The Missile Plains: Frontline of America's Cold War

Historic Resource Study Minuteman Missile National Historic Site, South Dakota

> Prepared for United States Department of the Interior National Park Service Midwest Regional Office

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List of Abbreviations

ABM Antiballistic Missile Installations

AD Air Division
Air Staff Air Force Air Staff

ARDC Air Research and Development Command

Army Corps Army Corps of Engineers
BG Bombardment Group
BMD Ballistic Missile Division
BMW Bombardment Missile Wing
BS Bombardment Squadron
BW Bombardment Wing

CEBMCO Corps of Engineers Ballistic Missile Construction Office

CIA Central Intelligence Agency

Convair Consolidated Vultee Aircraft Corporation

DE Declaration of Excess EWO Emergency War Order

FMMS Field Missile Maintenance Squadron GSA General Service Administration

HF high frequency

HICS Hardened Intersite Cable System ICBM Intercontinental Ballistic Missile

IG Inspector General

IMPSS Improved Minuteman Physical Security System ISST ICBM Super-High-Frequency Satellite Terminal

JCS Joint Chiefs of Staff LCC Launch Control Center LCF Launch Control Facility

LF Launch Facility

MALA Missile Area Landowners Association

MP Military Police

MPT Missile Procedures Trainer

NATO North Atlantic Treaty Organization

NPS National Park Service

OMMS Organizational Missile Maintenance Squadrons

ORI Operational Readiness Inspections

RON Remain-Over-Night

ROTC Reserve Officers' Training Corps

SAC Strategic Air Command

SALT Treaty Strategic Arms Limitation Talks Treaty

SDI Strategic Defense Initiative

SELM Simulated Electronic Launch-Minuteman SLBM Submarine Launched Ballistic Missile

SLFCS Survivable Low-Frequency Communication System

SMS Strategic Missile Squadron SMW Strategic Missile Wing

START Treaty Treaty Between the United States of America and the Union of Soviet Socialist

Republics on the Reduction and Limitation of Strategic Offensive Arms

TE Transporter Erector UHF ultrahigh frequency

USDA United States Department of Agriculture

USSTRATCOM United States Strategic Command

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VHF

WADC

very high frequency Wright Air Development Center Western Development Division, extension of ARDC WDD

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Preface

The purpose of this study is to bring to light the history and context of Minuteman Missile National Historic Site. To achieve this goal, a number of individuals and organizations have generously shared their knowledge and resources. Our special thanks extend to the staff of the National Park Service, including project manager Ron Cockrell, Minuteman Missile National Historic Site Historian Sue Lamie, Badlands National Park Superintendent William R. Supernaugh, contract manager Ron Eilefson, Mary McVeigh and Dan Savage of the Denver Service Center, Historic American Engineering Record staff, and additional National Park Service staff that reviewed and commented on the study.

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In addition our thanks go to the staffs of the various repositories with whom we consulted during the course of research for this project: Dr. Frederick Shaw and Joseph Caver and the staff of the Air Force Historical Research Agency at Maxwell Air Force Base in Montgomery, Alabama; the Air University Library at Maxwell Air Force Base; Bill Burr and the staff of the National Security Archive in Washington, D.C.; the John F. Kennedy Library in Boston; the Dwight D. Eisenhower Library in Abilene, Kansas; the Harry S. Truman Library in Independence, Missouri; the National Archives and Records Administration; the Boeing Archives; and the South Dakota State Historical Society State Archives.

This report was prepared under the direction of Dr. Jeffrey A. Engel, Principal Investigator. Christina Slattery of Mead & Hunt served as the project manager and primary author, with contributions from Mary Ebeling, Erin Pogany, and Amy R. Squitieri of Mead & Hunt. The report was also prepared with assistance from Emily Schill, Matthew Becker, and Victoria Redstone of Mead & Hunt.

Cover photos: Launch Control Center construction photo from Peter Kiewit and Sons', Inc.; Aerial view of Delta-01 from Library of Congress, Prints and Photographs Division, Historic American Engineering Record, Reproduction Number HAER SD-50-A-1; Minuteman comes to South Dakota from "Site Activation Chronology, Minuteman Project, Ellsworth Air Force Base, South Dakota, July 1963-October 1963," K243.012-40, in USAF Collection, AFHRA; and Launch Control Center construction photo from National Park Service.

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Introduction

Establishment and Purpose

In 1999 President Bill Clinton signed into law (Public Law 106-115) an Act of Congress providing for Minuteman Missile National Historic Site. Congress stated the purpose of the new park as follows:

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;

- 1. 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
- 2. 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.

To accomplish this purpose, the Secretary of the Interior was empowered to administer the site in accordance with the provisions of law generally applicable to units of the National Park System, including the establishing act of the National Park Service, approved 25 August 1916 (16 U.S.C. 1 et seq.) and the National Historic Sites Act of 21 August 1935 (16 U.S.C. 461 et seq.).

Geographic Location

Minuteman Missile National Historic Site, historically a part of Ellsworth Air Force Base, consists of Minuteman II Intercontinental Ballistic Missile (ICBM) Launch Control Facility (LCF) Delta-01 and Launch Facility (LF) Delta-09, located adjacent to Interstate 90 about fifty miles east-southeast of Rapid City, South Dakota. The LCF and the LF lie approximately ten miles apart. The Minuteman LCF Delta-01 site occupies an open, grassy tract of land on the west side of Jackson County Road CS 23A, approximately one-half mile north of Interstate 90, Exit 127. Minuteman LF Delta-09 site is located approximately ten miles west-northwest of LCF Delta-01. The LF Delta-09 occupies part of an open, grassy tract of land straddling Pennington County Road T512, about 0.6 miles west and south of Interstate 90, Exit 116. A visitor center will be the third component of Minuteman Missile National Historic Site and is planned to be located near Interstate Highway 90 and in proximity to the two historic sites.

Significance of Minuteman Missile National Historic Site

Delta-01 and Delta-09 were part of the Minuteman I and II missile systems that once dotted the landscape of South Dakota, North Dakota, Missouri, Montana, Wyoming, Colorado, and Nebraska. Minuteman III missiles remain in Wyoming, Montana, North Dakota, Colorado, and Nebraska. For nearly thirty years these missiles and their facilities remained on continuous alert and served an important role in America's triad of defense, including land-based ICBMs, submarine-launched missiles, and manned bombers. To deter Communist aggression, the United States developed Minuteman I with the ability to respond to an enemy attack with immediate and massive retaliation. In 1961 the Kennedy administration shifted the national policy to one of controlled response. The upcoming Minuteman II design was modified to allow for the launching of one or more missiles and providing a greater survival rate for the site with support facilities hardened belowground that were built to withstand the surface burst of a nuclear weapon. The first Minuteman II squadron went on alert in 1966 and in the following years Minuteman I facilities across

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the country were upgraded.

The Delta Flight Complex of Ellsworth Air Force Base, originally Minuteman I systems and updated in the early 1970s to Minuteman II, received new weapons, but the original structures were not modified and continued to represent the massive retaliation strategy of the early years of the Cold War. Facilities at other Minuteman deployment areas were configured or modified to implement the new controlled response strategy.

Minuteman II sites, with the exception of Delta-01 and Delta-09 of Ellsworth Air Force Base and Oscar-01 of Whiteman Air Force Base in Missouri, were destroyed or converted to Minuteman III sites in agreement with the Strategic Arms Reduction Talks Treaty. The remaining site on Whiteman Air Force Base, Oscar-01, is an underground Launch Control Center. Oscar-01 no longer has an associated LF and never included an aboveground LCF support building because it was supported by the surrounding base. Oscar-01 was originally constructed to reflect the later controlled response era of the Minuteman design with the construction of ground support facilities hardened (blast-proof) below ground.

Minuteman Missile National Historic Site is the only intact Minuteman II site remaining in the United States that contains an LCF and LF. Delta-01 and Delta-09 are also the only remaining intact examples that demonstrate the original Minuteman I configuration (modified to Minuteman II), designed to implement the Cold War policy of massive retaliation. Minuteman Missile National Historic Site provides the opportunity to interpret the Cold War and the role of the Minuteman missile defense system and what it meant to work with the missiles and live near the sites.

Organization of the Historic Resource Study

To assist in the interpretation and understanding of the cultural, political, social, and economic history of Minuteman Missile National Historic Site, the Historic Resource Study is divided into three main sections.

Section I – The Cold War and National Armament will provide the global and national context for Minuteman Missile National Historic Site. Chapter 1 of Section 1, the history of the Cold War, focusing on the 1950s and 1960s, will describe how nuclear systems developed. This chapter will also focus on the political climate and foreign policy decisions of Presidents Eisenhower and Kennedy and how these factors affected development of strategic missiles and nuclear armament systems. Chapter 2 will provide a background on ICBM program beginnings and liquid-fuel ICBMs, placing the development of solid-fuel ICBMs into context. Chapter 3 will discuss development and capabilities of both the Minuteman I and Minuteman II missile systems and provide an overview of the development of Minuteman III and the future generation of missile development.

Section II – Life on the South Dakota Plains: Before, During, and After Minuteman will present the history of the Minuteman missile in South Dakota in five chapters. Chapter 1 will provide a brief overview of the prehistory and history of the region discussing Native American history, land speculation and settlement, and continued agricultural uses. This background will describe the landscape and environment prior to the establishment of 150 Minuteman I and II LFs and fifteen LCFs throughout the state.

Chapters 2 to 5 will continue to discuss the development, construction, and activities of the missile sites in South Dakota from the 1960s through the 1980s when the sites were still active, with an emphasis on LCF Delta-01 and LF Delta-09. A history of the U.S. Air Force highlighting the Strategic Air Command and Ellsworth Air Force Base in Chapter 2 will provide the background for a discussion of the 44th Strategic Missile Wing, which commanded the Minuteman sites in South Dakota. Chapter 3 will provide the history of the location, land purchase, and construction of the Minuteman sites in South Dakota. This chapter will also discuss both immediate economic and social impacts to the region, as well as the effects over the years. The location and features of Delta-01 and Delta-09 will be described and illustrated in Chapter 4. Section II will continue with a discussion of the day-to-day activities of the personnel assigned to the

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missile sites in Chapter 5. This discussion will include the training, roles, and responsibilities of the missile combat crew, facility manager, security and maintenance personnel, and the cook. Section II will conclude by addressing changes in the roles, responsibilities, and personnel at the sites during the Minuteman's tenure, including the introduction of female missileers and addressing racial issues among personnel at the sites and within the greater community.

Section III – Peace Movement, Nuclear Disarmament, and the Future will return to the national and international arenas discussing the opposition to nuclear armament, the end of the Cold War, and the future for Minuteman Missile National Historic Site. The national peace movement discussion in Chapter 1 will feature regional protests conducted at the missile sites. Chapter 2 will focus on nuclear arms treaties, including the Strategic Arms Reduction Talks Treaty and the deactivation of the Minuteman sites. The deactivation discussion will focus on the sites in South Dakota, including landowner issues, the inactivation of the 44th Strategic Missile Wing, and the opportunity to retain Delta-01 and Delta-09 for interpretive purposes. Chapter 3 will highlight the process to establish Minuteman Missile National Historic Site and the cooperation between the U.S. Air Force and the National Park Service towards this effort.

