



INFRASTRUCTURE

MINING & METALS

NUCLEAR, SECURITY & ENVIRONMENTAL

OIL, GAS & CHEMICALS

Sentinel: Ground-Based Strategic Deterrent (GBSD) Overview

Minuteman III test launch



General Note

This presentation contains unclassified material compiled from open-source, publicly-available information on the GBSD program and Minuteman III system. There is no controlled unclassified information or proprietary information presented or discussed.

The contract for work associated with production is not yet awarded. Information presented is based on current knowledge and is subject to change.



Sentinel Program Overview

- Sentinel is the replacement for the **Minuteman III** – land-based Intercontinental Ballistic Missile (ICBM) program which was first deployed in **1962** and is nearing **end-of-life**





Program Schedule

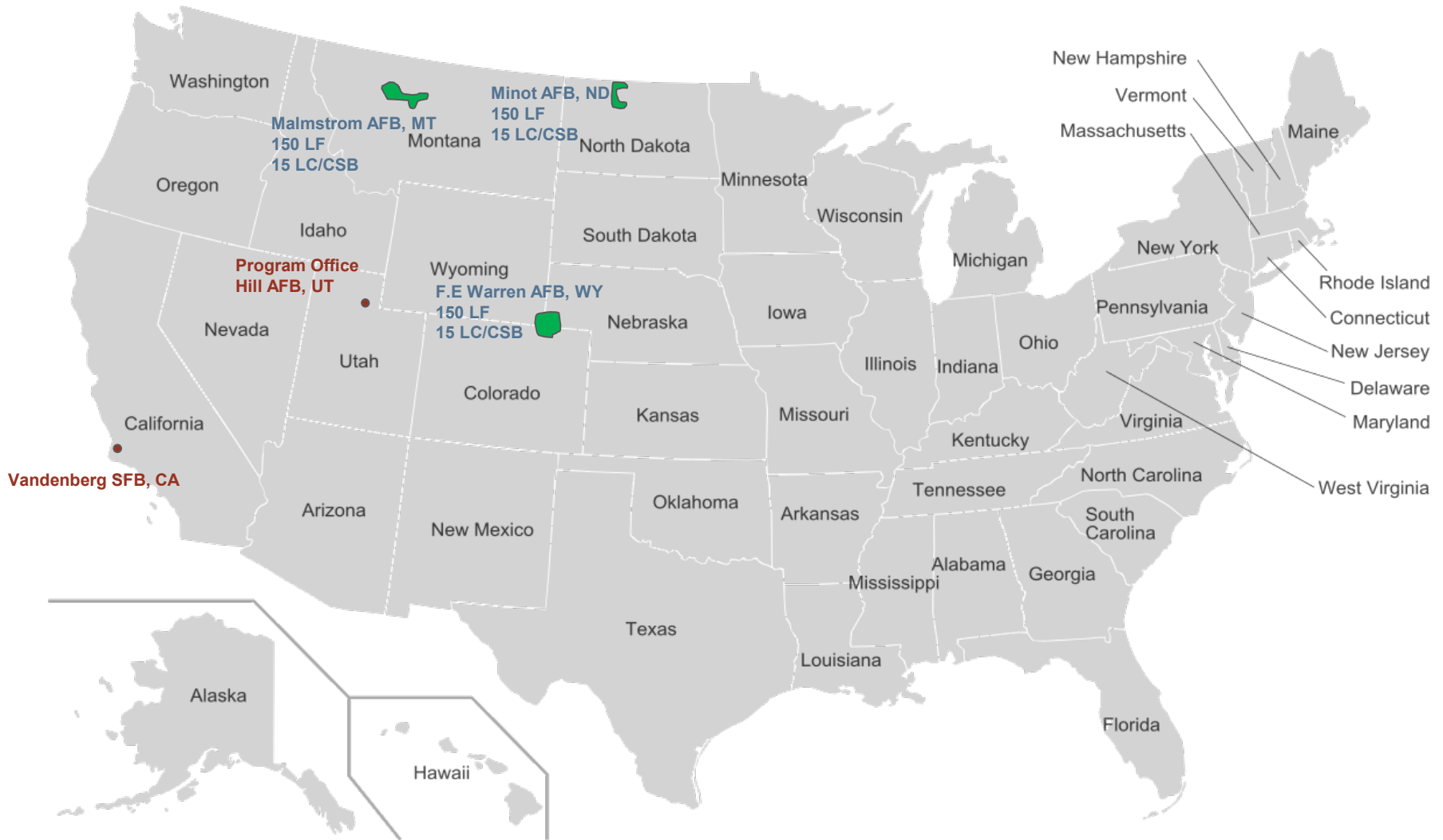
- Technology Maturation and Risk Reduction:
2017 – 2020 (complete)
 - Progress design to 65%

- Engineering and Manufacturing Development:
2020 – 2026 (under contract)
 - Complete design
 - Flight tests and system qualifications
 - Complete training and test facilities
 - Prepare for production

- Production: (not yet awarded)
 - FE Warren AFB, WY – 150 launch facilities and 15 launch centers
 - Malmstrom AFB, MT – 150 launch facilities and 15 launch centers
 - Minot AFB, ND – 150 launch facilities and 15 launch centers

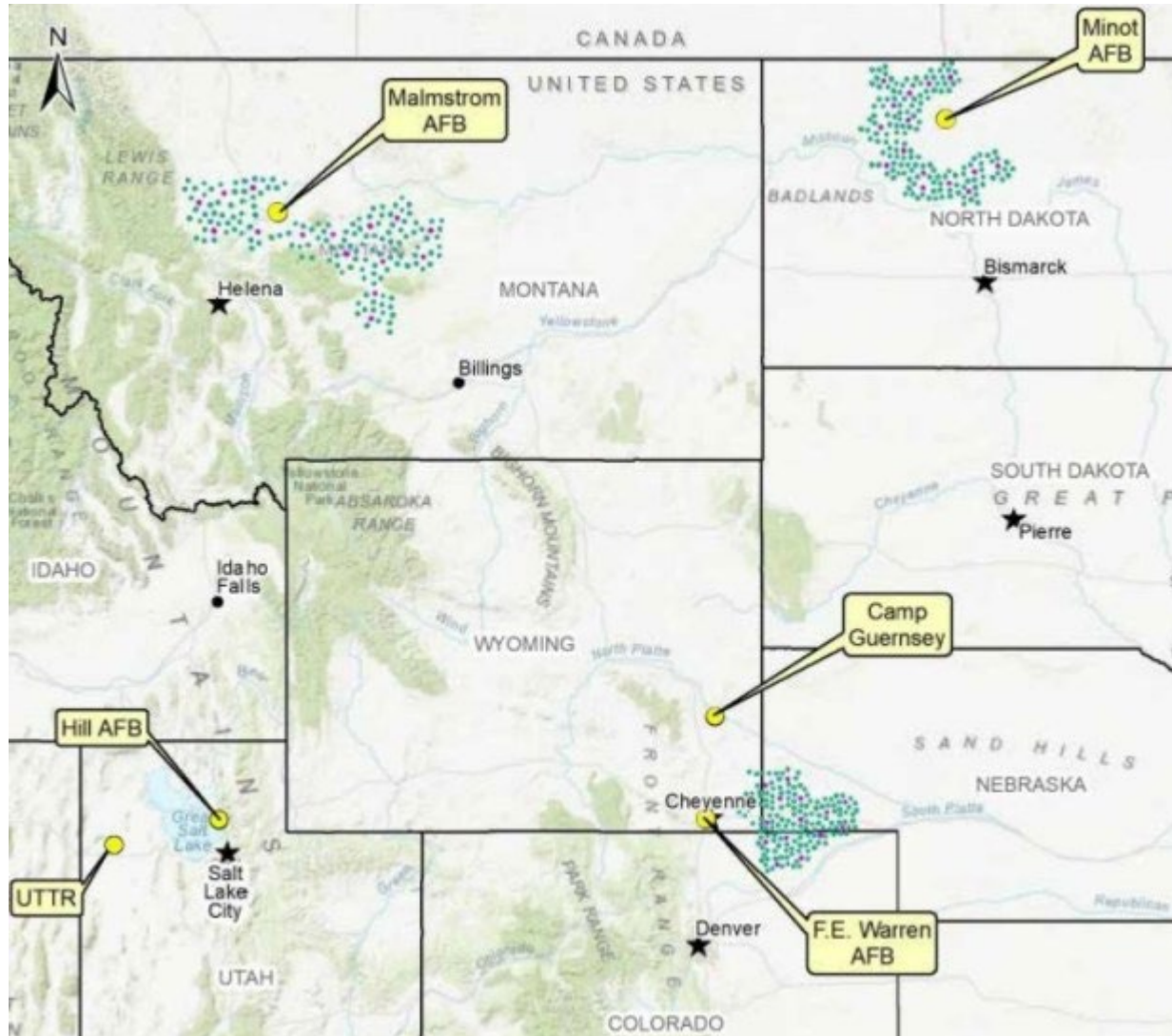


Project Map with Sites



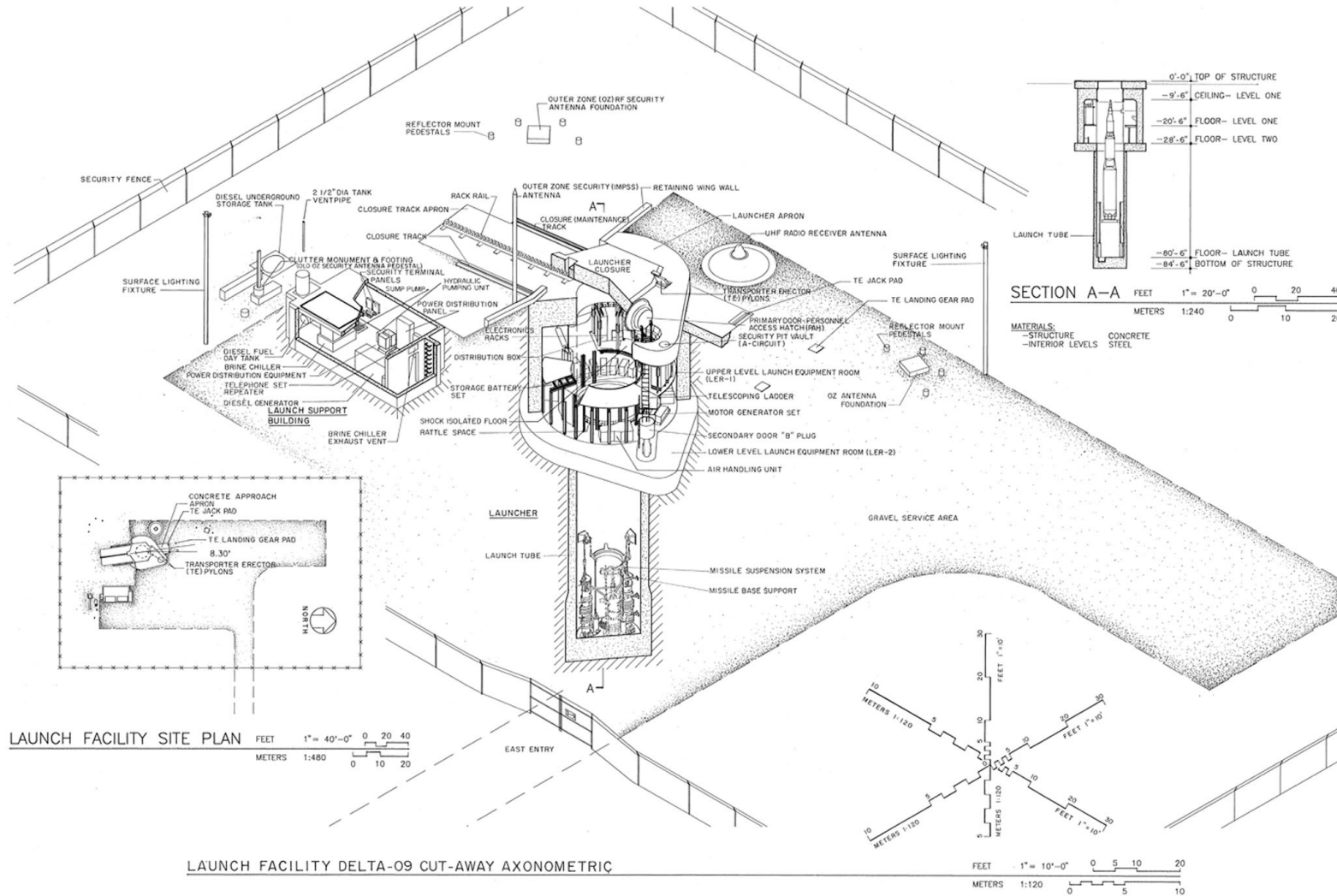


GBSD Program Locations (including future work)





MM III Launch Facility (450)





MM III Launch Facility



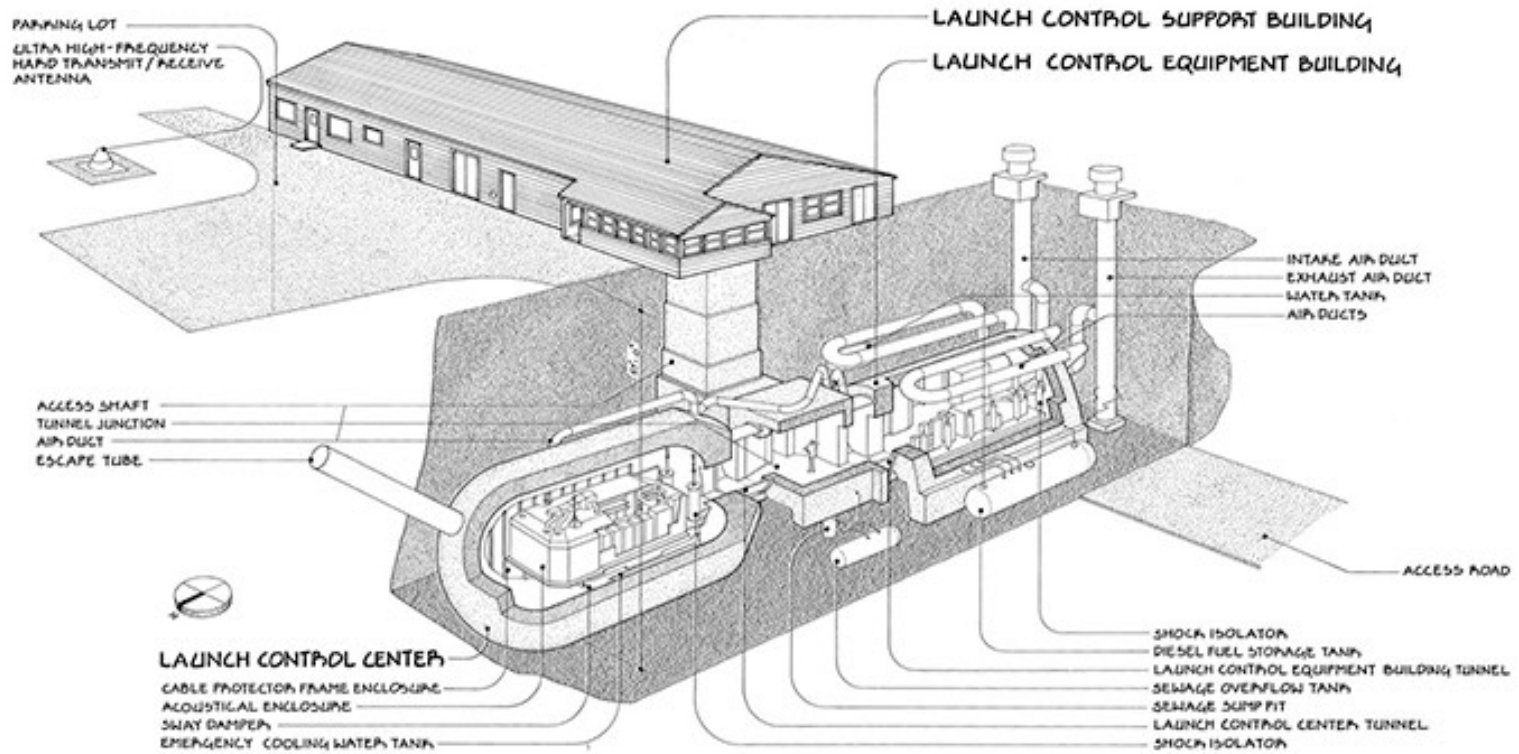


MM III Launch Facility Construction





MM III Launch Control Center (x45)



NOT TO SCALE

PERSPECTIVE

TAKEN FROM LAUNCH CONTROL FACILITY INSTALLATION DRAWINGS
BY BORG, SEATTLE, 1961; AND WAF ISOMETRIC BY U.S. AIR
FORCE, F.B. WARREN AIR FORCE BASE, 1961.

Courtesy MinutemanMissile.com



Launch Control Center Construction





Launch Control Center





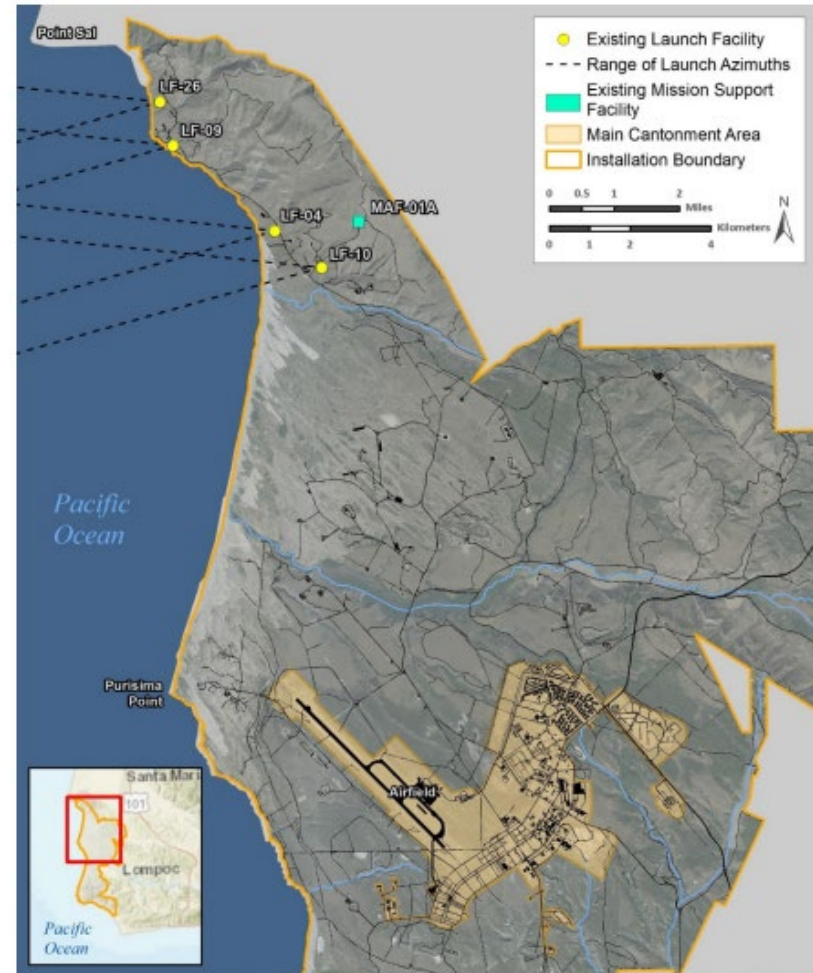
Not all sites are equal...





VSFB – GBSD test facilities

- Test Launch Sites: LF-04 and LF-26 – work underway
- Launch Control Facility: MAF-D0 / VLC
 - Demolition of existing topside facility
 - Construction of new 5,000 sq ft topside facility
 - Work to begin in 2023
 - Expect to advertise project in early fall 2022



Courtesy USAF Environmental Impact Statement



Interested in further information on GBSD opportunities?

- Register for Bechtel opportunities at bechtel.com/supplier



Q&A?