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This instruction implements AFPD 91-1, *Nuclear Weapons and Systems Surety*. It applies to all operations involving the following *Minuteman* and *Peacekeeper* intercontinental ballistic missile (ICBM) weapon systems: WS-118, LGM-118A, MK-21/W87; WS-133A-M Command Data Buffer (CDB) [including Rapid Execution and Combat Targeting (REACT)], LGM-30G, MK-12/W62; WS-133A-M CDB (including REACT), LGM-30G, MK-12A/W78; WS-133B CDB (including REACT), LGM-30G, MK-12/W62; and WS-133B CDB (including REACT), LGM-30G, MK-12A/W78. Section A gives the authority and limitations of this instruction and assigns responsibility for implementing the safety rules. Section B contains the safety rules for *Minuteman* and *Peacekeeper* weapon systems in operational configuration and specific safety rules for Simulated Electronic Launch--*Minuteman* (SELM), Simulated Electronic Launch--*Peacekeeper* (SELP), and Unique Signal Device Assembly (USDA) Connectivity Tests. The safety rules in Section B may only be changed or supplemented using procedures in AFI 91-102, *Nuclear Weapon System Safety Studies, Operational Safety Reviews, and Safety Rules.* This instruction does not apply to US Air Force Reserve and Air National Guard units and members. Attachment 1 is a list of abbreviations and acronyms used in this instruction.

SUMMARY OF REVISIONS

Incorporates REACT, deletes Minuteman II. Adds temporary limitation applying to REACT consoles.

Section A—Authority, Limitations, and Responsibilities

1. Joint Chiefs of Staff (JCS). The JCS direct the Chief of Staff, US Air Force, to implement the safety rules.

2. Temporary Limitations. The Air Force may impose restrictions on application of safety rules.

2.1. For the WS-133A-M and WS-118: Do not use the magnetic tape unit to load operational weapon system controller Pen C codes in a launch control center (LCC).

2.2. Make sure these installed LCC items have at least one independently numbered seal of a type that AFI 91-104 (paragraph 2) identifies:

- Right voice control panel
- Console power control and distribution unit
- Rapid message processor

3. Functional Responsibilities.

3.1. The Commander, Air Force Safety Center:

- Ensures that the safety rules work, providing maximum safety consistent with operational requirements.
- Ensures that units follow the safety rules.

3.2. Using Major Commands (MAJCOM):

- Ensure that their units follow the safety rules.
- Ensure that all safety standards and procedures agree with the approved safety rules.
- Inspect for compliance.

3.3. Air Force Materiel Command (AFMC).   AFMC ensures that its manuals, checklists, and technical orders do not conflict with the safety rules.

Section B—Safety Rules

4. General Guidance.

4.1. Safety rules always apply, even during war.

4.2. These safety rules also apply to interflight connection and checkout operations.

4.3. A commander may deviate from a specific rule in an emergency, but may not expend a nuclear weapon until an emergency war order (EWO) authorizing launch is received and authenticated. DoD Directive 3150.2, *Safety Studies and Reviews of Nuclear Weapon Systems,* February 8, 1984, defines an emergency as "an unexpected occurrence or set of unexpected circumstances in which personnel or equipment unavailability, due to accident, natural event, or combat, may demand immediate action that may require extraordinary measures to protect, handle, service, transport, or employ a nuclear weapon."

4.4. These safety rules, weapon system features, operational and administrative controls, and technical procedures make sure that weapon systems meet Nuclear Weapon System Safety Standards in AFI 91-101, *Air Force Nuclear Weapons Surety Program.*

5. Security Criteria.

5.1. AFI 31-101, *The Air Force Physical Security Program,* and DoD C-5210.41-M, *Nuclear Weapon Security Manual (U),* April 1994, apply.

5.2. A Two-Person Concept team must continuously guard a launch facility (LF) that has a missile with a reentry system (RS) or an LF that has one or more operational codes or code components present and one or more of the following conditions:

- LF status cannot be monitored (LF Status Out or LF Down).
- The "B" circuit combination has been compromised.
- The secondary vault door cannot be fully raised and locked with the "B" circuit combination scrambled.
- The launcher closure is not locked in the closed position.
- Inner Zone and Outer Zone security systems are not reporting or are not capable of reporting true status.

5.3. Continuously guard an LF that is not cryptographically authenticated (LF not authenticated

(LFNA) indications received). A Two-Person Concept team must:

- Investigate any unauthorized change in LF security status and authenticate a voice report confirming the results of their investigation.
- Verify security status at less than 4-hour intervals and authenticate a voice report confirming the status.

6. Tamper Control and Detection.   AFI 91-104, *Nuclear Surety Tamper Control and Detection Programs,* defines the Two-Person Concept and sealing requirements.

6.1. Controls must prevent unauthorized seal use and handling.

6.2. A Two-Person Concept team must install the seals.

6.3. A Two-Person Concept team must inspect all installed seals at each crew changeover.

6.4. If the integrity of an installed seal is lost or in doubt:

- Maintain continuous Two-Person Concept control of the protected item until the seal integrity is restored or the seal is replaced.
- Investigate according to AFI 91-204, *Investigating and Reporting US Air Force Mishaps.*

7. Handling and Storage of Critical Components and Certified Software.   AFI 91-105, *Critical Components,* applies.

8. Personnel Reliability.   AFI 36-2104, *Nuclear Weapons Personnel Reliability Program,* and DoDD 5210.42, *Nuclear Weapon Personnel Reliability Program,* May 25, 1993, applies.

9. Troubleshooting, Modifications and Use of Procedures, and Checklists.

9.1. Do not use nuclear weapons to troubleshoot equipment faults.

9.2. Use only equipment, procedures, or checklists that are consistent with US Air Force-approved publications for any operation directly associated with nuclear weapons or nuclear weapon systems.

9.3. Make sure the US Air Force has approved all *Minuteman* and *Peacekeeper* publications and modifications and that the publications and modifications conform to the safety rules and the DoD Nuclear Weapon System Safety Standards.

10. Warhead Storage.   Secure in DoD-approved facilities.

11. Nuclear Identification.   Set up administrative controls and procedures to provide positive means of distinguishing between:

- Nuclear warheads and training shapes.
- Containers (including shipping and storage containers, RSs, and reentry vehicles (RVs)) with nuclear warheads and containers without nuclear warheads.

12. Logistics Movement of Nuclear Weapons by Cargo Aircraft.   AFI 91-115, *Safety Rules for Nuclear Logistics Transport,* applies.

13. Operational Code Control.

13.1. Do not let an individual, a code courier team, or an installation team handle, have access to, or have any combination of codes or encoder or decoder devices, at the same time, that reveal the information needed to launch a nuclear weapon. A Two-Person Concept team must control any device containing operational code data until the data is overwritten, superseded, or destroyed.

13.2. Deny LF entry to an individual who had access to a Computer Memory Security Check (CMSC) number that the Wing Code Processing System (WCPS) calculated for that LF until the LF's missile guidance computer calculates the CMSC number and the number is verified.

13.3. Deny launch control center (LCC) entry to an individual who had access to a Computer Memory Confidence Check (CMCC) number that the WCPS calculated for that LCC until the weapon system controller (WSC) at that LCC calculates the CMCC number and the number is verified.

13.4. Before using a squadron's data set to prepare operational code materials for the assembled weapon system, make sure the WCPS computer verifies the squadron code sumcheck (SCSC) number that the Offutt Air Force Base ICBM Code Processing System (ICPS) computer calculated.

13.5. Ensure proper escort for an individual who seeks entry to an LCC or LF containing operational codes if the individual has had access to:

- The current operational code values, or
- The ICPS or WCPS during preparation of current operational code data

13.6. Do not store USCAS 401 or USCAL 193 documents in an LCC.

13.7. Make sure these LCC items, if installed, have at least one independently numbered seal, of a type that AFI 91-104 (paragraph 2), identifies:

- Launch control panel (LCP).
- Enable panel.
- Launch Enable Control Group Signal Panel (LECGSP)
- Secure data unit (SDU) keying variable door and drawer, or access drawer.
- WSC computer processor-verifier drawer.
- Message processing auxiliary storage device. (WS-118 only)
- Spare Drawer (URD 16231A5). (*Minuteman* only)
- WSC plated wire memory unit drawer.

- Memory controller group (MCG) controller-synchronizer drawer.
- MCG magnetic drum memory unit drawer.
- Coder-Decoder Assembly (CDA) door and drawer
- Weapon System Processor (WSP) drawer
- Diagnostic Port Access door and panel

13.8. In addition to installed equipment, one operationally coded LCP, one LECGSP or an operationally coded enable panel, and one SDU keying variable may be temporarily stored in the LCC for which the equipment is intended when:

- Squadron code change is in process.
- Reposturing is in process, after simulated electronic launch testing or category B operations.

NOTE:

In these instances, seal the carrying case that stores the item with at least one seal on each of the case's sides adjacent to the hinged side. (Paragraph **6.** describes other requirements.)

13.9. Code the secure coded device only inside the WCPS shielded enclosure (WS-118 only).

14. Operations Involving an Assembled Weapon System. These rules apply when an RS containing a nuclear warhead is mated to a missile:

14.1. Except during emergency combat capability (ECC) operations (paragraph **17.**), at least two LCCs in a squadron must monitor the status of, and be able to inhibit, each operational LF in the squadron. If only one LCC can monitor and inhibit, crews must begin single LCC operations paragraph **16.** or have affected LFs safed as paragraph **14.2.** requires.

14.2. If any of the conditions in subparagraphs **14.2.1.** through 14.2.4. exist, manually lock the affected LF's safety control switch (SCS) in the SAFE position or (for *Minuteman* only) install the missile safing pins until Emergency Action Procedures (EAP) direct return to a normal configuration:

14.2.1. An LCC can insert a launch command, the LF can process the command, and no other LCC can inhibit and monitor the LF.

14.2.2. No LCC can prevent Airborne Launch Control System (ALCS) aircraft access (the ability to insert enable or launch commands) and ALCS access is not authorized.

14.2.3. A missile cannot respond to an inhibit launch command and the missile is not in:

- The standby NO-GO mode or LF NO-GO mode (WS-133A-M).
- The standby NO-GO mode or the Auxiliary Status Generator (ASG) mode (WS-133B).
- Critical NO-GO mode or missile shutdown mode (WS-118).

14.2.4. LF status cannot be monitored (LF Status Out or LF Down) unless one of these states occurred first:

- The LF NO-GO mode (WS-133A-M).
- The ASG mode (WS-133B).
- Critical NO-GO mode (WS-118).

14.3. These crewmember procedures apply in the LCC:

14.3.1. The Missile Combat Crew Commander and the Deputy Missile Combat Crew Commander must be on duty at the same time.

14.3.2. One crewmember at a time may sleep on duty, but both must be awake and capable of detecting an unauthorized act if:

14.3.2.1. The sealed authenticator container is unlocked and authenticators are present.

14.3.2.2. Translate code values are installed.

14.3.2.3. A possible or confirmed code compromise affects the LCC or flight area.

14.3.2.4. Seals on items that must be sealed (paragraphs **13.7.** and 13.8) have lost integrity or are in doubt.

14.3.2.5. The LCC blast door is open.

14.3.2.6. The LCC is operating in a single LCC configuration.

14.3.2.7. Someone other than the crew is in the LCC. EXCEPTIONS: The wing commander, vice commander, operations group commander, deputy operations group commander, or the commander of the squadron to which the LCC belongs, when the noncrewmember:

- Has had no access to either the *Minuteman* or *Peacekeeper* unauthorized launch or launch action studies.
- Knows no portion of the current Single Integrated Operational Plan unlock values or secure selective unlock values.
- Has current Personnel Reliability Program certification.
- Is squadron's only visitor.

14.3.3. Both crew members must authenticate an execution order before initiating an enable or execute launch command.

14.3.4. Unless they receive an authenticated execution order, the crew must immediately begin:

14.3.4.1. For the WS-133B: Inhibit procedures after receiving enable or execute launch command indications.

14.3.4.2. For the WS-133A-M or WS-118:

- Inhibit/anti-jam procedures after receiving enable or execute launch command indications.
- LF Status Out procedures when uncoordinated LF Status Out indications exceed 1 minute and occur in modes other than the anti-jam transmission mode (non-REACT only).

14.3.5. Initiate the remote data change halt command immediately after receiving indications of unauthorized sole-survivor retargeting actions.

14.4. Keep these LCC switches as listed until an authenticated execution order directs otherwise:

14.4.1. For the WS-133A-M and WS-118:

- Enable switch in the SET position.

- Launch switch in the SET position.

14.4.2. For the WS-133B:
- Enable switch in the SET position.
- Launch switch in the OFF position.

14.5. Do not allow ALCS access to LFs until EAP authorize access.

14.6. Do not allow the Airborne Launch Control Center (ALCC) hold-off timer to reach zero until authorized by EAP.

14.7. Cooperative Enable Timers:
- Maximum setting for display timer is 1 second.
- Maximum setting for entry timer is 4 seconds.

14.8. Provide sufficient time for monitoring LCCs to recognize and inhibit a single execute launch command while multiple LCCs operate. MAJCOM directives specify the time for the one-vote timer:
- WS-133A-M and WS-118 minimum setting is 30 minutes.
- WS-133B minimum setting is 6 hours.

15. Operations Involving Maintenance on an Assembled Weapon System. All the safety rules in **4.**paragraphs 4 through 14 apply during maintenance on an assembled weapon system. These rules also apply:

15.1. As soon as possible after personnel enter the launcher, manually safe the LF's SCS and remove the SCS key from the lockpin assembly. The SCS must stay in the SAFE position when personnel occupy the launcher, except when the only maintenance being done is observing the SCS during SCS tests.

15.2. (*Minuteman* only). Pin all safe and arm devices and arm/disarm devices in the SAFE position before:

15.2.1. Removing the SCS lock pin during maintenance (except as noted above for SCS tests).

15.2.2. D-Box maintenance.

15.2.3. Personnel enter the launch tube to:

15.2.3.1. Connect, disconnect, or troubleshoot the upper or lower umbilical.

15.2.3.2. Weld.

15.2.3.3. Remove or replace the RS.

15.2.3.4. Remove, replace, or perform maintenance on the:
- Missile.
- Missile guidance set or propulsion system.

15.3. Remove the RS from the missile for:
- Missile recycle.
- RS or warhead maintenance.

- Missile guidance set or propulsion system maintenance (*Minuteman* only).
- Requirements identified in technical order 21-LG118A-12 (WS-118).

16. Single Launch Control Center Operations. All rules in paragraphs **4.** through 15 apply if an assembled weapon system operation regresses to LF control by a single LCC. These rules also apply:

16.1. The installed LCP must be coded only with the operational inhibit code. Dissipate all operational launch code data from mechanical code units (MCU). EXCEPTION: During predetermined advanced readiness conditions, as specified by EAP or higher headquarters directives, missile combat crews (MCCs) need not dissipate operational codes in the single LCC. However, begin ECC operations according to paragraph 17 as soon as the situation permits.

16.2. Keep all operational LCPs for the affected squadron under Two-Person Concept control or in a secured area requiring Two-Person Concept team access. Keep these LCPs at the missile support base until predetermined levels of advanced readiness when EWO or higher headquarters directives authorize delivery to the LCC to support ECC operations.

16.3. A fully programmed spare WSC or Head Disk Assembly (HDA) must be available in case of failure.

16.4. The LCC requires continuous Two-Person Concept control (paragraph **14.3.2.6.**).

17. Emergency Combat Capability (ECC) Operations. During ECC operations, the rules in paragraphs **4.** through 15 apply, except those in paragraph **13.8.** These rules also apply:

- Operational LCPs may be taken to, and stored in, the LCC.
- When operational LCPs are present, two MCCs (four crewmembers in all) must have concurrent duty inside the LCC. At least two crewmembers must be awake at all times.
- The installed LCP must be coded only with the operational inhibit code. LCPs with operationally coded, launch code MCUs may be installed at predetermined levels of advanced readiness as higher headquarters or EAP direct.
- Both MCCs must authenticate an execution order before initiating an enable or an execute launch command.
- A fully programmed spare WSC or HDA must be available in case of failure.

18. Simulated Electronic Launch--Minuteman (SELM) Tests. During SELM tests, the rules in paragraphs 4 through 15 still apply to test configured sites, except those in paragraph 14.1. These rules also apply.

18.1. Remove the RS from the test LF when:
- Any ordnance item will be expended.
- Only one LCC is used in the test configuration.
- An anomaly occurs that is nuclear safety related or increases the possibility of an abnormal environment occurring.

18.2. Electrically disconnect test LFs and test LCCs from the nontest LFs and LCCs on the command circuits of the hardened intersite cable network:

- Isolate WS 133A-M command lines by removing the corresponding connecting links in the LF interconnecting box and installing command-line isolators.
- Isolate WS-133B command lines by installing command-line isolators. Change the operating frequency in the test LFs and test LCCs to maintain medium frequency (MF) radio isolation.

18.3. Maintain operational status interrogation routines in cable and (WS-133B) radio modes in the nontest portion of the test squadron.

18.4. Operational SDU keying variables may be used during SELM tests. Replace all other operational codes at test LFs and test LCCs with test codes before SELM testing.

18.5. Use excluded "X," "Y," and "L" code blocks to generate codes installed in test LFs and test LCCs.

18.6. Before issuing critical commands, command an infinite time delay to each nontest LF in the test squadron. Verify infinite time delay status at each nontest LF or safe the LF before continuing the test.

18.7. During the ground test, manually safe any nontest LF for which status monitoring is lost:
- For the WS-133A-M, this applies to LFs in the same squadron
- For the WS-133B, this applies to LFs in the same wing.

18.8. Before or during the ALCS test, if status monitoring is lost for any nontest LF in the same wing, manually safe that LF. Stop the test until safing is completed. This safing requirement applies only to like configurations in wings with multiple system configurations.

18.9. Conduct isolation verification immediately before the airborne and ground tests.

18.10. Make sure the test ALCS aircraft transmits only proper commands by verifying:
- The coded Portable Storage Unit and volatile keying assemblies (VKA) on board the test ALCS aircraft contain only test data.
- All commands transmitted from the ALCS aircraft to the test LFs are on the frequencies and tones designated for the SELM tests.

18.11. After the test ALCS aircraft issues the first enable command, determine the status of each LF (of the same weapon system) in the MAJCOM. After verifying the nontest LFs did not process the enable command, the ALCS aircraft must transmit the inhibit launch command and poll the test squadron to ensure that no nontest facility received the inhibit launch command.

18.12. If nontest facilities in the MAJCOM receive test commands, proceed only after determining why and completing necessary corrective actions.

18.13. For test LFs with an RS, two LCCs in the test squadron must monitor the status of, and be able to inhibit, each such test-configured LF in the squadron. In addition, install test-coded LCPs in the test LCCs before the last-look inspection. If less than two LCCs retain the ability to monitor or inhibit, safe all affected LFs (by installing missile safing pins or manually locking the SCS in the SAFE position) and stop the test until the condition is corrected.

18.14. At least two nontest LCCs in the test squadron must be operational and capable of monitoring and transmitting the inhibit launch command to nontest LFs. If less than two nontest LCCs retain their monitoring or inhibiting capability, stop the test. The remaining nontest LCC must begin single LCC

operations (paragraph 16). Do not start testing again until the proper number of LCCs are available to control test and nontest LFs.

- For the WS-133A-M, cable interconnectivity between operational flights must be such that a single fault will not result in single LCC control of an operational flight or LF.
- For the WS-133B, nontest LFs not under the cable control of two nontest LCCs must be interrogated in at least two MF radio timeslots.

18.15. Administrative controls and procedures must positively distinguish between code tapes and devices containing test codes from those with operational codes.

18.16. Before testing, a Two-Person Concept team of individuals who were not on the maintenance team that configured the test LF must conduct a last look inspection to verify that personnel:

- Disconnected the first-stage ignition branch of the lower umbilical cable from the D-Box and capped the branch.
- Properly pinned all safe and arm devices and arm/disarm devices, and disconnected and capped the RS cable.

NOTE: Procedures must be performed again if the launch tube is penetrated after these inspections.

- Configured the test LF properly.
- Removed the missile guidance set battery from the missile.
- Installed command-line isolators properly.

19. Simulated Electronic Launch--Peacekeeper (SELP) Tests. During SELP tests, the rules in paragraphs 4 through 15 apply, except for those in paragraph **14.1.** These rules also apply.

19.1. RS Removal. Remove the RS from the test LF if:

- Any ordnance item will be expended.
- Lithium batteries will provide power to the test LF.
- Only one LCC is used in the test configuration.

19.2. Isolation Procedures:

- Install test-coded LCPs in each test LCC before missile startup of any test-configured missile.
- Conduct an inhibit test of both test and nontest LFs using the test-coded LCPs before last-line cable isolation to verify code isolation.
- Electrically disconnect test LFs and LCCs from nontest LFs and LCCs on the command circuits of the hardened intersite cable network.
- Isolate command lines by removing the corresponding connecting links in the test LF and LCC interconnecting boxes and installing command-line isolators at test LFs. Verify isolation immediately before airborne and ground tests.

19.3. Codes:

- Use operational SDU keying variables, Secure Code Device (SCD) L' Codes, and KI-45 mode B keying variables during SELP tests.
- Use excluded "X," "Y," "L," and "G" code blocks and test keying variable plugs and associated test "F" data to generate codes installed in test LFs, LCCs, and ALCS aircraft.

- Use SELP-dedicated operational KI-45 mode A keying variables in ALCS aircraft.
- Replace SCDs at test LFs with newly coded SCDs after the SELP test.
- Set up administrative controls and procedures to positively distinguish code tapes and devices with operational codes from those with test and SELP codes.

19.4. Commands:

- Before issuing the enable, execute launch command, and Automatic Launch Command (AUTO) commands, verify infinite time delay status of each nontest LF in the squadron or manually safe the LF before continuing the test.
- For ALCS tests, verify Radio Mode (RADMO) status is not reporting for any nontest LF in the test squadron before transmitting Airborne Launch Control Center commands or manually safe the LF before continuing the test.
- If nontest facilities (of the same weapon system) accept test commands, continue testing only after determining why and completing corrective action.

19.5. Manual Safing:

- The test LF must stay manually safed until the last-look inspection, except during remote missile test.
- Before or during the SELP test, if status monitoring is lost for any nontest LF, if LF status is reported by Auxiliary Status Reply, or if RADMO status is reported, stop the test until that nontest LF is manually safed.

19.6. Airborne Launch Control System:

- Make sure the ALCS test aircraft transmits only proper commands by verifying that SELP-dedicated operational Portable Storage Unit and volatile keying assemblies on board the ALCS test aircraft contain only test and SELP data.
- After the ALCS test aircraft transmits the first enable command, determine the status of each test and nontest LF (of the same weapon system). After verifying that the test LFs accepted the enable command and nontest LFs did not, the ALCS test aircraft must transmit the inhibit command. Check test LF status to verify that the LF accepted the inhibit command and returned to the disenabled state. Do this command sequence before the ALCS test aircraft transmits the first AUTO command to verify appropriate ALCS test and SELP codes.

19.7. Last-Look Inspection. A Two-Person Concept team of individuals who were not on the maintenance team that configured the test LF must conduct the last-look inspection.

19.7.1. Before test execution, the Two-Person Concept team conducting the last-look inspection must verify that personnel have:

- Disconnected cable W8252 from the Distribution Box (D-Box) and connected it to the W02, which connects to the Data Acquisition System.
- Put the Unique Signal Device Assembly (USDA) in the "SAFE" position by temporarily reconnecting cable W8260 to the D-Box and verifying the Missile Operational Status Reply (MOSR) 59 resets.
- Disconnected and capped the USDA drive cable W8260.
- Connected the SELP cable W10 to stage four cables W4MP3 and W4HP2.

- Configured ordnance items properly. (The team must verify appropriate status of Ground Maintenance Response 23 (GMR 23) and MOSRs 12 and 13 with the controlling LCC.)
- Installed all command-line isolators properly.

19.7.2. If someone enters the launcher equipment room after these inspections, perform the procedures in paragraph 19.7.1 again.

19.8. Status Monitoring:

- Two test LCCs must monitor the status of, and be able to inhibit each test LF with an RS. If either LCC loses monitoring capability, immediately guard all affected LFs until the condition is corrected.
- At least two nontest LCCs must monitor the status of, and be able to inhibit, each nontest LF. If not, the crews must assume single LCC operations (paragraph **16.**). Stop the test until the proper number of LCCs are available to control test and nontest LFs.

20. USDA Connectivity Tests.

- Apply the rules in **4.**paragraphs 4 through 15 to USDA connectivity tests
- Remove the RS from the test missile.
- Before installing the RS, load the operational launch control program and verify the USDA "SAFE" position again.

ORIN L. GODSEY., Brig General, USAF
Chief of Safety

Attachment 1

LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviations and Acronyms

AFMC—Air Force Materiel Command

ALCC—Airborne Launch Control Center

ALCS—Airborne Launch Control System

ASG—Auxiliary Status Generator

AUTO—Automatic Launch Command

CDA—Coder-Decoder Assembly

CDB—Command Data Buffer

CMCC—Computer Memory Confidence Check

CMSC—Computer Memory Security Check

D-BOX—Distribution Box

DoD—Department of Defense

DSAP—Data Store and Processor

EAP—Emergency Action Procedures

ECC—Emergency Combat Capability

EP—Enable Panel

EWO—Emergency War Orders

GMR—Ground Maintenance Response

HDA—Head Disk Assembly

ICBM—Intercontinental Ballistic Missile

ICPS—ICBM Code Processing System

ILCS—Improved Launch Control System

JCS—Joint Chiefs of Staff

JS—Joint Staff

LCC—Launch Control Center

LCP—Launch Control Panel

LECGSP—Launch Enable Control Group Signal Panel

LF—Launch Facility

LFNA—Launch Facility Not Authenticated

MAJCOM—Major Command

MCC—Missile Combat Crew

MCG—Memory Controller Group

MCU—Mechanical Code Unit

MF—Medium Frequency

MK—Mark

MOSR—Missile Operational Status Reply

RADMO—Radio Mode

REACT—Rapid Execution and Combat Targeting

RS—Reentry System

RV—Reentry Vehicle

SCD—Secure Code Device

SCS—Safety Control Switch

SCSC—Squadron Code Sumcheck

SDU—Secure Data Unit

SECDEF—Secretary of Defense

SELM—Simulated Electronic Launch--*Minuteman*

SELP—Simulated Electronic Launch--*Peacekeeper*

URD—Unit Reference Designator

USDA—Unique Signal Device Assembly

VKA—Volatile Keying Assembly

WCPS—Wing Code Processing System

WSC—Weapon System Controller

WSP—Weapon System Processor