

# JOINT LAND USE STUDY

## Information on Military Installations

### Missile Complex

The missile complex is the area that contains the 150 Minuteman III ICBM MMLFs and MAFs. This area falls within the boundaries of the following counties:

- Bottineau
- Mountrail
- Burke
- Renville
- McHenry
- Sheridan
- McLean
- Ward

The MLFs and MAFs within the Missile Complex are managed by the 91st Missile Wing (91 MW). The 91 MW, headquartered at Minot Air Force Base, is one of three U.S. Air Force Wings that maintains and operates the Minuteman III ICBM. The 91 MW is made up of three groups - the 91st Operations Group, 91st Maintenance Group, and the 91st Security Forces Group. Together, these groups manage 150 Minuteman III missiles which provide the critical component of America's on-alert strategic forces.

### Minot Air Force Base (MAFB)

MAFB is situated just north of Minot in Ward County in north central North Dakota. MAFB is also the home of the 5th Bomb Wing (5 BW). The 5 BW, host command at MAFB, operates and maintains two squadrons of B-52H Stratofortress bombers and is responsible for supporting the 91 MW, whose Airmen defend the United States with safe, secure, and effective intercontinental ballistic missiles (ICBMs). MAFB has the largest approach control designated airspace in the continental United States, presently consisting of nearly 5,000 square miles from the ground surface to over 20,000 feet. The availability of open airspace, coupled with the lack of off-base encroachment, presents unique opportunities to conduct aerial training not available at many other installations.

The Minot Air Force Base Joint Land Use Study (JLUS) is comprised of two study areas. One study area covers the entirety of the missile complex, which is an 8,500 square mile area crossing eight counties and containing 150 Minuteman III Intercontinental Ballistic Missile (ICBM) sites called Missile Launch Facilities (MLFs) and 15 Missile Alert Facilities (MAFs).

### Minuteman III Intercontinental Ballistic Missile (ICBM)

The Minuteman III is a strategic weapon system using a ballistic missile of intercontinental range. Missiles are dispersed in hardened silos to protect against attack and connected to an underground launch control center through a system of hardened cables. Launch crews, consisting of two officers, perform around-the-clock alert in the launch control center. A variety of communication systems provide the president and secretary of defense with highly reliable, virtually instantaneous direct contact with each launch crew. Should command capability be lost between the launch control center and remote missile launch facilities, specially configured E-6B airborne launch control center aircraft automatically assume command and control of the isolated missile or missiles. Fully qualified airborne missile combat crews aboard airborne launch control center aircraft would execute the president's orders.

### Missile Launch Facilities (MLFs)

An ICBM LF is an underground vertical cylindrical container for the storage and launching of ICBMs. They typically have the missile some distance under the surface, protected by a large "blast door" on top.

They are usually connected, either physically or electrically, to a launch control center. ICBM launch facilities are synonymous with the term missile silo, used in common nomenclature.

**Missile Alert Facilities (MAFs)**

MAFs are located at each operational missile wing for command, control, and monitoring of the Minuteman MLFs. The MAF consists of a buried and hardened Launch Control Center (LCC), an above-ground Launch Control Support Building (LCSB), and a buried and hardened Launch Control Equipment Building (LCEB) to house the cooling and generator systems. The MAF topside contains living quarters and support equipment for the facility manager (FM), chef, and security personnel.

**Launch Control Center (LCC)**

The LCC is an underground structure of reinforced concrete and steel of sufficient strength to withstand weapon effects. It contains equipment and personnel capable of controlling, monitoring, and launching missiles in the unmanned launch facilities within the squadron. The LCC outer structure is cylindrical with hemispherical ends. A blast door permits entry into the LCC from the tunnel junc-

tion. An escape hatch is located at the far end of the LCC. The escape hatch and associated tunnel are constructed to withstand weapon effects and allow personnel egress in the event of damage to the vertical access shaft. Essential LCC launch equipment along with the missile combat crew are located in a shock isolated room suspended within the blast-proof outer structure. The room is steel and suspended like a pendulum by four shock isolators.

**Hardened Intersite Cable Systems (HICS)**

The HICS is an extensive network of buried copper cables designed to survive a nuclear attack. The HICS is an underground communications link that connects the LCCs. HICS serves as the command and control communications network for the ICBMs.



Airmen from the 91st Missile Maintenance Squadron Hardened Intersite Cable System section loosen the bolts on a splice case outside of a missile alert facility in North Dakota, July 31, 2014.