

Long-Term Stewardship Agreement for the Missouri Minuteman II Missile Sites



Missouri Department of Natural Resources
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History of Minuteman II Missile Silos

- June 1961 - Department of Defense(DOD) implements plan to place 150 Intercontinental Ballistic Missiles (ICBM) in Missouri.
- April 1962 - Construction of ICBM begins.
- October 1972 - All Minuteman II Missiles are in place and on full-alert status.
- September 27,1991 - President George Bush signs the Strategic Arms Reduction Treaty

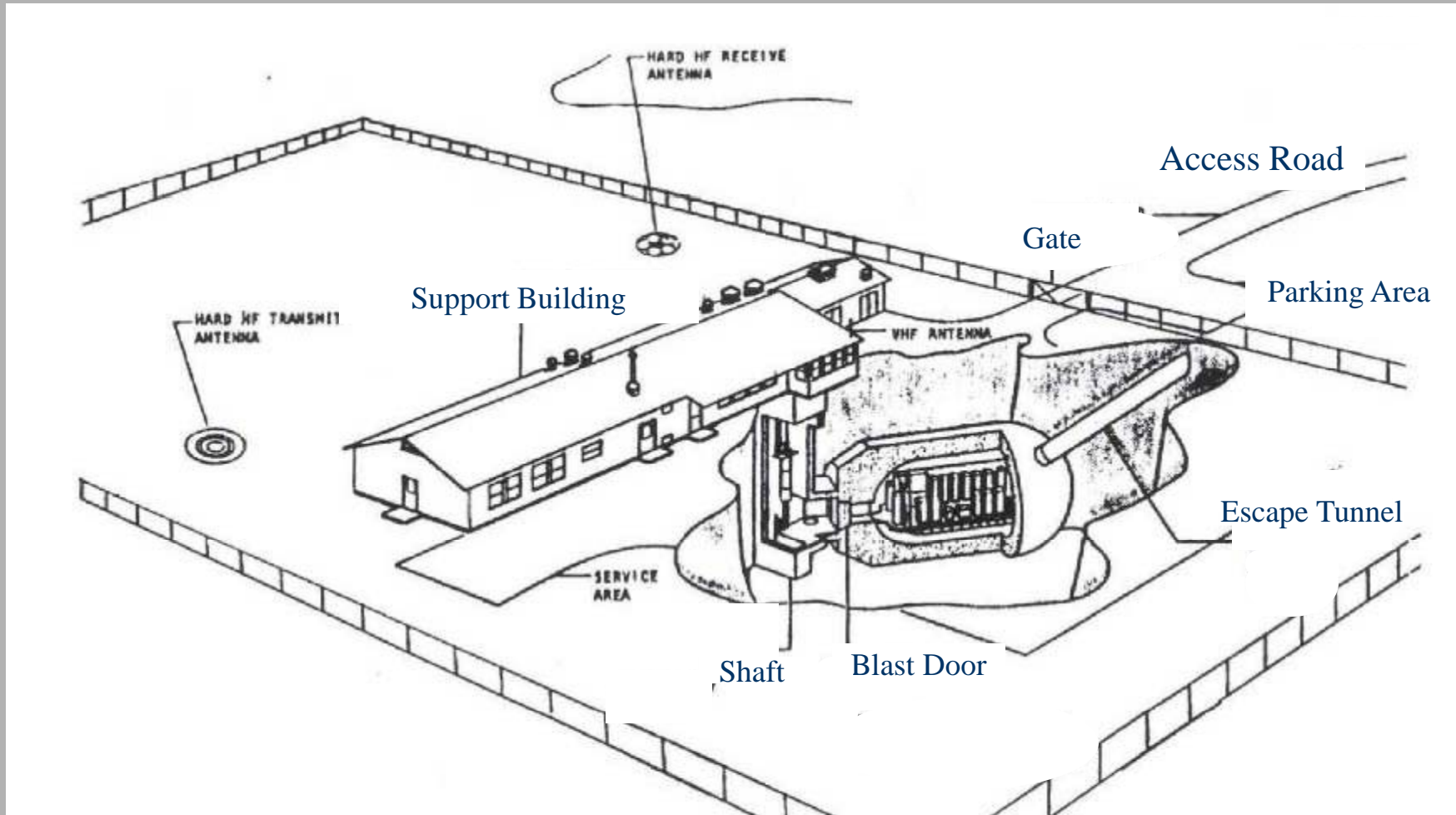


History (continued)

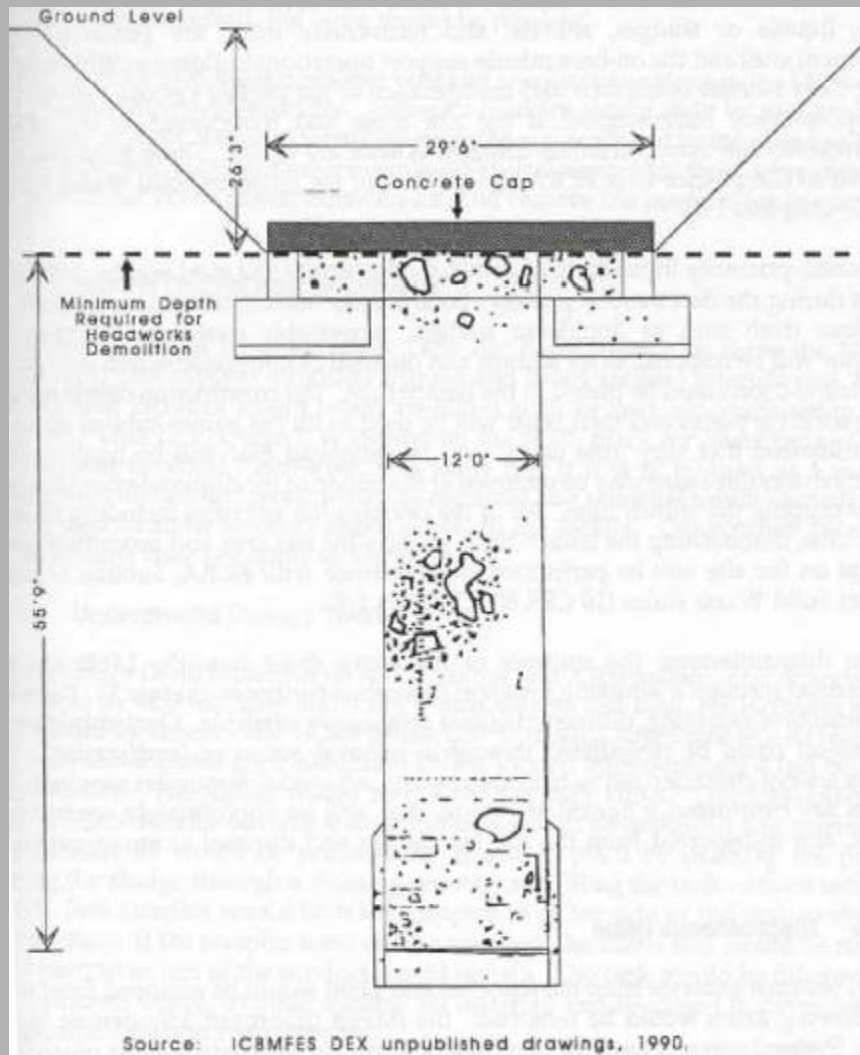
- 1991 to 1993 - Minuteman II missiles disarmed
- December 1993 to November 1995- silos imploded
- 1994 - Initial environmental investigation
- 1994 to 1997 - Federal Facilities Compliance Agreement initializes Institutional Controls
- 1997- 2002 - Long term monitoring at 23 representative sights
- 2003 – 2006 Properties sold and transferred
- June 2007 Long-Term Stewardship Agreement signed



Launch Control Facilities

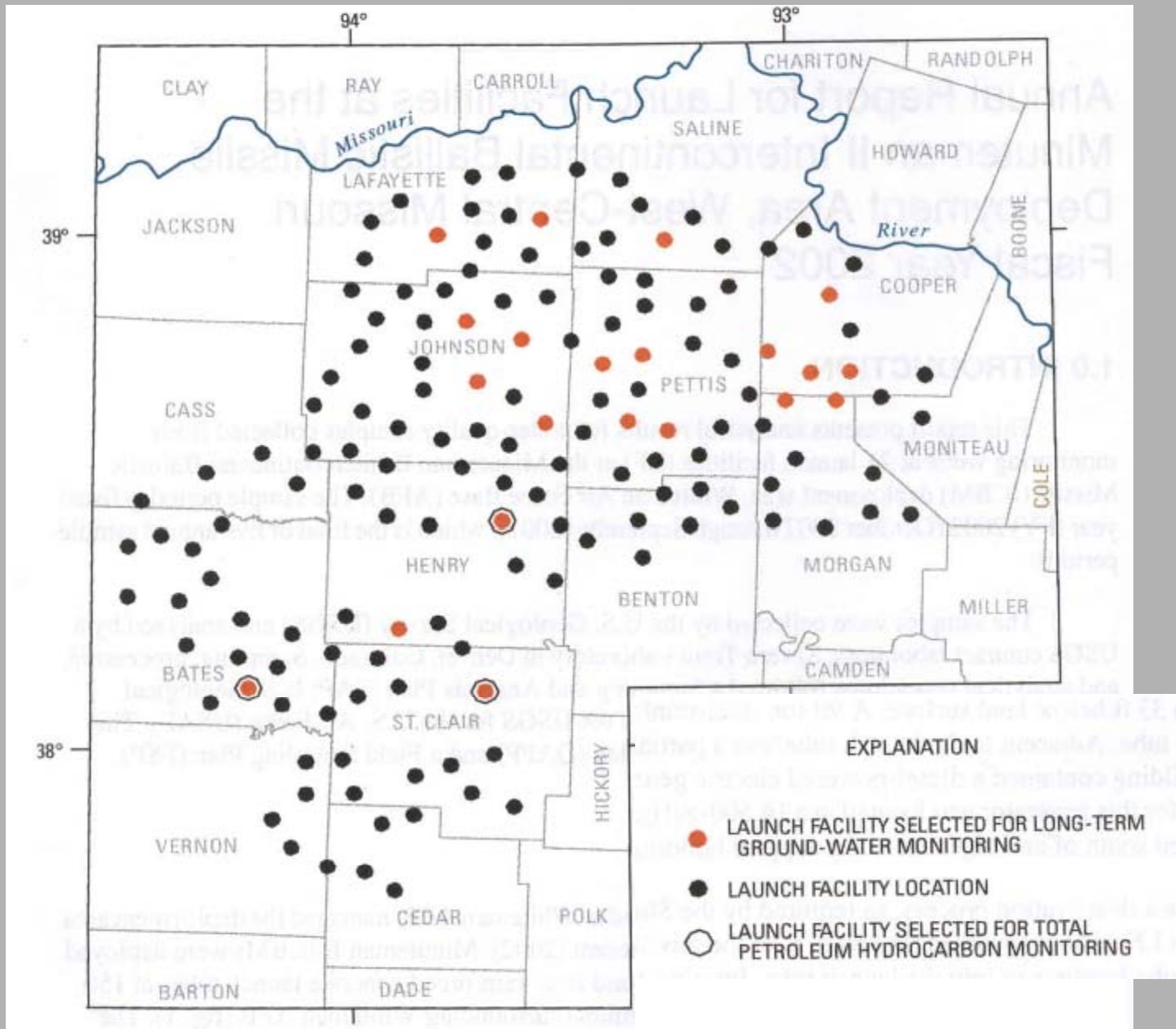


Launch Facilities



- Dismantlement
 - silos
 - explosively demolished
 - excavated to depths of 21 feet
 - remaining launch tubes
 - filled with rubble
 - covered with concrete caps 26-28 ft bgs
 - surface area
 - re-graded and covered with gravel

Locations of Minuteman II Missile Sites



Environmental Sampling

- Contaminants of concern included:
 - PCB's, TPH (DRO/GRO), BTEX
 - Perchlorate was added to the analyte list in 1991
 - 2001 perchlorate groundwater samples collected from deep monitoring wells at all twenty-one LF sites
- 642 total records were evaluated for the five-year life of the monitoring program
- PCBs not detected above RALs
- Perchlorates have not been detected at any of the sites
- TPH, GRO/DRO and BTEX were detected at all three sites where it was predicted they would be found.

Deed Restrictions

Prohibits on all sites

- installation of water wells
- physical penetration and ground disturbance below a depth of two feet beneath the surface

Additional restrictions placed on Launch Control Facilities

- Any ground disturbance at any depth beneath the surface above the below-ground pod
- Adjacent to the closed elevator shaft



Minuteman Site: 12

Date: 31 Oct 2007

Camera Facing: South

Description: Hay bale storage. No other disturbance apparent.



Minuteman Site: I-7

Date: 16 Oct 2007

Camera Facing: North

Description: Grain bin constructed on the east central portion of the site.



Minuteman Site: L-1

Date: 31 Oct 2007

Camera Facing: West

Description: LCF converted to a residence.

Transfer of Sites

Of the 165 Sites, 164 have been transferred to private ownership. One launch control facility is being preserved for historical purposes.

- General Services Administration (GSA) served as the transfer agency to Whiteman AFB
- Hardened Intersite Cable System (HICS) remained with the property owners upon transfer
- Measured 1,777 miles connecting the launch control centers

W&J Missile Cable Removal

"Why trust the man from out of town, when we'll pull your cash right out of the ground"



- Paying 65-75% of current market value depending on size of cable
- Land owner receives payment day of removal directly from American Compressed Steel
- Local company you can trust to leave your land in great condition
- Local references available, many satisfied customers

Tony White

573-377-4624 home

573-569-5537 cell

14607 Peachtree Road - Stover, MO

Brian James

573-480-1198 cell

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County Plainsman; Wednesday, Nov. 7, thru Tuesday, Nov. 13, 2007— Page 3

BUYING MISSILE CABLE!!

We pay 60% - 75% of the local market value, depending on the size of cable. Our prices are based on local market value, which is subject to change.

Cable Size:

Cable Size:	Amount Landowner Receives:
1 7/8 Size Cable	\$1.05 per ft. to the landowner
2" Size	\$1.25 per ft. to the landowner
2 1/4 Size	\$1.50 per ft. to the landowner
2 1/2 Size	\$1.76 per ft. to the landowner
2 3/4 Size	\$2.46 per ft. to the landowner
3" Size	\$3.30 per ft. to the landowner

1 7/8" Cable is the smallest we have found - 3" cable is the largest size we have found. If other sizes are found, the price will be prorated. Small holes are dug, as few as possible, and fields are left in excellent condition.

Call for references, we have many satisfied customers.

Let us pull your cable.

Keith Riggs

816-626-3227

Kevin Riggs

816-626-3331

Danny Gray

816-550-5722

Rex Riggs

816-668-7142

Challenges

- What is the enforcement mechanism?
- Who is responsible for the enforcement?
- How do we inspect and track the LTS effort?
- Who do property owners contact for construction questions or concerns relating to property?
- Missouri Statute of limitations

Enforcement Strategy

Goal: To make landowners aware of the use restrictions and to encourage them to take advantage of the variance process if they want to build on a former missile site.

- How potential violations come to our attention
- Verify the violation
- Conference, Conciliation, and Persuasion (CC&P)
- Enforcement
- Referral Process
- Authority

Key Roles and Responsibilities

- Air Force
 - Will perform site assessments to ensure remediation of these sites continues to be protective of human health and the environment
 - Inspect all sites on a two-year time frame
 - Provide a written Annual Site Assessment/Inspection Report by January 31 of each year

Key Roles and Responsibilities [continued]

- Environmental Protection Agency – Region VII
 - Educational Outreach – Letters to be sent out to the counties and property owners of the sites reminding them of the use restrictions set out in the Quitclaim deeds.
 - Letters would be sent out every two years
 - EPA has enforcement authority under the Toxic Substance Control Act, specifically, 40 CFR 761.61(a)7,(a)(8),(a)(4)(B)(3) and (a)4(B)(5)

Key Roles and Responsibilities [continued]

- Missouri Department of Natural Resources
 - Handle inquires from property owners with construction issues
 - Review and comment on MMII site reconnaissance reports
 - Maintain tracking system for property inquires, inspections, and waiver approvals
 - MDNR will provide information to the USAF and EPA on Sites where compliance issues arise.

Long-Term Stewardship Agreement

- I. Identifies Parties
- II. Jurisdiction Discussion
- III. Purpose/Scope of the Agreement
- IV. Background
- V. Designated managers for agencies
- VI. Site Assessments
- VII. Compliance Section
- VIII. Remediation
- IX. Funding
- X. Dispute Resolution
- XI. Modification
- XII. Termination
- XIII. Signatures

Long-Term Management Plan

- Purpose: To ensure that all institutional and engineered controls designed to contain or to prevent exposure to residual contamination and waste are followed.
- Roles and responsibilities
- Monitoring and Surveillance
- Previous agreements
- Summary of groundwater monitoring
- Site Assessment Checklist

Discussion...

