



National Park Service
U.S. Department of the Interior

Minuteman Missile National Historic Site

Delta 09 Launch Facility

Cell Phone Tour Script

Updated May 2015

General Greeting

Welcome to Minuteman Missile National Historic Site and Launch Facility Delta-09. Inside the fenced area is a Minuteman missile silo. For nearly thirty years Delta-09 held an operational Minuteman II nuclear missile. We hope you enjoy your cell guided tour of Delta-09. After the tour, if you would like to give us feedback, please press star and zero.

Once again, welcome to Minuteman Missile National Historic Site, we hope you enjoy your tour.

Stop One: Minuteman Missiles: Hidden in Plain Sight

Before you enter the fenced area at Delta-09, please turn your attention to the Interstate you just drove in on.

Imagine for nearly thirty years, South Dakotans, tourists, and truckers—people just like yourselves drove up and down Interstate 90, most of them never realizing they were driving through a war zone. But with the invention of intercontinental ballistic missiles, the frontlines of the Cold War were everywhere—no one was safe.

Imagine though, if you were one of those innocent passersby and had glanced at the strange series of structures contained within the fence. What would you have thought the structures were? Could they be a water well or perhaps a substation for the local power supply? That's what you might think or notice at a glance, but to the imagination this site could mean the end of the world.

Now step inside at Launch Facility Delta-09 and learn how one of the most powerful weapons in human history was kept just beneath this lonesome stretch of prairie.

Stop Two: Minuteman Missiles: Why South Dakota?

As you approach the silo at Delta-09, take a moment to look around you at the seemingly endless expanse of prairie. As far as the eye can see, there are grasslands stretching toward an endless horizon.

The land of western South Dakota is sparsely inhabited ranch country. This remoteness was one of the main reasons the Air Force decided to place Minuteman Missiles in the area. There are no large cities in this part of the United States. It was thought that this lack of population would limit casualties in the event of a nuclear war.

A second reason for placing the missiles in South Dakota was the relatively close proximity of the state to the Soviet Union. A Minuteman Missile launched from Delta-09 could soar straight over the North Pole and strike targets deep within central Russia. The Minuteman II had a maximum range of 6,300 miles, putting almost all possible Soviet targets within its range.

Stop Three: Minuteman Missile: From Launch to Ground Zero

After a Minuteman Missile is launched it can soon attain speeds of over 15,000 miles per hour. Consider, at such speed the Minuteman could cross the continental United States in ten minutes. This allows it to strike a target over 6,000 miles away in just 30 minutes. In other words the Minuteman can strike targets nearly anywhere on earth.

Within three minutes of a launch, all rocket stages would burn out and fall away. Then the warhead, which lies just beneath the tip of the missile's nosecone, rises over a hundred miles above the earth's surface. As it reenters the atmosphere, the forces of aerodynamic drag and gravity pull the warhead towards its final destination. Because of its state of the art guidance system the bomb would strike within a quarter mile of its target.

When the warhead reaches its destination, it detonates a 1.2 megaton hydrogen bomb. This bomb is 120 times more powerful than the atomic bomb dropped on Hiroshima, Japan at the end of World War II. Consider that only two other nations, the United States and the Soviet Union, held more military power than South Dakota and its 150 strong Minuteman force during the Cold War. The warhead would completely devastate a target area. For a mile and a half in all directions nothing would remain that was recognizable, even the most stoutly constructed buildings would be totally blown to pieces. Due to the effects of radiation, the target area would be uninhabitable for centuries to come.

Stop Four: Minuteman Missile: A Technological Wonder

As you look down through the glass viewing enclosure you see a Minuteman II training missile on display. The Minuteman is considered a technological wonder because it was the first solid-fuelled intercontinental ballistic missile the United States ever made operational.

With solid fuel technology, the missile was a cost effective option that could lie, dormant and unmanned for weeks, months, and years on end with limited maintenance and upkeep. Furthermore, it could be remotely controlled and monitored from underground launch centers miles away from the actual silos. Most importantly, it was the United States first hair trigger launch response as far as intercontinental ballistic missile systems go. From the time when the missileers completed a key turn procedure to execute a launch command, to the time when the missile left the silo could take approximately one minute for the missile to launch.

If the missile had ever been launched, here is what would have occurred. On the left side of the missile you will see an umbilical cord attached. This is where a positive launch command would be transmitted to the missile's computer via underground communications cables. After the missile's computer receives the command, the cord detaches. Next through the aid of explosive gas canister detonations, the 90-ton door which once covered the silo, would be thrown to the

south. A few seconds later the missile leaves the silo and heads to a target half a world away.

Stop Five: Hardened Ultra High Frequency Antenna

To your right lies an ultra high frequency antenna. As you can see it is surrounded by concrete. This is known as blast hardening so it can withstand the effects of an enemy nuclear warhead detonation. This antenna system provided a link between the missile and an Airborne Launch Command System, better known as the Looking Glass.

The Looking Glass was an airborne command center that flew for nearly 30 years during the Cold War over the Minuteman missile fields of the Great Plains. In the event that the Minuteman Launch Control Centers were destroyed by a Soviet nuclear attack, the Looking Glass could assume control of the missiles and launch them.

The Looking Glass was given this name because its mission mirrored ground-based command and control systems. Others have referred to it as the Doomsday plane since it would direct nuclear forces and ensure continuity of government in the event of a massive nuclear attack against the United States.

In July 1990 the Looking Glass stopped flying around the clock. Instead, it was placed on 24 hour ground alert. However, it did remain ready to take off at a moment's notice. This mission continues to the present day.

Stop Six: Soft Support Building

This reinforced concrete structure is known as the soft support building. The box-like roof in front of you stands about one foot above ground, below the surface though, it does down another 11 feet. Inside there is an array of electrical and environmental equipment which supports silo operations.

Foremost among these is a diesel fueled emergency power generator. The site was actually on commercial power, but in the event of outages this generator would immediately start up and keep the site powered. Without this auxiliary system, the site could have been disabled and the missile unable to launch. Keep in mind, that the mission of these silos was to allow for an immediate launch response in the event of a nuclear attack, thus it was very important to have a power supply that kept the site operational at all times.

This building also contains a chiller unit which provided the silo with temperature and humidity control. Keeping the interior environment of the silo stable was vital to having the system working at peak efficiency. The temperature within the silo was kept right around 60 degrees. If the interior got any warmer this could cause damage to the missile, especially the computerized components within it.

Stop Seven: The Personnel Access Hatch

Here you see the lid covering the personnel access hatch. Though the site was unmanned, maintenance teams might have to visit the site for periodic upkeep or to fix any problems that might arise with the missile or its support system.

The personnel access hatch is an extremely secure heavily reinforced steel and concrete door. By opening the blue lid which is directly adjacent to the hatch, security personnel would first enter a code into a combination lock. When this code was properly entered the large personnel access hatch would begin to rise. The hatch door takes several minutes to open, then a maintenance team would enter via a hatch and find another combination lock. When the proper combination was entered here, a steel security door known as the B-plug lowers to the level of the equipment room and access is gained.

The interior of the equipment room and the silo itself are considered no-lone zone areas, meaning that personnel must always remain within visual sight of a partner at all times. Any area of intense security in the missile field, where the command and control of nuclear weapons could be compromised, was considered a no-lone zone.

Maintenance shifts could last for up to sixteen hours at a time. Yet on many occasions, over half of a shift would be taken up in driving to and from the site as well as the slow, secure process of gaining access to the silo.

Stop Eight: The Improved Minuteman Physical Security System

The slender white pole you see standing just to the left of the silo was known as the Improved Minuteman Physical Security System. This was installed in 1989 to replace the existing security system which set off numerous false alarms. False alarms usually were triggered by deer, rabbits, and as some even claimed, grasshoppers.

Security systems at the site were used to detect motion and intrusions both within the fencing and along its outer perimeter. If motion was detected, the missileers remotely monitoring the silo from the launch control center several miles away would be the first to know. Security police would then be dispatched to the site. Security would be at the silo within 15 minutes. They would then check for intruders, make sure the site was totally secure, reset the alarm, and drive back to the launch control facility.

There were very few human intrusions through the years. Many of these were peace protestors exercising their first amendment rights. If a person did intrude on the site they would not actually hear any alarm, but within a few minutes they would be met by an M-16 armed security police crew who would immediately detain them. There were no recorded attempts of Soviet forces ever attempting to breach a silo and gain access to the missile or warhead.

Stop Nine: Putting in a Missile

The two pylons which are right before the silo were vital to the placement of a missile. A vehicle known as the Missile Transporter Erector would bring a missile out from the Air Force Base. This vehicle would be part of a convoy surrounded by both ground and air security.

Once at the site, the Missile Transporter Erector would align itself with the yellow lines painted on the pavement, then maneuver toward the silo. At this point a trailer on the vehicle which contained the missile would be set down onto the pylons. Then the trailer would be tilted upwards until it was completely vertical and covered the silo. The 90-ton door which covered the silo would also have to be pulled back. From this point a missile would then slowly be lowered into the silo.

Total time to place a missile in the silo would take between three to four hours. The missile would not yet have a nuclear warhead placed on it.

The warhead was a separate component from the missile itself. It would be transported to the site separately and also be escorted to the site by security forces. The warhead was placed just beneath the tip of the missile's nosecone. Whereas the missile itself weighed about 75,000 pounds, the warhead only weighed about 600 pounds. It was a 1.2 megaton hydrogen bomb that held the explosive equivalent of 60% of all the bomb power used during World War II.

Stop Ten: The Minuteman: Past, Present and Future

The missile field was operational, 24 hours a day, seven days a week, 365 days a year, for thirty years. In 1991, President George H. W. Bush and Soviet leader Mikhail Gorbachev signed the Strategic Arms Reduction Treaty, or START, which limited the number of ICBMs and nuclear warheads either country could possess. It also allowed for 1 site on each side to be preserved for historic purposes. Months later, the Soviet Union dissolved, and with it, the tension of the Cold War era. While both nations had spent an enormous amount of money on nuclear defenses that were never employed, they successfully averted a war of massive devastation on a global scale.

South Dakota's missiles became the first to be taken off alert. Silos were imploded and filled with rubble and soil and some landowners even had the opportunity to push the button to implode the silos themselves. Land was then sold back to previous owners.

Minuteman Missile National Historic Site represents an unprecedented window of opportunity for visitors 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 generations of Americans who grew up in fear of communism and the Soviet Union. It is the story of the men and women in the Air Force missile fields, and the story of the people of western South Dakota who lived alongside the Minuteman II. The story has not ended yet, as 450 Minuteman III missiles remain on alert across the Great Plains slated to be operational through the year 2050.

We hope you enjoyed your tour. You can continue your visit at the Minuteman Missile National Historic Site Visitor Center located 15 miles east of here at exit 131. There you can get more information on tours, watch a 9 minute orientation film, and explore exhibits and a bookstore. To provide feedback about this tour, please press star (*) zero (0).