are commercial spin-offs of the ballistic missile development programs.

Politics: The realization of the destructive capability of the combined nuclear forces of the super powers during the early years of the Cold War grew into the U.S. policies of strategic deterrence and mutually assured destruction. The era shaped the political balance of the world for a generation. Exhibits might include an interactive map showing the locations of the missile forces of the U.S. and U.S.S.R. in which a visitor can play out several nuclear war game scenarios showing the outcomes with each (e.g., number of people killed, destruction of property in dollars, effect on the environment). This exhibit might include air and naval nuclear forces deployed by both sides; this would give visitors a good idea of the arms race and how extreme the philosophy of "Mutually Assured Destruction" was followed. This exhibit might be "played" by turning two keys simultaneously to activate. Another exhibit section might be called "Making the rubble bounce" (a quote from Winston Churchill) would deal with the reasoning behind having so many warheads and the concept of mutually assured destruction. An exhibit on "The Home Front" could deal with the politics of nuclear war and how it focused debate within the U.S. on our role in world affairs. A exhibit section on the START treaty could deal with dismantling some of the nuclear systems, including the 44th missile wing located here and perhaps the move to a peace based more on communication and mutual trust. These exhibits could have graphics and artifacts related to the weapons and silos of the 44th missile wing.

Human/Cultural: The development of the nuclear intercontinental ballistic missile had far reaching effects on the culture of the U.S. and the world. This section of the exhibit should address the popular view of the nuclear age, in the press, radio, music, and movies. A highly engaging exhibit section utilizing these archival and still commercially available lively media should be developed. A section of this theme area should be devoted to the effect of people planning for surviving a nuclear war on their social structures and the mindset of the American people. Included could be the Civil Defense program, preparedness/survival supplies, early warning systems (e.g., sirens, emergency broadcast system) public education campaigns. Media included here would be historic photos, artifacts such as a air raid siren; a sculptural vignette showing a row of 3 or 4 elementary school students crouching under their desks in a duck and cover exercise, as the original 1951 "Duck and Cover" film illustrates; and archival graphics and audiovisual elements that support exhibits that draws from first person accounts of the Cold War era.

Changes in the way of life for thousands of people who owned and lived on the land in and around the Minuteman missile system should be featured in another section related to this theme area. These exhibits would explain how these people changed and adapted to the destructive force that lay beneath the ground around them and the knowledge that they were in the bulls eye for incoming Soviet warheads. First person interviews with those who lived around the missile sites and gave up land for their construction should be presented in an audiovisual format with a variety of voices of ranchers and townspeople. The area communities should be highlighted with changes that were brought with the influx of people and money that came with the construction, operations, and maintenance of the Minuteman missile system.

• **Contract for the planning, designing, producing, and installing of exhibits in an exhibit area of approximately 2000 square feet.** Estimated cost for planning, designing, producing, and installing exhibits based on the recommended space allotment: $950,000

Audiovisual Programs in the future Visitor Center

The eventual and promising prospect of a visitor center facility will allow for a deeper exploration into the rise of the military/industrial complex in both the U.S. and the Soviet Union, the Minuteman missile system's development and its decommissioning, the story of the Cold War, the tension that existed between two world powers, the effect that "mutually assured destruction" had on this nation, and the men and women who would be called upon to start an irreversible chain of events. The visitor experience will include multiple points of view about the Cold War and the role of the Minuteman missile system.

One major challenge in interpreting this stories at Minuteman Missile National Historic Site is its location near Badlands National Park and Mt. Rushmore National Memorial. With most visitors' mindsets being deep in vacation mode, they may not be not ready to face the Cold War and its implications. This initial hurdle may be difficult to get over.

To help overcome this hurdle, it is recommended that the park develop a memorable interpretive film of about 20 minutes in length that sets the sites of Minuteman Missile NHS into the greater context of the Cold War, the development of the Minuteman II missile system, the effects of the Cold War on the United States and other countries, and the military personnel who staffed these and many other launch control facilities. The primary interpretive themes that may be covered in this film include the Cold War, Human/Cultural, and Politics. Most importantly, this film needs to be highly interpretive and evocative. The film would interpret its topics with a wide variety of scholars, eye-witnesses, and current visitors to provide multiple points of view.

This film should be developed in conjunction with the indoor exhibits to provide a complementary visitor experience. This file, however, should also stand on its own for the visitors who see only the film (without seeing the exhibits), and give them a sense of the Cold War and how Minuteman Missile NHS fits into that context. The film might be reproduced as a DVD and sold as a sales item in the visitor center. Other films of various lengths may be considered that focus more on the sites and missile personnel.

• **Develop an interpretive audiovisual program to be used as the primary audiovisual offering in the new visitor center auditorium.** This park "film" will cover the park's primary interpretive themes. Estimated cost of this audiovisual program is $500,000 to $600,000.

Beyond the interpretive film, it is recommended that a series of "real-time" cameras be installed at strategic locations within the Delta-01 and Delta-09 facilities. Using images from these cameras, a real-time tour of Minuteman Missile NHS should be created for the majority of visitors who will not be able to go into those facilities because of the logistical restrictions of time and space. These cameras — and the real-time tours resulting from them — should also become part of the park education program's long-distance learning opportunities.

• **Install cameras and broadcast equipment at strategic locations at Delta-01 and Delta-09 for real-time tours of those sites for the visitor center and for long-distance learning venues.** This park "real-time" tour is critical for the park's "virtual visitor" to access the historic resources. Estimated cost of the cameras, broadcast equipment, and monitors in the visitor center will be determined at a later date.

Further, it is recommended that the park consider that a number of video segments be incorporated into some exhibit components.

• **Produce DVDs to be part of the new visitor center's exhibits.** Estimated cost of editing and producing exhibit DVDs: $50,000.

Wayside Exhibits

At the future Visitor Center:

Traditional wayside exhibits outside the future visitor center will be few and located near the entrance to the visitor center. The purposes of these wayside exhibits will be: to provide orientation to the site (especially for those visitors who arrive after the building is closed); provide bulletin case space; and, perhaps, interpret the sustainable nature of the visitor center's architectural elements and symbolism.

• **Produce a duplicate (or slightly revised version) of the panel that was developed for the Project Office (see page 48) and install it (in-ground or wall-mounted) outside the visitor center entrance.** This upright wayside will introduce visitors to the park's interpretive themes using brief text and compelling graphics, orient visitors to the locations of Delta-01 and Delta-09, and generally explain the restrictions on visiting these park sites.

Estimated cost of producing this wayside in porcelain enamel: $5,000.

• **Produce a bulletin case like the one developed for the Project Office (see page 48) and install it (in-ground or wall-mounted) outside the visitor center entrance.** This bulletin case will give park rangers the opportunity to post tour schedules (and the procedures for signing up for tours), safety warnings, resource management messages, and appropriate temporary and seasonal notices. Park staff should use a professionally designed approach (e.g., poster/s) to avoid a messy look.

Estimated cost of producing this bulletin case wayside: $1,000.

• **Plan, design, produce, and install one or more (number to be determined) low profile wayside exhibits at or near the building's architectural elements outside the visitor center entrance.** These interpretive panels will briefly (with one or two graphics and brief text) interpret the sustainable nature of the building's architectural elements.

Estimate for planning, designing, producing these waysides: $5,000.

At Delta-01 and Delta-09:

Besides the few wayside exhibits outside the future visitor center, the wayside exhibits for Delta-01 and Delta-09 (that were recommended on page 49) will remain and become permanently produced and installed after the short-term evaluation period is completed.

• **Produce the wayside exhibits (that were planned and produced in a temporary format as recommended on page 49) and install them permanently at Delta-01 and Delta-09.**

Estimates for producing these waysides in porcelain enamel: $22,000.

At other National Park Service areas in/near the Black Hills:

Since Minuteman Missile NHS is one of six NPS areas in or near the Black Hills of South Dakota, it is recommended that a wayside exhibit be planned and designed (in cooperation and coordination with the other nearby NPS areas) that promotes/advertises all of the region's NPS areas with a message of "You are at this NPS area; consider visiting these other nearby NPS areas." Once a panel layout design is agreed-upon for this wayside exhibit, multiple panels (at least six with an appropriate number of back-up panels) will be produced as well as six upright bases. These upright wayside exhibits will be installed at:

Mount Rushmore National Memorial

Wind Cave National Park

Jewel Cave National Monument

Devils Tower National Monument

Badlands National Park

Minuteman Missile National Historic Site

• **Plan, design, produce, and install (in-ground or wall-mounted) one upright wayside exhibit at 6 NPS areas in/near the Black Hills.** Estimate for planning, designing, and producing waysides: $30,000.

At visitor centers and rest areas along the Interstate-90 Corridor:

It is also recommended that a wayside exhibit be planned and designed (in cooperation and coordination with other agencies) that promotes Minuteman Missile NHS. Once a panel layout is agreed-upon for this wayside exhibit, multiple panels (at least seven with an number of back-up panels) will be produced as well as seven upright bases (in-ground or wall-mount). These wayside exhibits will be installed at:

Wasta rest area along Interstate-90

Tilford rest area along Interstate-90

Chamberlain rest area along Interstate-90

Presho rest area along Interstate-90

Belvedere rest area along Interstate-90

South Dakota Air and Space Museum near Ellsworth AFB

Berlin Wall exhibit in Rapid City, South Dakota

National Grasslands pulloff/overlook between Kodoka and Catus Flat

• **Plan, design, produce, and install (in-ground or wall-mounted) one upright wayside exhibit near 8 visitor centers.** Estimated costs for planning, designing, and producing these wayside exhibits: $40,000.

Media for the South Dakota Air and Space Museum

As noted on page 34, partnering with the South Dakota Air and Space Museum is within the enabling legislation that created Minuteman Missile NHS. This partnership should include cooperative efforts to upgrade the exhibits, audiovisual programs, and wayside exhibits the museum uses to interpret the Minuteman II missile system. Therefore, it is recommended that these cooperative efforts include the following:

Interior Exhibits and Audiovisual Programs

Interior exhibits in the museum serve their visitors well. It is recommended, however, that the Air and Space Museum work with the National Park Service in pursuing funding strategies that can help make some of these exhibits even better. For example, the existing exhibit of the interior and console of a test Launch Control Center has a visitor-activated audiotape program; by editing and shortening the script and upgrading the sound clarity, this audio could be even more effective in providing a quality visitor experience within that exhibit. Also, a few additional exhibits related to the operations of the Minuteman missile system could increase visitor understanding of the how the Air Force has managed this missile system for more than 40 years. Some of the supporting exhibits might also inform visitors of the existence of the Minuteman Missile National Historic Site and its mission to preserve a part of the Minuteman II missile system.

- **Incorporate quotations from a member of a crew about serving in each particular aircraft.** Such quotations would help to personalize the interpretation.
- **Contract for upgrading the existing audiotape that interprets and describes the test console from the Minuteman II missile LCC.** Estimated cost of upgrading and editing audiotape for LCC: $15,000.
- **Contract for planning, designing, producing, and installing new exhibits that interpret the Minuteman Missile system and orient museum visitors to Minuteman Missile National Historic Site.** Estimated cost for planning, designing, producing, and installing four to six digital graphic panels with photos and text: $55,000

Wayside Exhibits

Currently, South Dakota Air and Space Museum's missiles, airplanes, and helicopters have basic informational signs next to each aircraft. It is recommended that the Air and Space Museum coordinate with the National Park Service in planning, designing, and producing a few prototype interpretive wayside exhibits for some selected aircraft. Each prototype might include a historic photograph of each aircraft in action, a succinct text block that describes one of its critical missions, and a timeline that shows the Cold War era (1946-1991) as well as the aircraft's years of service (e.g., 1957-1965). The arrowhead logo of the National Park Service and the logo of the South Dakota Air and Space Museum could be placed on these joint-venture wayside panels.

After the prototypes are produced and installed next to the selected aircraft, it is recommended that the Air and Space Museum pursue funding (either through Air Force sources or donations from private organizations or individuals) to plan, design, produce, and install wayside exhibits for all of the approximately 30 outdoor aircraft.

• **Plan, design, produce, and install two or three (number to be determined) low profile wayside exhibits for outdoor aircraft.** Estimated cost of planning, designing, and producing two or three prototype wayside exhibits for aircraft displayed outdoors: $5-10,000.

• **Plan, design, produce, and install approximately 25 (number to be determined) low profile wayside exhibits for outdoor aircraft.** Estimated cost of planning, designing, and producing approximately 25 wayside exhibits for aircraft displayed outdoors: $50-70,000.

Publications

As noted in the short-term publications recommendations on page 50, the primary recommendation was that the park staff should:

• **Develop a "free" park publications plan that considers and lists the type of publications needed, intended audiences, distribution locations and strategies, frequency (and in what quantities) they are printed, and where the park stores the boxes of publications.**

By the time the park builds a visitor center, the following long-term publication needs should be addressed:

-- instead of having only an articles within Badlands National Park's newspaper, the *Prairie Preamble*, Minuteman Missile NHS should **develop its own Minuteman Missile NHS newspaper or newsletter.**

-- instead of relying on the interim unigrid brochure (which was made to serve the park for about five years), Minuteman Missile NHS should **work with HFC or a contractor to develop a full unigrid brochure.**

-- instead of writing, designing,, and printing site bulletins in-house on visitor information, interpretation, and safety info, the park should **work with professional designers to upgrade site bulletins' quality.**

• **Develop a National Park Service handbook for Minuteman Missile NHS:** This will provide an introduction to the Cold War era, discuss the Minuteman Missile system, and illuminate the role of U.S. Air Force personnel and civilians in constructing and maintaining the sites. The political, social, and diplomatic aspects of the Minuteman system would be given wide coverage. After being published, the handbook would be available for sale at both the site and partner organizations. This dissemination of information in a highly readable book would be of great value to both lay readers and serious students of the Cold War.

Also in preparation for a new visitor center, the park staff should:

• **Develop a Scope of Sales Statement plan that considers and lists the types of publications that might be sold in the cooperating association's bookstore to be located in the new visitor center.**

Website

In the long-term, it is recommended that the park:

• **Consider hiring a contractor to revise and update the park Website.** Most NPS park staffs do not have the expertise or time to keep their park Websites updated. Check with the park managers at nearby NPS areas; if any of these parks contract for their Website management, get the name/s of the contract firm/s, and ask them for a price quote.

Interpretive Programs

As discussed earlier, various aspects of future interpretive operations, including interpretive programs, are contingent upon budget and staff constraints. If current OFS requests are recognized, future interpretive programs will continue to be on a seasonal basis during three distinct tour seasons: a summer season from Memorial Day to Labor Day, shoulder seasons in spring/fall, and a winter season.

• **In the summer, offer 6 tours of 18 visitors each on a daily basis;** these tours will last approximately 1 1/2 hours. At Delta-01, three park guides will rotate their groups every 20 minutes between the exterior topside, interior topside, and the underground Launch Control Center. A maximum of 18 visitors can be at Delta-01 at any one time, 6 visitors with each park guide. Some or all of these tours may have the option to drive from Delta-01 to Delta-09; increasing the tour to 2 1/2 hours.

• **In the spring and fall shoulder seasons, offer 4 tours of 18 visitors each day; winter season tour schedules will offer 2 tours a day.** A shuttle bus system will be used to bring visitors to and from Delta-01, and possibly to and from Delta-09. This will control overall visitation to the site while also enhancing the visitor experience and providing for optimum protection of the resource. While on the shuttle buses, park guides can interpret information on the Minuteman Missile system and its role in the Cold War.

• **In addition to the regularly scheduled tours, open Delta-09's Launch Facility on a daily basis to the general public.** Visitors not on guided tours will be able to explore the grounds in a self-guided style. During each season, specific hours of operation will be advertised with longer open hours in the summer and shorter open hours in the winter. The maximum number of visitors at Delta-09 will depend on future parking facilities. Staff logistics will be determined in order to provide some interpretive employees and/or volunteer staff there. During periods of heightened visitation, such as the summer season, additional volunteers could be on site at both Delta-01 and Delta-09 to assist visitors understand the resource. Ideally, these volunteers would be former missile field personnel who could interpret the site.

• **For visitors unable to reserve a tour, show tours in progress in the Launch Control Facility on monitors in the visitor center.** Cameras will be installed at vital locations throughout Delta-01. This "virtual experience" will allow visitors who were unable to reserve one of the limited on-site tour slots to see and hear the ranger-led tours. Or, visitors could watch a high-quality videotaped version of the tour.

• **Offer ranger, volunteer or museum docent-guided tours of the visitor center several times a day.** These guided tours will focus on the background and context in which the Minuteman Missile system was developed during the Cold War. Rangers will discuss various exhibit artifacts which illustrate the Minuteman's role in our nation's defense and squarely place the missile system within the overall historic era of the Cold War.

• **Offer interpretive programs and special events after the visitor center closes.** These after-hours interpretive activities would provide an additional avenue to reach local visitors and the general public who would not otherwise have the opportunity to participate in the daily guided tours of Minuteman Missile NHS. Possibilities could include evening tours of Delta-01 and Delta-09, "open house" events for the local communities, special (but only occasionally) tours into the silo at Delta-09, evening film festivals and lecture series on the Cold War, civic engagement programs, and various living history special events.

Education Programs

Additionally, please refer to the short-term actions for the Education Program including the preparation of an Education Plan. The plan will assist in determining how many local schools the historic site will target for its education program. In the long-term future, Minuteman Missile NHS will become one of the innovators of Long Distance Learning technology within the park's Education Programs.

• **Adapt Long Distance Learning technology to show live video feeds of educational tours (including guided tours) of both Launch Control Facility Delta-01 and Launch Facility Delta-09 to school districts throughout the United States.** The long-term plan is to eventually extend the capabilities of the program to include interested educational institutions throughout the globe. These programs will allow students to not only better understand the meanings inherent in park resources, but also meet required educational curriculum requirements for appropriate history subject matter.

• **Prepare an educational packet that can be sent to teachers before their classes participate in the Long Distance Learning Program.** This packet will contain learning activities such as worksheets, handouts, map reviews, and other pertinent materials that will help students understanding the Minuteman missile system and the Cold War.

• **Use the National Park Service ""STEP" (Student Temporary Employment Program) hiring program.** STEP and other internship programs will bring college students to Minuteman Missile NHS to work on learning products and programs that will enhance educational outreach.

• **Use the visitor center for "civic engagement" opportunities.** At Minuteman Missile NHS, the NPS will have a "first-time" opportunity to provide civic engagement on a variety of Cold War topics relevant to the site's interpretive themes. In addition to experiencing the visitor center, visitors and the general public can be provided the opportunity to participate (actively or passively) in educational programs, facilitated by park staff or other professionals, at the future visitor center. The proceedings could take place in a specially designed — but modest — "Cold War" lecture hall at the visitor center or in its theater.

• **Develop partnerships with universities in South Dakota.** These might include graduate studies in museum and archival records.

PARTNERSHIPS

Site staff will progressively build partnerships with organizations affiliated with the park. Priority will be given to creating a Friends of Minuteman Missile NHS group. The partnership primarily will work with the historic site on land issues. These issues may include helping maintain the historic integrity of the landscape through conservation easements.

National organizations such as the Cold War International History Project and other interested research entities will eventually be invited to contribute papers and discussions at conferences held each year at the Visitor Center. These conferences will focus on debating Cold War issues with an emphasis on American military efforts (especially the Minuteman program) and its overall effects on international politics.

Regional, state, and local partnerships will emphasize promotion of Minuteman Missile NHS. The park will also work to inform visitors of partnering organizations, tourist oriented services, and attractions.

• **Existing partnerships for Minuteman Missile NHS include:**

Ellsworth Air Force Base

South Dakota Air and Space Museum

Badlands National Park

Association of Air Force Missileers

Cold War International History Project

• **Expand the site's partnerships over the next five years:** Routine contacts and relationships (less-than-active partnerships) with the other entities listed below need to be developed and/or maintained:

Friends Group (to be developed)

Cooperating Association (to be developed)

South Dakota State Historic Preservation Office

South Dakota Department of Tourism

Black Hills, Badlands, and Lakes Association

Local Chambers of Commerce

LIBRARY NEEDS

Considering Minuteman Missile NHS's status as a recent addition to the National Park System, the site has a very good library collection. Its 178 titles include books and videotapes/DVDs covering a wide selection of Cold War themes.

The site will continue identifying library needs with a long-range goal of having a separate room in the visitor center to house all printed and audiovisual resources. An effort was begun in FY06 to select books that will be added for both general and specialized research pertaining to the Cold War. These books will be available to park staff. They will allow the staff to give visitors up-to-date programs based upon the most current scholarship pertaining to the site's historic era. Library access will also be provided for scholars and the general public.

The existing library collection has been cataloged with Procite access software and is available for online searching through the NPS Voyagers library system. Additional resources acquired in the coming years will also be cataloged using Procite.

Funds from the interpretive division will be used to fill library needs. In addition, possible funding might also come from future fee collection proceeds.

Someday the library could provide internet access for its patrons to the archival collections of various Cold War organizations, especially the Cold War International History Project.

COLLECTION NEEDS

Museum collections in the NPS serve four fundamental functions: acquisitions, preservation, research, and interpretation. The more than 100 million items that are throughout the National Park System are the tangible icons of this country's heritage. They make parks more understandable for visitors by providing something tangible to tie to each park's story. Minuteman Missile NHS's artifacts and museum collections — at Delta-01, Delta-09, at the future visitor center, and elsewhere — can reach many visitors and provide the framework that supports ideas, events, and features commemorated at the site.

Most of the collection will be stored at nearby Badlands National Park with some appropriate items and archives stored on site at the future visitor center/administration facility. Displaying some of the museum collection will increase its value to scholars and other researchers, as well as for everyday visitors. The site's Scope of Collection Statement will focus on supporting interpretive exhibits and the tangible resources at Minuteman Missile NHS, and will not become a general repository for Cold War objects. In addition to accessed and cataloged museum collections, Minuteman Missile NHS may acquire "spare parts" for Delta-01 and Delta-09 assembled by U.S. Air Force personnel.

As a start-up NPS area, the site's collection needs are significant. Complete development of a museum program, along with associated plans, need to be drafted and implemented. Specific plans include:

- Scope of Collections Statement
- Collections Management Plan
- Checklist for the Preservation and Protection of Museum Collections
- Collection Condition Survey
- Collection Storage Plan
- Integrated Pest Management
- Housekeeping Plan
- Environmental Monitoring
- Access
- Security
- A "parent" Resource Management Plan

RESEARCH NEEDS

Effective planning of interpretive media and ranger-guided programs requires a thorough and accurate understanding of park visitors and their use of those media and programs. One of the best ways to gain this understanding is by asking park visitors to report on and evaluate their park experience. The NPS Visitor Services Project provides an opportunity for visitors to voice their opinions through participation in visitor surveys. Analysis of survey results can provide park managers with usable knowledge about visitors and their park experiences. A significant portion of data collected in visitor studies is relevant to park managers in planning interpretive media and ranger-guided programs.

Several cultural resource-related research needs will provide useful information for interpretive program planning and development. Four such projects have been added to Minuteman Missile NHS's PMIS proposals: Historic Structures Report, Cultural Landscape Report, Historic Furnishings Report, and Archeological Survey. Also, several of the museum-related plans listed on the previous page have been added to the list, and the site continues developing an ongoing oral history project.

Cultural resource and interpretive-related research will focus in the short term on expanding the park's knowledge base through the Oral History project. Several sets of interviews were completed at the end of FY05. Several more are scheduled for the beginning of FY06. These interviews will be a first line resource used by park staff to prepare accurate interpretive programs. The park will continue implementation of PMIS cultural resource proposals to include funding of further Oral History interviews and work toward a comprehensive database program of all missile field personnel.

STAFFING NEEDS AND COSTS

The existing staff of Minuteman Missile NHS is listed on page 36. The NPS preferred alternative in Minuteman Missile NHS's draft GMP recommends the future staff to be:

Position Title	Status	Grade	FTE
Park Ranger, Superintendent	Perm FT	GS-13	1.00
Administrative Support Assistant	Perm FT	GS-6	1.00
Clerk	Seasonal	GS-5	0.50
Supv Facility Operations Specialist	Perm FT	GS-11	1.00
Maintenance Mechanic	Perm FT	WG-9	1.00
Custodian	Perm FT	WG-4	1.00
Custodian	Perm FT	WG-4	1.00
Custodian	Seasonal	WG-4	0.50
Laborer	Perm FT	WG-4	1.00
Chief, V&RP and I&VS	Perm FT	GS-12	1.00
Park Ranger (Visitor & Res. Protection)	Perm FT	GS-5/7/9	1.00
Park Ranger (V&RP); 50-50 w/BADL	Seasonal	GS-5	0.25
Education Specialist	Perm FT	GS-11	1.00
Park Ranger (Interp & Visitor Services)	Perm FT	GS-5/7/9	1.00
Park Guide	Perm FT	GS-5	1.00
Park Guide	Perm FT	GS-5	1.00
Park Guide	Perm FT	GS-5	1.00
Park Guide	Seasonal	GS-4	0.50
Park Guide	Seasonal	GS-4	0.50
Park Guide	Seasonal	GS-4	0.50
Cultural Resource Specialist	Perm FT	GS-11	1.00
Museum Technician	Perm FT	GS-7	1.00
Museum Technician	Seasonal	GS-5	0.50
Preservation Specialist	Perm FT	GS-9	1.00

Total Positions: 24 **Total FTEs: 20.25**

Total Staffing Costs (salaries) based on FY 06 figures: $1,062,700

In addition to the draft GMP/EIS staff listing, it has been recommended that the following positions also be considered because of the historic site's emphasis on interpretation, education, and visitor services.

Position Title	Status	Grade	FTE
Media Specialist	Perm FT	GS-11	1.00
Chief of Interpretation and Visitor Services	Perm FT	GS-11	1.00

IMPLEMENTATION PLAN

The measure of success of any plan is the extent it is implemented. Initial implementation strategies need to be both realistic and flexible. The implementation plan for the Long-Range Interpretive Plan (LRIP) outlined on the following pages is an initial blueprint for change. Because funding opportunities and priorities often change, park managers need to adjust the implementation strategies to adapt to changing conditions. Therefore, this LRIP should be updated annually as Part 6 (Status of Implementation Plan) within the park's Annual Implementation Plan (AIP).

Over the next 10 years, employees in the positions listed below should form an **Implementation Team** to guide the accomplishment of this LRIP's Implementation tasks as outlined on the following pages:

Title	Location
Superintendent, Minuteman Missile NHS	MIMI Project Office Hdqtrs
Cultural Resource Specialist, Minuteman Missile NHS	MIMI Project Office Hdqtrs
Park Ranger, Minuteman Missile NHS	MIMI Project Office Hdqtrs
Maint. Mech., Minuteman Missile NHS	MIMI Project Office Hdqtrs
Chief of Interpretation and Education	MWRO - Omaha, Nebraska

The NPS employees filling the above-listed positions should confer annually to devise/adjust the funding strategies and task assignments to ensure the implementation of this Long-Range Interpretive Plan.

Conclusion

Never before has the opportunity presented itself for the National Park Service to conserve and interpret the thematic topic of the Cold War as told through the Minuteman II missile defense system. During Congressional hearings leading up to Minuteman Missile NHS's enactment, testimony stated that "*This is an unprecedented window of opportunity to preserve for the American public the ability to view and contemplate this significant period of U.S. history — the secret underground world of the nuclear missile, silently poised beneath the peaceful prairies of the Great Plains...*"Together with other units within the National Park System, Minuteman Missile NHS has a twenty-first century responsibility of great importance. It is to proclaim anew the meaning and value of national parks, conservation, and recreation; to expand the learning and research occurring in national parks and share that knowledge broadly; and to encourage all Americans to experience these special places. The staff at Minuteman Missile NHS is committed to providing opportunities for visitors to explore their own intellectual and emotional connections to the natural and cultural resources that comprise our shared heritage.

SHORT-TERM RECOMMENDATIONS

Task(s)/Step(s)	(from page #)	Responsible Position/s
Temporary Visitor Center in new Modular Building next to MIMI Project Office		
Purchase and install a second modular building	page 44-45	MIMI Superintendent; Maint.
Build an interpretive deck between the buildings	page 44-45	MIMI Superintendent; Maint.
Purchase/build "screens" in front of the buildings	page 44-45	MIMI Superintendent; Maint.
Improve the landscaping and install a flagpole	page 44-45	MIMI Maintenance Mechanic
Purchase two NPS directional signs for SD Hwy 240	page 44-45	MIMI Maintenance Mechanic
Exhibits for the Temporary Visitor Center next to MIMI Project Office		
Contract to plan, design, and produce exhibit panels	page 46	MIMI Superintendent
Contract to plan, design, and produce exhibit cases	page 46	MIMI Superintendent
Contract to plan and design outdoor exhibit panels	page 46	MIMI Superintendent
(Note: The above three tasks/steps could be done with one contract)		
Purchase and install indoor exhibit "track" lighting	page 46	MIMI Maintenance Mechanic
Purchase "Park Identity" and "Visitor Center" signs	page 46	MIMI Superintendent
Audiovisuals for the Temporary Visitor Center next to MIMI Project Office		
Collect oral histories from missileers and others	page 47	MIMI CRS; partners
Develop an audio kiosk to hear oral histories	page 47	MIMI CRS; Supt.
Develop a short video on how MIMI was created	page 47	MIMI CRS; Supt.
Convert footage of MIMI missiles being tested	page 47	MIMI CRS; Supt.
Develop a videotape "surrogate tour" of MIMI	page 47	MIMI CRS; Supt.
Wayside Exhibits for all MIMI Interpretive Deck, Delta-01, and Delta-09		
Buy 14 wayside exhibit bases (for the panels below)	page 48-49	MIMI Supt.; CRS
Plan 10 "original" wayside panels (and 4 "dupes")	page 48-49	MIMI Supt.; CRS
Design 10 "original" wayside panels (and 4 "dupes)	page 48-49	MIMI Supt.; CRS
Produce 14 wayside exhibit panels	page 48-49	MIMI Supt.; CRS
Install 14 wayside exhibit bases and panels	page 48-49	MIMI Supt.; CRS

* "Official" cost estimates for the media listed on these pages will be provided by Harpers Ferry Center in a separate document; Contact HFC at (304) 535-5050 to request these estimates.

Short-term tasks / Mid-term tasks / Long-term tasks

Fund Source/Estimate*	2005	2006	2007	2008	2009	2010	2011	2012	2013
_____/$113,000	XXX								
_____/$ 15,000		XXX							
_____/$ 5,000		XXX							
_____/$ 500		XXX							
_____/$ 3,600		XXX							
_____/$ 6,000	XXX								
_____/$10,000	XXX								
_____/$12,000	XXX								
_____/$ 3,000		XXX							
_____/$ 6,000		XXX							
_____/$10,000	XXX	XXX	XXX	XXX (on-going)					
_____/$20,000		XXX							
_____/$40,000		XXX							
_____/$ 5,000		XXX							
_____/$60,000			XXX						
_____/$ 7,000		XXX							
_____/$ 8,000		XXX							
_____/$18,000		XXX							
_____/$ 7,000			XXX						
_____/$ 5,000			XX						

SHORT-TERM RECOMMENDATIONS

Task(s)/Step(s)	(from page #)	Responsible Position/s
Publications (and Signs)		
Develop a "free" Publications Plan for MIMI	page 50	MIMI Superintendent; staff
Choose site names that will appear on maps, signs	page 50	MIMI Superintendent; staff
Develop a parkwide Sign Program for MIMI	page 50	MIMI Superintendent
Website		
Break "History of MIMI Sites" into chapters	page 51	MIMI Supt.; CRS
Break "Join Parker on a MIMI tour" into chapters	page 51	MIMI Supt.; CRS
Build a "Virtual Tour of MIMI"	page 51	MIMI Supt.; CRS
Enable the Web site to reserve MIMI visitor tours	page 51	MIMI Supt.; CRS
Interpretive Programs		
Offer four tours each day in Summer of 2005	page 52	MIMI Superintendent and staff
Hire two Park Guides in Summer of 2005	page 52	MIMI Superintendent
Develop outlines for MIMI tours	page 52	MIMI Superintendent and staff
Gather feedback from visitors on MIMI tours	page 52	MIMI Superintendent and staff
Experiment w/ staffing and self-guiding at Delta-09	page 52	MIMI Superintendent and staff
Hire a Cultural Resource Specialist	page 52	MIMI Superintendent
Keep a regular tour schedule through the seasons	page 52	MIMI Superintendent and staff
Education Programs		
Contact nearby NPS sites for Education assistance	page 53	MIMI Supt.; CRS
Survey Ed. Programs at other Cold War-related sites	page 53	MIMI Supt.; CRS
Search internet for Cold War-related websites	page 53	MIMI Supt.; CRS
Write a PAC grant for a MIMI Education website	page 53	MIMI Supt.; CRS
Arrange meeting with MIMI staff, educators, others	page 53	MIMI Supt.; CRS
Develop an overall Education Strategy for MIMI	page 53	MIMI Supt.; CRS

* "Official" cost estimates for the media listed on these pages will be provided by Harpers Ferry Center in a separate document; Contact HFC at (304) 535-5050 to request these estimates.

Short-term tasks / Mid-term tasks / Long-term tasks

Fund Source/Estimate*	2005	2006	2007	2008	2009	2010	2011	2012	2013
_____/$ 1,000		XXX							
N/A		XXX							
_____/$ 5,000			XXX						
N/A		XXX							
N/A		XXX							
N/A			XXX						
N/A			XXX						
N/A	XXX								
ONPS funds/$ 5,000	XXX								
N/A	XXX								
N/A	XXX								
N/A	XXX								
ONPS funds/$50,000		XXX							
N/A	XXX	XXX	XXX	XXX					
N/A		XXX							
N/A		XXX							
N/A		XXX							
N/A		XXX							
N/A		XXX							
N/A			XXX						

LONG-TERM RECOMMENDATIONS

Task(s)/Step(s)	(from page #)	Responsible Position/s
Future Visitor Center		
Complete MIMI's GMP; select location of future VC	page 54	MIMI Superintendent; DSC
Do preliminary planning for the future Visitor Center	N/A	MIMI Superintendent; DSC or ?
Contract for A&E for the future Visitor Center	N/A	MIMI Superintendent; DSC or ?
Contract for Construction of the future Visitor Center	N/A	MIMI Superintendent; DSC or ?
"Ground-breaking" for the future Visitor Center	N/A	MIMI Superintendent; DSC or ?
"Ribbon-cutting" for the new Visitor Center	N/A	MIMI Superintendent
Exhibits for the Future Visitor Center		
Plan, purchase "Park Entrance" and directional signs	page 68	MIMI Superintendent
Contract to plan, design, produce outdoor sculpture	page 68	MIMI Superintendent; DSC or ?
Contract to plan and design main interior exhibit	page 71	MIMI Superintendent; HFC or?
Contract to produce and install main interior exhibit	page 71	MIMI Superintendent; HFC or?
Audiovisuals for the Future Visitor Center		
Contract for video components of VC exhibits	page 72	MIMI Superintendent; HFC or?
Cotract for the primary AV program in VC theater	page 72	MIMI Superintendent; HFC or?
Install equipment for a videotape "virtual tour"	page 73	MIMI CRS; Supt.
Produce videotapes to be part of new VC exhibits	page 73	MIMI CRS; Supt.
Wayside Exhibits for the Future Visitor Center and Off-site Locations		
Plan, design, produce MIMI Orientation and B. Case	page 74	MIMI Superintendent; HFC or?
Plan, design, produce wayside/s for the Sculpture area	page 74	MIMI Superintendent; HFC or?
Produce Delta-01 & Delta-09 panels in porcelain	page 74	MIMI Superintendent; HFC or?
Plan, design, produce "NPS sites in Region" waysides	page 75	MIMI Superintendent; HFC or?
Plan, design, produce "MIMI Promotion" waysides	page 75	MIMI Superintendent; HFC or?

* "Official" cost estimates for the media listed on these pages will be provided by Harpers Ferry Center in a separate document; Contact HFC at (304) 535-5050 to request these estimates.

Short-term tasks / Mid-term tasks / Long-term tasks

Fund Source/Estimate*	2005	2006	2007	2008	2009	2010	2011	2012	2013
DSC GMP funds/$457,000		XXX							
				XXX					
					XXX				
_____/$6,733,499						XXX			
							XXX		
								XXX	
_____/$ 43,260						XXX			
_____/$ TBD					XXX	XXX			
_____/$150,000				XXX	XXX				
_____/$800,000						XXX	XXX		
_____/$ TBD				XXX					
_____/$600,000						XXX	XXX		
_____/$ TBD						XXX			
_____/$50,000					XXX				
_____/$ 6,000				XXX	XXX				
_____/$ 5,000					XXX	XXX			
_____/$22,000					XXX				
_____/$30,000							XXX	XXX	
_____/$40,000								XXX	XXX

LONG-TERM RECOMMENDATIONS

Task(s)/Step(s)	(from page #)	Responsible Positions
In Cooperation with South Dakota Air and Space Museum		
Plan, design, produce MIMI-related exhibits	page 76	MIMI Superintendent; HFC or ?
Upgrade & edit audiotape for the LCC test console	page 76	MIMI Superintendent; HFC or ?
Plan, design, produce 2-3 prototype wayside exhibits	page 77	MIMI Superintendent; HFC or ?
Plan, design, produce 25 waysides for outdoor aircraft	page 77	MIMI Superintendent; HFC or ?
Publications		
Update the "free" Publications Plan for MIMI	page 78	MIMI Superintendent; staff
Develop a "for sale" Publications Plan for MIMI	page 78	MIMI Superintendent; staff
Website		
Hire a contractor to revise/update MIMI website	page 79	MIMI Supt.; CRS
Interpretive Programs		
In summer, offer 6 tours of 18 visitors on a daily basis	page 80	MIMI Supt.; CRS
In spring and fall, offer 4 tours of 18 visitors each day	page 80	MIMI Supt.; CRS
In winter, offer only 2 tours of 18 visitors each day	page 80	MIMI Supt.; CRS
Show "tours in progress" via monitors in the VC	page 80	MIMI Supt.; CRS
Offer ranger-led tours in the VC several times a day	page 80	MIMI Supt.; CRS
Education Programs		
Adapt Long Distance Learning technology at MIMI	page 81	MIMI Supt.; CRS
Prepare Educational Packets to be sent to teachers	page 81	MIMI Supt.; CRS
Use the NPS 'STEP' hiring authority for Educ interns	page 81	MIMI Supt.; CRS
Use visitor center for "Civic Engagement" programs	page 81	MIMI Supt.; CRS
Partnerships		
Expand the park's partnerships at MIMI	page 82	MIMI Superintendent, staff

* "Official" cost estimates for the media listed on these pages will be provided by Harpers Ferry Center in a separate document; Contact HFC at (304) 535-5050 to request these estimates.

Short-term tasks / Mid-term tasks / Long-term tasks

Fund Source/Estimate*	2005	2006	2007	2008	2009	2010	2011	2012	2013
_____/$55,000				XXX					
_____/$15,000				XXX					
_____/$10,000					XXX				
_____/$70,000						XXX			
N/A				XXX					
N/A					XXX				
_____/$ TBD				XXX (ongoing; as needed)					
_____/$ TBD					XXX				
_____/$ TBD					XXX				
_____/$ TBD					XXX				
_____/$ TBD							XXX		
_____/$ TBD								XXX	
_____/$ 8,000				XXX					
_____/$ TBD				XXX					
_____/$ TBD						XXX			
_____/$ TBD							XXX		
_____/$ TBD		XXX	XXX	XXX	XXX	XXX			

PLANNING TEAM

National Park Service

Minuteman Missile National Historic Site

Mark Herberger, Superintendent
Pam Griswold, Park Ranger (Protection)
John Black, Maintenance Mechanic
Marsha Buchanan, Park Guide
Chris Wilkinson, Park Ranger (Interpretation)

Harpers Ferry Center

Jack Spinnler, Interpretive Planner (Team Captain)
Michael Lacome, Exhibit Planner
Chuck Dunkerly, Audiovisual Production Specialist
Amy Maslak, Administrative Assistant
Dave Gilbert, Web Manager (consultant)
Lakita Edwards, Education Specialist (consultant)

Denver Service Center

James Crockett, Architect

Midwest Regional Office

Tom Richter, Chief of Interpretation and Education

Other National Park Service employees

Tom Haraden, Assistant Chief of Interpretation, Zion National Park
Tom Farrell, Chief of Interpretation, Wind Cave National Park

Park Partners

Ron Alley, Director, South Dakota Air and Space Museum
Tim Pavek, Engineer, U.S. Air Force, Ellsworth Air Force Base
Gene Williams, Rancher, South Dakota

APPENDICES

A: ENABLING LEGISLATION

Public Law 106-115
106th Congress
16 U.S.C. 461 note.

An Act

To establish the Minuteman Missile National Historic Site in the State of South Dakota, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE

This Act may be cited as the "Minuteman Missile National Historic Site Establishment Act of 1999."

SECTION 2. FINDINGS AND PURPOSES

(a) FINDINGS — Congress finds that —

(1) the Minuteman II intercontinental ballistic missile (referred to in this Act as "ICBM") launch control facility and launch facility known as "Delta-1" and "Delta-9" respectively, have national significance as the best preserved examples of the operational character of American history during the Cold War;

(2) the facilities are symbolic of the dedication and preparedness exhibited by the missileers of the Air Force stationed throughout the upper Great Plains in remote and forbidding locations during the Cold War;

(3) the facilities provide a unique opportunity to illustrate the history and significance of the Cold War, the arms race, and ICBM development; and

(4) the National Park System does not contain a unit that specifically commemorates or interprets the Cold War.

(b) PURPOSES — the purposes of this Act are —

(1) to preserve, protect, and interpret for the benefit and enjoyment of present and future generations the structures associated with the Minuteman II missile defense system;

(2) to interpret the historical role of the Minuteman II missile defense system —

(A) as a key component of America's strategic commitment to preserve world peace; and

(B) in the broader context of the Cold War; and

(3) to complement the interpretive programs relating to the Minuteman II missile defense system offered by the South Dakota Air and Space Museum at Ellsworth Air Force Base.

SECTION 3. MINUTEMAN MISSILE NATIONAL HISTORIC SITE

(a) ESTABLISHMENT

(1) IN GENERAL – The Minuteman Missile National Historic Site in the State of South Dakota (referred to in this Act as the "historic site") is established as a unit of the National Park System.

(2) COMPONENTS OF SITE - The historic site shall consist of the land and interests in land comprising the Minuteman II ICBM launch control facilities, as generally depicted on the map as "Minuteman Missile National Historic Site," numbering 406/80,008 and dated September, 1998, including --

(A) the area surrounding the Minuteman II ICBM launch control facility depicted as "Delta-1 Launch Control Facility;" and

(B) the area surrounding the Minuteman II ICBM launch control facility depicted as "Delta-9 Launch Facility."

(3) AVAILABILITY OF MAP - The map described in paragraph (2) shall be on file and available for public inspection in the appropriate offices of the National Park Service.

(4) ADJUSTMENTS TO BOUNDARY - The Secretary of the Interior (referred to in this Act at the "Secretary") is authorized to make minor adjustments to the boundary of the historic site.

(b) ADMINISTRATION OF HISTORIC SITE -- the Secretary shall administer the historic site in accordance with this Act and laws generally applicable to units of the National park System, including --

(1) the Act entitled "An Act to establish a National Park Service, and for other purposes," approved August 25, 1916 (16 U.S.C. 1 et seq.); and

(2) the Act entitled "An Act to provide for the preservation of historic American sites, buildings, objects, and antiquities of national significance, and for other purposes," approved August 21, 1935 (16 U.S.C. 461 et seq.)

(c) COORDINATION WITH HEADS OF OTHER AGENCIES -- The Secretary shall consult with the Secretary of Defense and the Secretary of State, as appropriate, to ensure that the administration of the historic site is in compliance with applicable treaties.

(d) COOPERATIVE AGREEMENTS -- The Secretary may enter into cooperative agreements with appropriate public and private entities and individuals to carry our this Act.

(e) LAND ACQUISITION --

(1) IN GENERAL -- Except as provided in paragraph (2), the Secretary may acquire land and interests inland within the boundaries of the historic site by --

(A) donation

(B) purchase with donated or appropriated funds; or

(C) exchange or transfer from another Federal agency.

2) PROHIBITED ACQUISITIONS-

(A) CONTAMINATED LAND- The Secretary shall not acquire any land under this Act if the Secretary determines that the land to be acquired, or any portion of the land, is contaminated with hazardous substances (as defined in section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601)), unless, with respect to the land, all remedial action necessary to protect human health and the environment has been taken under that Act.

(B) SOUTH DAKOTA LAND- The Secretary may acquire land or an interest in land owned by the State of South Dakota only by donation or exchange.

(f) GENERAL MANAGEMENT PLAN-

(1) IN GENERAL- Not later than 3 years after the date funds are made available to carry out this Act, the Secretary shall prepare a general management plan for the historic site.

(2) CONTENTS OF PLAN-

(A) NEW SITE LOCATION- The plan shall include an evaluation of appropriate locations for a visitor facility and administrative site within the areas depicted on the map described in subsection (a)(2) as--

(i) `Support Facility Study Area--Alternative A'; or

(ii) `Support Facility Study Area--Alternative B'.

(B) NEW SITE BOUNDARY MODIFICATION- On a determination by the Secretary of the appropriate location for a visitor facility and administrative site, the boundary of the historic site shall be modified to include the selected site.

(3) COORDINATION WITH BADLANDS NATIONAL PARK- In developing the plan, the Secretary shall consider coordinating or consolidating appropriate administrative, management, and personnel functions of the historic site and the Badlands National Park.

SEC. 4. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL- There are authorized to be appropriated such sums as are necessary to carry out this Act.

(b) AIR FORCE FUNDS-

(1) TRANSFER- The Secretary of the Air Force shall transfer to the Secretary any funds specifically appropriated to the Air Force in fiscal year 1999 for the maintenance, protection, or preservation of the land or interests in land described in section 3.

(2) USE OF AIR FORCE FUNDS- Funds transferred under paragraph (1) shall be used by the Secretary for establishing, operating, and maintaining the historic site.

(c) LEGACY RESOURCE MANAGEMENT PROGRAM- Nothing in this Act affects the use of any funds available for the Legacy Resource Management Program being carried out by the Air Force that, before the date of enactment of this Act, were directed to be used for resource preservation and treaty compliance.

Statement for

Mr. Tim J. Pavek
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28 CES/CEVC
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Minuteman Missile National Historic Site Establishment Act of 1999 (S.382)

Before the

Subcommittee on National Parks and Public Lands

House Committee on Resources

September 14, 1999

STATEMENT OF TIM PAVEK, MINUTEMAN II DEACTIVATION PROGRAM MANAGER, ELLSWORTH AIR FORCE BASE, BEFORE THE HOUSE SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS OF THE COMMITTEE OF RESOURCES CONCERNING S. 382, the MINUTEMAN MISSILE NATIONAL HISTORIC SITE ESTABLISHMENT ACT OF 1999.

Mr. Chairman, thank you for inviting me to testify before the committee in support of establishing the Minuteman Missile National Historic Site near Ellsworth Air Force Base (AFB) in the State of South Dakota. I began working at Ellsworth AFB in 1984 as a missile engineer, in support of 150 Minuteman II missiles on nuclear alert in remotely located, hardened concrete silos, scattered across a 13,500 square mile deployment are in western South Dakota. In 1991, when the deactivation of Minuteman II was announced, my position began to change into that of Minuteman II Deactivation Program Manager, and I became responsible for the deactivation, environmental compliance, and dismantlement of the sites. For the last several years, I have been working in partnership with the National Park Service to preserve the D-01 and D-09 missile facilities as Cold War historic sites.

While growing up as a young boy in Rapid City, South Dakota, I vividly remember laying in bed on hot summer nights, with the windows wide open, waiting to go to sleep, only to have the silence broken by the distant rumble of B-52 bombers, beginning their take-off roll, one right after the other, at Ellsworth AFB, located 10 miles to the northeast. As the rumble increased in intensity and then gradually disappeared into the distance, I laid awake wondering whether or not the planes would ever return -- whether it was another practice mission, or whether it was the real thing and if, within minutes, we would see the fireballs of Soviet nuclear bombs detonating over western South Dakota.

Some of you may share my memories of running home from school when the warning sirens sounded, of a friend or neighbor installing a bomb shelter in their back yard, of the yellow and black public fallout shelter signs posted on schools, banks, churches, and office buildings, or of the olive drab cans of crackers and drinking water stacked up in the shelters. Who can forget the pictures of the missile laden Soviet ships steaming toward Cuba, or the television newsreels of U.S. jets scrambling from their bases, darkening the air with trails of black kerosene soot during the Cuban Missile Crisis of October 1962?

It was at this moment in 1962, the most dangerous in the Cold War, that the Minuteman Intercontinental Ballastic Missile was first deployed at Malmstrom AFB, Montana. Shortly thereafter, President Kennedy referred to it as his "ace in the hole," a motto the 10th Missile Squadron at Malmstrom AFB has kept to this day. In 1962, construction of the missile field at Ellsworth AFB was well underway. A year later, the 165 sites at Ellsworth were complete and the nation's second Minuteman wing was declared combat ready. By 1967, a total of 1000 Minuteman missiles had been deployed in hardened underground silos in the upper Midwest.

The Minuteman was one of the most significant strategic weapons in U.S. history. With a turn of a key, the missile could deliver its nuclear weapon to a Soviet target in 30 minutes or less. It was a weapon for which there was virtually no defense -- for a war no one could win. For nearly three decades Ellsworth's 44th Missile Wing stood on alert. Then in 1989, the Berlin Wall fell. In 1991 the Strategic Arms Reduction Treaty was signed and President Bush announced his "plan for peace" which, in part, called for "the withdrawal from alert, within 72 hours" of all 450 Minuteman II missiles. Deactivation began when the first of Ellsworth's 150 Minuteman II missiles was removed from its silo on December 3, 1991. On July 4, 1994, the 44th Missile Wing was inactivated, a victim of its own success. The war had been won.

Looking back, it appears as if historical events conspired to make the Ellsworth missile sites ideal examples for their potential role as national significant Cold War historic sites. Ellsworth was designated Wing II, the second of what would be six Minuteman Wings, and the sister wing to Wing I at Malmstrom AFB, MT. Even as those early Wing I and II Minuteman sites were being constructed, it was recognized that some of the Soviets nuclear force would survive a retaliatory US strike. Our strategic policy of massive retaliation was replaced by one of "flexible response" in which our missiles would be selectively launched, holding the remaining ICBMs in reserve. This significant policy change resulted in a redesign of Minuteman facilities so they could survive for weeks after an initial attack. The design changes were incorporated and improved upon as the last four wings were constructed. Over the years, as the Minuteman II and III were developed and deployed, the Ellsworth sites remained the least upgraded (modified) in the Minuteman system and, at the time of their deactivation, were the most representative of the original Minuteman installations. Now that the original 150 Minuteman sites at Malmstrom AFB have been converted to Minuteman III sites, the two Ellsworth sites are the only original configuration Minuteman II sites remaining.

Early in the deactivation process, the National Park Service and the Air Force recognized the importance of preserving a Minuteman II Launch facility and Lunch Control Facility as nationally significant Cold War historic sites. for years, countless travellers had driven across Interstate 90 in western South Dakota, en route to Mt. Rushmore National Memorial, or Yellowstone National Park, not realizing they had passed within sight of nearly a dozen nuclear missile sites that had so impacted their way of life. Two of those sites, D-01 and D-09, were selected for preservation.

In 1993, the Air Force and the National Park Service entered into the first of three interagency agreements to spare the two sites from demolition until a study on the preservation and public visitation of the sites could be completed and final disposition of the sites could be determined. Special deactivation procedures were written for these two sites to de-militarize them while preserving their unique historical character. Environmental concern were addressed by removing items from the site, conducting soil and material sampling, remediating contaminated soil, and assessing current environmental conditions. All actions necessary to protect human health and the environment have now been completed to the satisfaction of state and federal regulators. Under these interagency agreements included an Historic American Engineering Record (HAER), preparation of a National Historic Landmark nomination package, and a Special Resource Study to determine if the sites were suitable and feasible for affiliation with the National Park Service. The studies concluded that the Ellsworth sites, located along a major interstate highway, within minutes of the Badlands National Park, would be suitable for inclusion in the National Park System.

Since 1993, the Department of Defense Legacy Program, which was established by Congress to conserve irreplaceable natural and cultural resources consistent with the requirements of military missions, has provided $378K to directly support the preservation of these two sites. Ellsworth AFB and Badlands National Park have worked together on an interim management plan to provide continuing day to day maintenance as well as long term preservation and protection of the sites. Plans and specifications were complete to provide the sites with new fire

detection, fire suppression, and security systems. Construction drawings were developed to concert the D-09 Launch Facility to a static display according to terms of the Strategic Arms Reduction Treat. Most recently, oral history interviews were conducted with former missileers who's combined careers spanned most of the Minuteman missile system's life. Ellsworth AFB expects to continue partnering with the National Park Service for the foreseeable future, in an advisory role, as it develops and implements general management and interpretive plans for the sites, ensuring compliance with treaty protocol, as well as providing technical support and a historical resource for their efforts.

Larger national issues also urge establishment of this National Historic Site. The Strategic Arms Reduction Treat (START) requires that the designated missile silos be eliminated by demolition or conversion to a static display (historic site) by December 2001. Two hundred ninety-nine launch facilities at Whiteman AFB, MO and Ellsworth AFB, SD have been destroyed by explosive demolition. Demolition of 150 sites at Grand Forks AFB, ND will occur over the next two years. If D-09 Launch Facility is not converted to a historic site, it will be added to the demolition schedule. Furthermore, D-09 is now the only site preventing the Air Force from retiring the Minuteman II missile system. This effectively limits future programs by preventing the Ballistic Missile Defense Organization Office from using vital encryption technology in flight tests using Minuteman II ICBMs for National Missile Defense research and development.

The Air Force and National Park Service have been working closely together for 6 years to reach this point. This is an unprecedented window of opportunity to preserve for the American public the ability to view and contemplate this significant period of U.S. history -- the secret underground world of the nuclear missile, silently poised beneath the peaceful prairies of the Great Plains. But it is a story bigger than that of missile silos. It is the story of the Cold War and how it affected our lives. It is the story of the Air Force's role in the defense of our nation. It is the story of the people of South Dakota and other states who lived alongside military installations. It is the story of a local rancher who tells of working through the bitter winter, helping mine the 80' deep holes that would become the missile silos; of a missile maintenance team battling a fierce winter blizzard to bring a missile back on alert; of a rancher who helped out an Air Force alert crew stranded on the gravel back roads of the missile field; or of the elderly lady who owned the land surrounding a missile site and told us we wouldn't have to blow up her missile site, she wouldn't tell anyone, since we might need it again some day. It is a story that needs to be told.

The people of Ellsworth AFB, western South Dakota, and America can be proud and grateful of the role our strategic bombers and intercontinental ballistic missiles have played during the Cold War. These two missile sites, representing hundreds if missile sites dispersed across the rural heartland of America, should be preserved for all America as a reminder of this significant period of our history.

The Air Force strongly supports the establishment of the Minuteman Missile National Historic Site. Thank you for this opportunity and for your thoughtful consideration of this legislation. This concludes my testimony. I would be please to answer any questions that you have.

B. ACCESSIBILITY GUIDELINES

Special Populations: Programmatic Accessibility Guidelines for Interpretive Media

Harpers Ferry Center National Park Service

Statement of Purpose

This document is a guide for promoting full access to interpretive media to ensure that people with physical and mental disabilities have access to the same information necessary for safe and meaningful visits to National Parks. Just as the needs and abilities of individuals cannot be reduced to simple statements, it is impossible to construct guidelines for interpretive media that can apply to every situation in every National Park Service (NPS) area.

These guidelines do, however, define a high level of programmatic access which can be met in most NPS situations. They articulate key areas of concern and note generally accepted solutions. Because of the diversity of park resources and the variety of interpretive situations, flexibility and versatility are important.

Each interpretive medium contributes to the total park program. All media have inherent strengths and weaknesses, and it is our intent to capitalize on their strengths and provide alternatives where they are deficient. It should also be understood that any interpretive medium is just one component of the overall park experience. In some instances, especially with regard to learning disabilities, personal services may be the most appropriate and versatile interpretive approach.

In the final analysis, interpretive design is subjective, and dependent on aesthetic considerations as well as the particular characteristics and resources available for a specific program. Success or failure should be evaluated by examining all interpretive offerings of a park. Because of the unique characteristics of each situation, parks should be evaluated on a case by case basis. The goal is to fully comply with NPS policy:

"*...To provide the highest level of accessibility possible and feasible for persons with visual, hearing, mobility, and mental impairments, consistent with the obligation to conserve park resources and preserve the quality of the park experience for everyone.*"

NPS Special Directive 83-3, Accessibility for Disabled Persons

Audiovisual Programs

Audiovisual programs include video, audio, and interactive programs. As a matter of policy, all audiovisual programs produced by the Harpers Ferry Center will include some method of captioning. The approach used will vary according to the conditions of the installation area and the media format used, and will be selected in consultation with park and regional office staffs.

The captioning method will be identified as early as possible in the planning process and will be presented in an integrated setting where possible. To the extent possible, visitors will be offered a choice in viewing captioned or uncaptioned versions, but in situations where a choice is not possible or feasible, a captioned version of all programs will be made available. Park management will decide on the most appropriate operational approach for each particular site.

Guidelines Affecting Visitors with Mobility Impairments

1. Theater, auditorium, or viewing area should be free of architectural barriers, or alternative accommodations will be provided. UFAS 4.1.

2. Wheelchair locations will be provided according to ratios outlined in UFAS 4.1.2(18a).

3. Viewing heights and angles will be favorable for those in designated wheelchair locations.

4. In designing video or interactive components, control mechanisms will be placed in accessible location, usually between 9" and 48" from the ground and no more than 24" deep.

Guidelines Affecting Visitors with Visual Impairments

1. Simultaneous audio description will be considered for installations where the equipment can be properly installed and maintained.

Guidelines Affecting Visitors with Hearing Impairments

1. All audiovisual programs will be produced with appropriate captions.

2. Copies of scripts will be provided to the parks as standard procedure.

3. Audio amplification and listening systems will be provided in accordance with UFAS 4.1.2(18b).

Guidelines Affecting Visitors with Learning Impairments

1. Unnecessarily complex and confusing concepts will be avoided.

2. Graphic elements will be chosen to communicate without reliance on the verbal component.

3. Narration will be concise and free of unnecessary jargon and technical information.

Exhibits

Numerous factors affect the design of exhibits, reflecting the unique circumstances of the specific space and the nature of the materials to be interpreted. It is clear that thoughtful, sensitive design can go a long way in producing exhibits that can be enjoyed by a broad range of people. Yet, because of the diversity of situations encountered, it is impossible to articulate guidelines that can be applied universally.

In some situations, the exhibit designer has little or no control over the space. Often exhibits are placed in areas ill suited for that purpose, they may include large artifacts, they may incorporate sensitive artifacts which require special environmental controls, or they may be within certain room decor or architectural features that dictate certain solutions. All in all, exhibit design is an art which defies simple description. However, one central concern is to communicate the message to the largest audience possible. Every reasonable effort will be made to eliminate any factors limiting communication through physical modification or by providing an alternate means of communication.

Guidelines Affecting Visitors with Mobility Impairments

The Americans with Disabilities Act Accessibility Guidelines (ADAAG) is the standard followed by the National Park Service and is therefore the basis for the accessibility standards for exhibits, where applicable.

1. Height/position of labels: Body copy on vertical exhibit walls should be placed at between 36" and 60" from the floor.

2. Artifact Cases:

a. Maximum height of floor of artifact case display area shall be no higher than 30" from the floor of the room. This includes vitrines that are recessed into an exhibit wall.

b. Artifact labels should be placed so as to be visible to a person within a 43" to 51" eye level. This includes mounting labels within the case at an angle to maximize its visibility to all viewers.

3. Touchable Exhibits: Touchable exhibits positioned horizontally should be placed no higher than 30" from the floor. Also, if the exhibit is approachable only on one side, it should be no deeper than 31".

4. Railings/barriers: Railings around any horizontal model or exhibit element shall have a maximum height of 36" from the floor.

5. Information desks: Information desks and sales counters shall include a section made to accommodate both a visitor in a wheelchair and an employee in a wheelchair working on the other side. A section of the desk/counter shall have the following dimensions:

a. Height from the floor to the top: 28 to 34 inches. (ADAAG 4.32.4)

Exhibits (continued)

Guidelines Affecting Visitors with Mobility Impairments (cont.)

b. Minimum knee clearance space: 27" high, 30" wide, and 19" deep of clearance underneath is the minimum space required under ADAAG 4.32.3, but a space 30" high, 36" wide and 24" deep is recommended.

c. Width of top surface of section: at least 36 inches. Additional space must be provided for any equipment such as a cash register.

d. Area underneath desk: Since both sides of the desk may have to accommodate a wheelchair, this area should be open all the way through to the other side. In addition, there should be no sharp or abrasive surfaces underneath the desk. The floor space behind the counter shall be free of obstructions.

6. Circulation Space:

a. Passageways through exhibits shall be at least 36" wide.

b. If an exhibit passageway reaches a dead-end, an area 60" by 78" should be provided at the end for turning around.

c. Objects projecting from walls with their leading edges between 27" and 80" above the floor shall protrude no more than 4" in passageways or aisles. Objects projecting from walls with their leading edges at or below 27" above the floor can protrude any amount.

d. Freestanding objects mounted on posts or pylons may overhang a maximum of 12" from 27" to 80" above the floor. (ADAAG 4.4.1)

e. Protruding objects shall not reduce the clear width of an accessible route to less than the minimum required amount. (ADAAG 4.4.1)

f. Passageways or other circulation spaces shall have a minimum clear head room of 80". For example, signage hanging from the ceiling must have at least 80" from the floor to the sign's bottom edge. (ADAAG 4.4.2)

7. Floors:

a. Floors and ramps shall be stable, level, firm and slip-resistant.

b. Changes in level between 1/4" and 1/2" shall be beveled with a slope no greater than 1:2. Changes in level greater than 1/2" shall be accomplished by means of a ramp that complies with ADAAG 4.7 or 4.8. (ADAAG 4.5.2)

c. Carpet in exhibit areas shall comply with ADAAG 4.5.3 for pile height, texture, pad thickness, and trim.

8. Seating - Interactive Stations/Work Areas: The minimum knee space underneath a work desk is 27" high, 30" wide and 19" deep, with a clear floor space of at least 30" by 30" in front. The desk top or work surface shall be between 28" and 34" from the floor. (ADAAG 4.32 Fig.45)

Exhibits (continued)

Guidelines Affecting Visitors with Visual Impairments

1. Tactile models and other touchable exhibit items should be used whenever possible. Examples of touchable exhibit elements include relief maps, scale models, raised images of simple graphics, reproduction objects, and replaceable objects (such as natural history or geological specimens, cultural history items, etc.).

2. Typography - Readability of exhibit labels by visitors with various degrees of visual impairment shall be maximized by using the following guidelines:

a. Type size - No type in the exhibit shall be smaller than 24 point.

b. Typeface - The most readable typefaces should be used whenever possible, particularly for body copy. They are: Times Roman, Palatino, Century, Helvetica and Universe.

c. Styles, Spacing - Text set in both caps and lower case is easier to read than all caps. Choose letter spacing and word spacing for maximum readability. Avoid too much italic type.

d. Line Length - Limit the line length for body copy to no more than 45 to 50 characters per line.

e. Amount of Text - Each unit of body copy should have a maximum of 45-60 words.

f. Margins - Flush left, ragged right margins are easiest to read.

3. Color:

a. Type/Background Contrast - Percentage of contrast between the type and the background should be a minimum of 70% .

b. Red/Green - Do not use red on green or green on red as the type/background color combination.

c. Do not place text on top of graphic images that impair readability.

4. Samples: During the design process, it is recommended that samples be made for review of all size, typeface and color combinations for labels in that exhibit.

5. Exhibit Lighting:

a. All labels shall receive sufficient, even light for good readability. Exhibit text in areas where light levels have been reduced for conservation purposes should have a minimum of 10 foot candles of illumination.

b. Harsh reflections and glare should be avoided.

c. The lighting system shall be flexible enough to allow adjustments.

Exhibits (continued)

Guidelines Affecting Visitors with Visual Impairments (continued)

d. Transitions between the floor and walls, columns, or other structures should be made clearly visible. Finishes for vertical surfaces should contrast clearly with the floor finish. Floor circulation routes should have a minimum of 10 foot candles of illumination.

6. Signage: When permanent building signage is required as a part of an exhibit project, the ADAAG guidelines shall be consulted. Signs, which designate permanent rooms and spaces, shall comply with ADAAG 4.30.1, 4.30.4, 4.30.5, and 4.30.6. Other signs, which provide direction to or information about functional spaces of the building, shall comply with ADAAG 4.30.1, 4.30.2, 4.30.3, and 4.30.5. Note: When the International Symbol of Accessibility (wheelchair symbol) is used, the word "Handicapped" shall not be used beneath the symbol. Instead, use the word "Accessible".

Guidelines Affecting Visitors with Hearing Impairments

1. Information presented via audio formats will be duplicated in a visual medium, such as in the exhibit label copy or by captioning. All video programs incorporated into the exhibit, which contain audio, shall be open captioned.

2. Amplification systems and volume controls should be incorporated with audio equipment used individually by the visitor, such as handsets.

3. Information desks shall allow for Telecommunication Devices for the Deaf (TDD) equipment.

Guidelines Affecting Visitors with Learning Impairments

1. The exhibits will present the main interpretive themes on a variety of levels of complexity, so people with varying abilities and interests can understand them.

2. The exhibits should avoid unnecessarily complex and confusing topics, technical terms, and unfamiliar expressions. Pronunciation aids should be provided where appropriate.

3. Graphic elements shall be used to communicate non-verbally.

4. The exhibits shall be a multi-sensory experience. Techniques to maximize the number of senses used in the exhibits should be encouraged.

5. Exhibit design shall use color and other creative approaches to facilitate comprehension of maps by visitors with directional impairments.

Historic Furnishings

Historically refurnished rooms offer the public a unique interpretive experience by placing visitors within historic spaces. Surrounded by historic artifacts visitors can feel the spaces "come alive" and relate more directly to the historic events or personalities commemorated by the park.

Accessibility is problematical in many NPS furnished sites because of the very nature of historic architecture. Buildings were erected with a functional point of view that is many times at odds with our modern views of accessibility.

The approach used to convey the experience of historically furnished spaces will vary from site to site. The goals, however, will remain the same: to give the public as rich an interpretive experience as possible given the nature of the structure.

Guidelines Affecting Visitors with Mobility Impairments

1. The exhibit space should be free of architectural barriers or a method of alternate accommodation should be provided, such as slide programs, videotaped tours, visual aids, and dioramas.

2. All pathways, aisles, and clearances shall (when possible) meet standards set forth in UFAS 4.3 to provide adequate clearance for wheelchair routes.

3. Ramps shall be as gradual as possible and not exceed a 1" rise in 12" run, and conform to UFAS 4.8.

4. Railings and room barriers will be constructed in such a way as to provide unobstructed viewing by persons in wheelchairs.

5. In the planning and design process, furnishing inaccessible areas, such as upper floors of historic buildings, will be discouraged unless essential for interpretation.

6. Lighting will be designed to reduce glare or reflections when viewed from a wheelchair.

7. Alternative methods of interpretation, such as audiovisual programs, audio description, photo albums, and personal services will be used in areas which present difficulty for visitors with physical impairments.

Guidelines Affecting Visitors with Visual Impairments

1. Exhibit typefaces will be selected for readability and legibility, and conform to good industry practice.

2. Audio description will be used to describe furnished rooms, where appropriate.

Historic Furnishings (continued)

Guidelines Affecting Visitors with Visual Impairments

3. Windows will be treated with film to provide balanced light levels and minimize glare.

4. Where appropriate, visitor-controlled rheostat-type lighting will be provided to augment general room lighting.

5. Where appropriate and when proper clearance has been approved, surplus artifacts or reproductions will be utilized as "hands-on" tactile interpretive devices.

Guidelines Affecting Visitors with Hearing Impairments

1. Information about room interiors will be presented in a visual medium such as exhibit copy, text, pamphlets, etc.

2. Captions will be provided for all audiovisual programs relating to historic furnishings.

Guidelines Affecting the Visitors with Learning Impairments

1. Where appropriate, hands-on participatory elements geared to the level of visitor capabilities will be used.

2. Living history activities and demonstrations, which utilize the physical space as a method of providing multi-sensory experiences, will be encouraged.

Publications

A variety of publications are offered to visitors, ranging from park folders, which provide an overview and orientation to a park, to more comprehensive handbooks. Each park folder should give a brief description of services available to visitors with disabilities, list significant barriers, and note the existence of TDD phone numbers, if available.

In addition, informal site bulletins are often produced to provide more specialized information about a specific site or topic. It is recommended that each park produce an easily updatable "Accessibility Site Bulletin" which could include detailed information about the specific programs, services, and opportunities available for visitors with disabilities and to describe barriers which are present in the park. A template for this site bulletin will be on the HFC Department of Publications website for parks to create with ease, a consistent look throughout the NPS. These site bulletins should be in large type, 16 points minimum, and follow the large-print criteria on the next page.

Publications (continued)

Guidelines Affecting Visitors with Mobility Impairments

1. Park folders, site bulletins, and sales literature will be distributed from accessible locations and heights.

2. Park folders and Accessibility Site Bulletins should endeavor to carry information on the accessibility of buildings, trails, and programs by visitors with disabilities.

Guidelines Affecting Visitors with Visual Impairments

1. Publications for the general public:

a. Text

(1) Size: the largest type size appropriate for the format. (preferred main body of text should be 10 point)

(2) Leading should be at least 20% greater than the font size used.

(3) Proportional letterspacing

(4) Main body of text set in caps and lower case.

(5) Margins are flush left and ragged right

(6) Little or no hyphenation is used at ends of lines.

(7) Ink coverage is dense

(8) Underlining does not connect with the letters being underlined.

(9) Contrast of typeface and illustrations to background is high (70% contrast is recommended)

(10) Photographs have a wide range of gray scale variation.

(11) Line drawings or floor plans are clear and bold, with limited detail and minimum 8 point type.

(12) No extreme extended or compressed typefaces for main text.

(13) Reversal type should be minimum of 11 point medium or bold sans serif type.

b. The paper:

(1) Surface preferred is a matte finish; dull-coated stock is acceptable.

(2) Has sufficient weight to avoid "show-through" on pages printed on both sides.

2. Large-print version publications:

a. Text

(1) Size: minimum 16 point type.

(2) Leading is 16 on 20 point type.

Publications (continued)

Guidelines Affecting Visitors with Visual Impairments (continued)

2. Large-print version publications:

a. Text

(3) Proportional letterspacing

(4) Main body of text set in caps and lower case.

(5) Margins are flush left and ragged right.

(6) Little or no hyphenation is used at ends of lines.

(7) Ink coverage is dense.

(8) Underlining does not connect with the letters being underlined.

(9) Contrast of typeface and illustrations to background is high (70% contrast is recommended)

(10) Photographs have a wide range of gray scale variation.

(11) Line drawings or floor plans are clear and bold, with limited detail and minimum 14 point type.

(12) No extreme extended or compressed typefaces for main text.

(13) Sans-serif or simple-serif typeface

(14) No oblique or italic typefaces

(15) Maximum of 50 characters (average) per line.

(16) No type is printed over other designs.

(17) Document has a flexible binding, preferably one that allows the publication to lie flat.

(18) Gutter margins are a minimum of 22mm; outside margin small er but not less than 13mm.

b. Paper:

(1) Surface is off-white or natural with matte finish.

(2) Has sufficient weight to avoid "show-through" on pages printed on both sides.

3. Maps:

a. The less cluttered the map, the more the visitors that can use it.

b. The ultimate is one map that is large-print and tactile.

c. Raised line/tactile maps are something that could be developed in future, using our present digital files and a thermaform machine. Lines are distinguished by lineweight, color and height. Areas are distinguished by color, height, and texture.

Publications (continued)

Guidelines Affecting Visitors with Visual Impairments (continued)

3. Maps (continued)

d. The digital maps are on an accessible web site.

e. Same paper guides as above.

f. Contrast of typeface background is high. (at least 70% contrast is recommended)

g. Proportional letterspacing

h. Labels set in caps and lower case

i. Map notes are flush left and ragged right.

j. Little or no hyphenation is used at ends of lines.

k. No extreme extended or compressed typefaces used for main text.

l. Sans-serif or simple-serif typeface.

4. The text contained in the park folder should also be available on audiocassette, CD, and accessible web site. Handbooks, accessibility guides, and other publications should be recorded where possible.

5. The official park publication is available in a word processing format. This could be translated into Braille as needed.

Guidelines Affecting Visitors with Hearing Impairments

Park site bulletins will note the availability of such special services as sign language interpretation and captioned programs.

Guidelines Affecting Visitors with Learning Impairments

1. The park site bulletin should list any special services available to these visitors.

2. Publications:

a. Use language that appropriately describes persons with disabilities.

b. Topics will be specific and of general interest. Unnecessary complexity will be avoided.

c. Whenever possible, easy to understand graphics will be used to convey ideas, rather than text alone.

d. Unfamiliar expressions, technical terms, and jargon will be avoided. Pronunciation aids and definitions will be provided where needed.

e. Text will be concise and free of long paragraphs and wordy language.

Wayside Exhibits

Wayside exhibits, which include outdoor interpretive exhibits and signs, orientation shelter exhibits, trailhead exhibits, and bulletin boards, offer special advantages to visitors with disabilities. The liberal use of photographs, artwork, diagrams, and maps, combined with highly readable type, make wayside exhibits an excellent medium for visitors with hearing and learning impairments. For visitors with sight impairments, waysides offer large type and high legibility.

Although a limited number of NPS wayside exhibits will be inaccessible to visitors with mobility impairments, the great majority are placed at accessible pullouts, viewpoints, parking areas, and trailheads.

The NPS accessibility guidelines for wayside exhibits help insure a standard of quality that will be appreciated by all visitors. Nearly everyone benefits from high quality graphics, readable type, comfortable base designs, accessible locations, hard-surfaced exhibit pads, and well-landscaped exhibit sites.

While waysides are valuable on-site "interpreters," it should be remembered that the park resources themselves are the primary things visitors come to experience. Good waysides focus attention on the features they interpret, and not on themselves. A wayside exhibit is only one of the many interpretive tools which visitors can use to enhance their appreciation of a park.

Guidelines Affecting Visitors with Mobility Impairments

1. Wayside exhibits will be installed at accessible locations whenever possible.

2. Wayside exhibits will be installed at heights and angles favorable for viewing by most visitors including those in wheelchairs. For standard NPS low-profile units the recommended height is 30 inches from the bottom edge of the exhibit panel to the finished grade; for vertical exhibits the height of 6-28 inches.

3. Trailhead exhibits will include information on trail conditions which affect accessibility.

4. Wayside exhibit sites will have level, hard surfaced exhibit pads.

5. Exhibit sites will offer clear, unrestricted views of park features described in exhibits.

Guidelines Affecting Visitors with Visual Impairments

1. Exhibit type will be as legible and readable as possible.

2. Panel colors will be selected to reduce eyestrain and glare, and to provide excellent readability under field conditions. White should not be used as a background color.

Wayside Exhibits (continued)

Guidelines Affecting Visitors with Visual Impairments (continued)

3. Selected wayside exhibits may incorporate audio stations or tactile elements such as models, texture blocks, and relief maps.

4. For all major features interpreted by wayside exhibits, the park should offer non-visual interpretation covering the same subject matter. Examples include cassette tape tours, radio messages, and ranger talks.

5. Appropriate tactile cues should be provided to help visually impaired visitors locate exhibits.

Guidelines Affecting Visitors with Hearing Impairments

1. Wayside exhibits will communicate visually, and will rely heavily on graphics to interpret park resources.

2. Essential information included in audio station messages will be duplicated in written form, either as part of the exhibit text or with printed material.

Guidelines Affecting Visitors with Learning Impairments

1. Topics for wayside exhibits will be specific and of general interest. Unnecessary complexity will be avoided.

2. Whenever possible, easy-to-understand graphics will be used to convey ideas, rather than text alone.

3. Unfamiliar expressions, technical terms, and jargon will be avoided. Pronunciation aids and definitions will be provided where needed.

4. Text will be concise and free of long paragraphs and wordy language.

As the nation's principal conservation agency, the Department of the Interior has the responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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