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SECRETARY OF THE AIR FORCE**



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Safety

**SAFETY RULES FOR US/NATO STRIKE
FIGHTERS**

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This instruction implements AFD 91-1, *Nuclear Weapons and Systems Surety*. This publication is consistent with AFD 13-5, *Air Force Nuclear Enterprise*. It applies to US F-15E, US/NATO F-16A/B/C/D, and NATO PA-200 aircraft and nuclear weapons dedicated for use with the aircraft. Section A assigns responsibilities. Section B contains each nuclear weapon systems' safety rules. 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*. See attachment 1 for abbreviations and acronyms used in this instruction. This instruction does not apply to the Air Force Reserve and Air National Guard. **Records Disposition.** Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://www.my.af.mil/gcss-af61a/afrims/afrims/>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF IMT 847, *Recommendation for Change of Publication*; route AF IMT 847s from the field through the appropriate functional's chain of command.

SUMMARY OF CHANGES

This interim change (IC) adds new language in the introductory paragraph, specifically the second sentence, to make this publication consistent with AFD 13-5, *Air Force Nuclear Enterprise*. This IC also adds AFD 13-5 in the reference section of Attachment 1.

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Section A—Authority and Responsibilities

1. Secretary of Defense Direction. The Secretary of Defense has directed the Secretary of the Air Force to implement the rules.

2. Functional Responsibilities:

- 2.1. The Commander, Air Force Safety Center, must ensure:
 - 2.1.1. Safety rules work, providing maximum safety consistent with operational requirements.
 - 2.1.2. Units follow the safety rules.
- 2.2. Using major commands:
 - 2.2.1. Ensure their units follow the safety rules.
 - 2.2.2. Ensure safety standards and procedures agree with the safety rules.
 - 2.2.3. Inspect for compliance.
- 2.3. Air Force Materiel Command ensures its manuals, checklists, and technical orders do not conflict with the safety rules.

Section B—Safety Rules

3. General Guidance.

- 3.1. Nuclear weapons shall not be intentionally exposed to abnormal environments except in an emergency.
- 3.2. Nuclear weapons shall not be used for training or for troubleshooting.
- 3.3. Nuclear weapons may be used for exercises except when explicitly prohibited by specific safety rules.
- 3.4. Only certified procedures, personnel, equipment, facilities, and organizations, authorized by the appropriate level of authority, shall be employed to conduct nuclear weapon system operations.
- 3.5. The total number of personnel performing nuclear weapon system operations shall be held to the minimum consistent with the operations performed.
- 3.6. At least two authorized persons must be present during any operation with a nuclear weapon, except when authorized by a specific safety rule; i.e., alert fly. They must be able to detect incorrect or unauthorized procedures in the task being performed. They must also have knowledge of and understand applicable safety and security requirements.
- 3.7. Personnel that have physical access to nuclear weapons must be qualified under the PRP, in accordance with DoD Directive 5210.42-R, *Nuclear Weapon Personnel Reliability Program*.
- 3.8. Physical security will be maintained, in accordance with DoD Directive S-5210.41M, *Nuclear Weapon Security Manual (U)*.
- 3.9. Nuclear weapons will be transported as determined by the Combatant Commander or the Military Department, in accordance with DoD Directive 4540.5, *Logistic Transportation of Nuclear Weapons*. Additionally, the following safety guidance applies:
 - 3.9.1. Movement(s) will be kept to a minimum consistent with operational requirements.

3.9.2. Custody and accountability transfers during logistic movements shall be by courier receipt system to ensure positive control.

3.10. Permissive Action Link (PAL) operations shall be in accordance with plans and procedures prescribed by the applicable Combatant Command and technical publications.

3.11. Verification that a nuclear warhead is not present in a test assembly must be made utilizing nonnuclear assurance procedures at the last practical opportunity agreed upon by the Department of Defense and/or DoE before the conduct of an operational test.

3.12. Deviations from safety rules are permitted in an emergency, except as follows:

3.12.1. U.S. custody must be maintained until receipt of a valid nuclear control order that permits transferring U.S. nuclear weapons to non-U.S. delivery forces.

3.12.2. Nuclear weapons shall not be expended unless a valid, properly authenticated nuclear control order conveying release or expenditure authority is received.

3.12.3. Jettisoning of nuclear weapons is permitted in the event of an emergency, and is to be accomplished according to plans and procedures prescribed for the area of operations.

4. Specific Guidance.

4.1. These safety rules apply to nuclear capable units that operate the F-15E, F-16A1B/C/D, and/or PA-200 strike aircraft (US/NATO Strike Fighters) and/or possess the nuclear weapons dedicated for use with these aircraft. Rules pertaining to protective aircraft shelters (PAS) containing nuclear weapons-loaded Weapons Storage and Security Systems (WS3) apply regardless of the type aircraft parked in the PAS.

4.2. The following weapons are authorized:

4.2.1. B61-3

4.2.2. B61-4

4.2.3. B61-10

5. Temporary Limitations. The US Air Force may impose more stringent restrictions on application of safety rules.

6. Nonnuclear Assurance. IAW DoD 3150.2-M, *DoD Nuclear Weapons System Safety Program Manual* Appendix A, Paragraph B11, "Verification that a nuclear warhead is not present in a test assembly must be made using nonnuclear assurance procedures at the last practical opportunity agreed on by the DoD and/or DOE before the conduct of an operational test."

7. Troubleshooting and Use of Equipment, Procedures, and Checklists:

7.1. Do NOT use nuclear weapons to troubleshoot faults. Use only equipment and procedures that are consistent with US Air Force-approved publications for nuclear weapons or nuclear weapon systems operations.

7.2. Do NOT modify aircraft monitoring and control (AMAC), stores management system (SMS), suspension and release systems, handling and test equipment, or any aircraft system, including software, that affects nuclear surety without US Air Force approval.

7.3. Approved publications and modifications must conform to weapons system safety rules and meet the DoD Nuclear Weapon System Safety Standards.

8. Security Criteria. Allied Command Operations (ACO) Directive 80-6, US European Command Directive 60-12, *Nuclear Surety Management for the WS3*; DoD Directive 5210.41, *Security Policy for Protecting Nuclear Weapons*, DoD S-5210.41-M, *Nuclear Weapons Security Manual (U)*, and Air Force Supplement; and AFI 10-1101, *Operations Security (OPSEC) Instructions*, apply. Security provided by Non-US military services must meet the above.

8.1. For US/NATO joint theater operations in Allied Command Operations, SACEUR, and CDRUSEUCOM set security requirements for all nuclear weapon operations. They must be at least equal to US Air Force security directives.

8.2. Individuals performing nuclear weapon operations must:

8.2.1. Have at least a **SECRET** clearance granted IAW US Air Force or NATO-nation security directives. NATO clearance and investigative requirements must be at least equal to US Air Force requirements.

8.2.2. Be specifically authorized to perform such operations.

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

9.1. Tamper Control (Two-Person Concept). While weapons are under US custody, all two-person concept teams must have at least one US member. A two-person concept team shall:

9.1.1. Verify seal integrity and safe position of switches that are safety wired and sealed.

9.1.2. Verify controls and seals before placing a system on alert.

9.1.3. Verify controls and seals after any person has had access to the cockpit.

9.2. Tamper Detection (sealing). Authorized user-nation personnel must apply seals to designated prearming and release controls. The seals must:

9.2.1. Have a distinctive marking.

9.2.2. Provide evidence of tampering or accidental activation.

9.3. An aircraft with all preload functions complete and ready for weapons mating and loading (i.e. safety wired and sealed) is a critical component and handled IAW AFI 91-105, *Critical Components*. An aircraft safety wired and sealed with training seals is not a critical component.

9.4. The US load monitor must verify the seals before loading and unloading weapons.

9.5. If operational seals have been broken or tampered with, as a minimum:

9.5.1. Implement procedures to maintain control of the system until the situation is resolved.

9.5.2. The US Custodian will conduct an investigation IAW AFI 91-204, *Safety Investigations and Reports*.

9.5.3. Perform individual aircraft mission certification prior to use of the aircraft for nuclear operations.

9.5.4. Prescribe a course of action when an installed seal is accidentally broken during authorized operations.

9.6. The user-nation controls receipt, storage, issue, and disposal of dies (or unique identifying devices) and seals.

10. Personnel Reliability. Personnel that have physical access to nuclear weapons must be qualified under a personnel reliability program. DoD Directive 5210.42, *Nuclear Weapon Personnel Reliability Program (PRP)*, and AFI 36-2104, *Nuclear Weapons Personnel Reliability Program*, apply to US personnel. Host nations will implement equivalent personnel reliability programs.

11. Nuclear Identification. Ensure test and training shapes can be distinguished from nuclear weapons.

12. Weapons Custody. US custodial agents maintain custody of nuclear weapons unless custody is transferred to user nations as a result of an authenticated execution message. Reestablish US custody if weapons are not employed.

13. Airspace Restrictions. Implement local procedures within that airspace controlled by the base to:

13.1. Prohibit overflight of weapons movements, nuclear loaded aircraft, and aircraft shelters with nuclear weapons inside and not secured in a locked weapons storage vault.

13.2. Prohibit direct overflight of prime nuclear airlift force aircraft operations.

14. Basic Aircraft Configurations. Place aircraft in the following configurations once all preload functions are complete prior to loading nuclear weapons.

14.1. F-15E:

14.1.1. Nuclear consent switches in the SAFE position.

14.1.2. Nuclear consent switch guards down, safety wired, and sealed.

14.1.3. Master arm switch in the SAFE position.

14.1.4. Ensure impulse cartridges are not installed in the wing or centerline pylon breaches when nuclear weapons will be loaded on those stations.

14.2. F-16A/B/C/D(forward cockpit):

14.2.1. Nuclear consent switch in the OFF position.

14.2.2. Nuclear consent switch guard down, safety wired, and sealed.

14.2.3. Master arm switch in the OFF position.

14.3. PA-200:

14.3.1. Control Arm of the Special Weapons Controller (SWC-2) Panel in the OMS (OFF-MONITOR-SAFE)position, safety wired, and sealed.

14.3.2. Bomb Release Safety Lock/Unlock switch in the LOCK position with switch guard down, safety wired, and sealed.

14.3.3. Consent/Off switch in OFF position.

14.3.4. Master arm safety switch (MASS) in the LOCK/SAFE position.

15. Storage, Maintenance, Testing, Loading, and Unloading:

15.1. Store nuclear weapons in US Air Force-approved, locked, and secured facilities.

15.2. Use applicable technical data to verify weapon condition prior to handling.

15.3. Load nuclear weapons only on aircraft certified mission capable for the mission to be performed.

15.4. Allow only US personnel to maintain nuclear weapons.

15.5. Perform nuclear weapon maintenance only in a protective aircraft shelter (PAS).

15.6. Major nuclear weapon maintenance in a PAS must be performed using a lightning protection system (LPS) modified weapons maintenance truck (WMT). (Major maintenance is defined as any activity in which any of the four major sub-assemblies are separated.)

15.6.1. Prior to initiating unlock procedures to raise the weapons storage vault (WSV) or otherwise introducing a nuclear weapon to the PAS for major maintenance, remove all conventional munitions and aircraft from the PAS.

15.6.2. For operations in an LPS modified WMT, use the guidelines in T.O. 11N-50-1007. Due to the Faraday shielding provided by the WMT, maintenance operations may be conducted irrespective of lightning occurrence or probability of occurrence.

16. Movement of Nuclear Weapons. Movement(s) will be kept to a minimum consistent with operational requirements.

16.1. AFI 91-115, *Safety Rules for Nuclear Logistics Transport by the Prime Nuclear Airlift Force* applies. Additionally, the following safety guidance applies:

16.1.1. The aircrew performs or controls all loading, tie down, and unloading operations.

16.1.2. The aircrew performs or controls all maintenance activities on a nuclear cargo-loaded aircraft and en route maintenance on a nuclear logistics mission aircraft.

17. Operations in a PAS with a Weapon Storage Vault. Maximize the use of the WSV surety features by keeping the nuclear weapon-loaded WSV down and locked unless the specific operation being performed requires vault access.

17.1. Simultaneous presence of conventional munitions and nuclear weapons (exposed or with the vault NOT fully down) is prohibited except during nuclear generations, subsequent alert operations, command disablement operations, or CJCS-directed Stockpile Emergency Verifications (SEV).

17.2. Simultaneous presence of conventional munitions and nuclear weapons (exposed or with vault NOT fully down) during practice generations, practice alerts, exercises, or evaluations is prohibited. Self-defense munitions loaded on aircraft and one additional load of air-to-air missiles, chaff, and flares, and an aircraft gun loading system, which may contain multiple loads, are permitted.

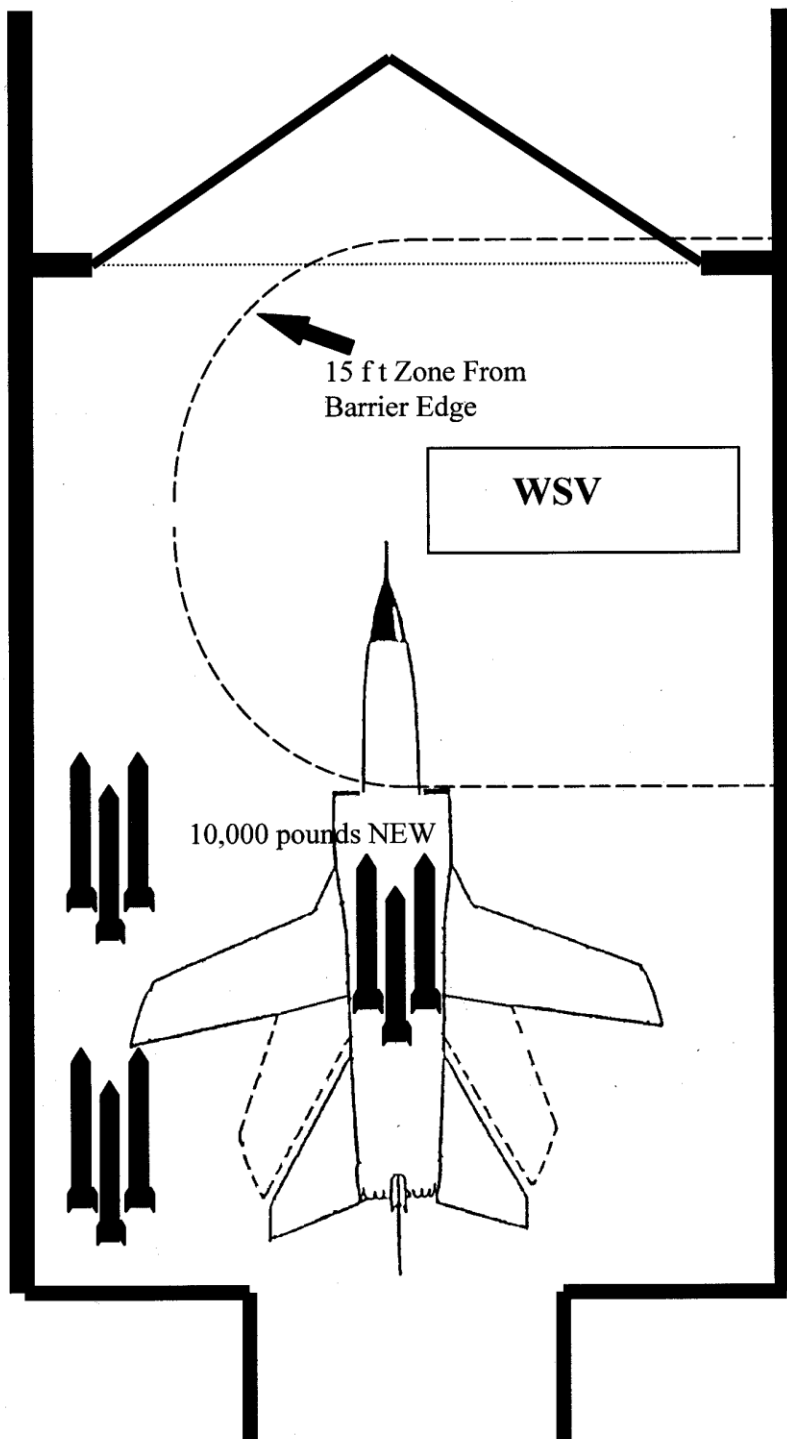
17.3. Authorized operations involving both nuclear weapons and conventional munitions in a PAS with WSV (i.e., nuclear generation, subsequent alert operations, command disablement operations, and CJCS-directed SEV) always require MAJCOM-approved plans.

The appropriate host/US wing commander must authorize each operation prior to start. Self-defense munitions as described above do not require a plan.

17.4. Only aircraft NOT loaded with live munitions (except for captive air-to-air missiles, chaff, flares, and aircraft target practice gun ammunition) and associated ground support equipment can remain in the PAS while performing maintenance on the WSV, or minor weapons maintenance in the WSV, provided all other activities within the PAS are terminated.

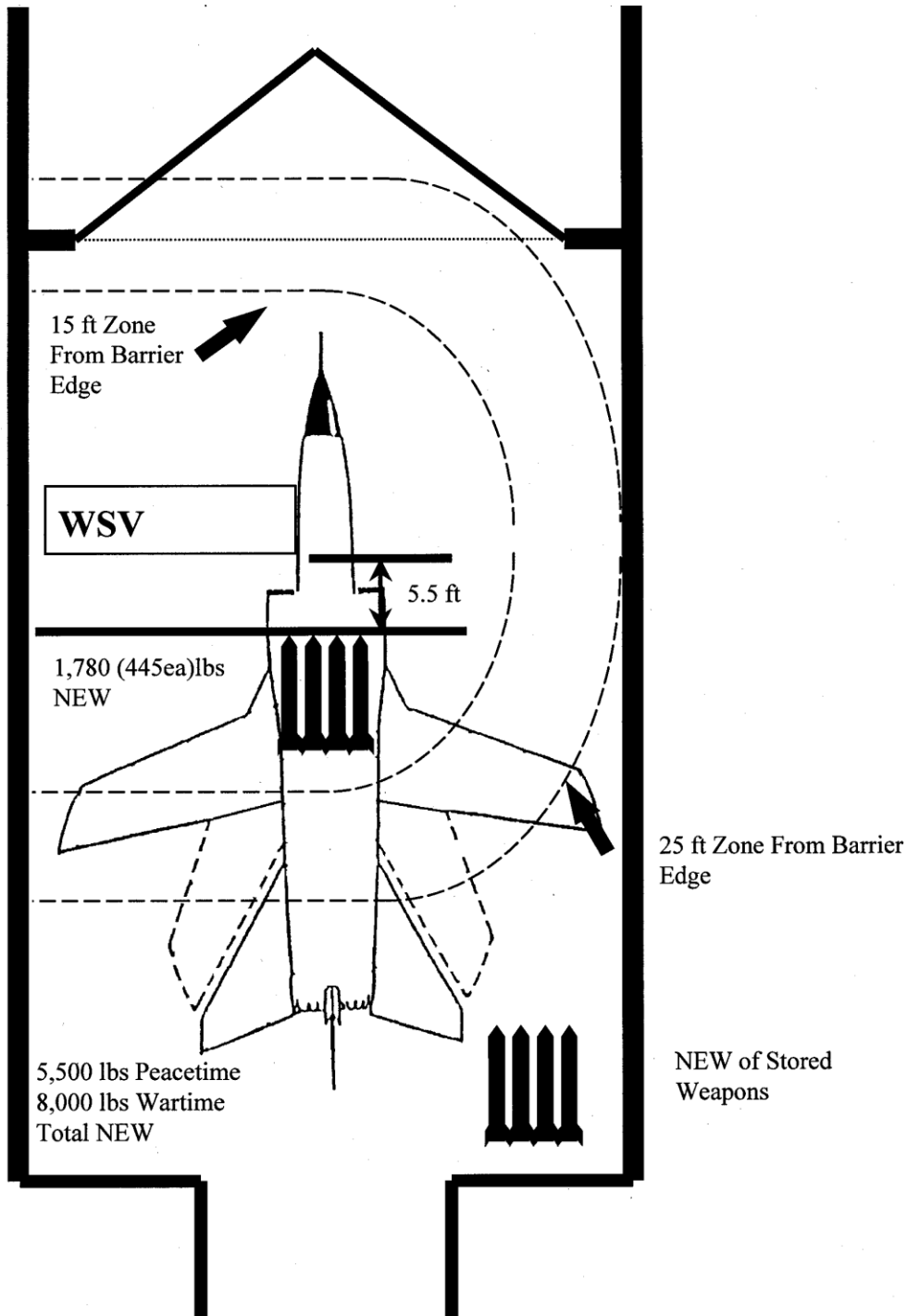
17.5. In a PAS with nuclear weapon-loaded WSV, conventional munitions may NOT exceed 10,000 pounds net explosive weight (NEW).

17.6. Conventional munitions (except for air-to-air missiles) must be positioned no closer than 15 feet from the WSV (Figure 1). Do NOT position forward firing munitions in storage with the nose or exhaust pointed directly at an opened nuclear weapon-loaded WSV. Air-to-air missiles, chaff, flares, and aircraft gun ammunition loaded in preparation for strike are authorized as long as they are electrically and mechanically safed, as applicable. In addition, hazard class 1.4 training munitions, chaff and flares, loaded and safed, on aircraft may be stored within 15 feet of a closed and locked WSV to accommodate parking 2 aircraft in a 3rd generation PAS.

Figure 1. Placement of Munitions 15 Feet from WSV

17.6.1. If the placement of the WSV, the physical dimensions of the PAS, and the size of a single aircraft (for example, PA-200 in 1st generation PAS) cannot have bombs loaded and meet the 15-foot restriction from the WSV, then the following additional restrictions apply when loading conventional bombs in the PAS (Figure 2):

Figure 2. Placement of Munitions When 15-Foot Restriction Cannot Be Met.



17.6.1.1. Park aircraft as far from the WSV as practical.

17.6.1.2. No conventional weapon in the PAS (on- or off-aircraft) may exceed 445 pounds NEW each.

17.6.1.3. Total NEW in the PAS will not exceed 5,500 pounds.

17.6.1.3.1. During combat contingency operations, increased hostilities or wartime operations, the host unit commander may authorize an increase in the total NEW, not to exceed 8,000 pounds.

17.6.1.4. All conventional munitions NOT loaded on the aircraft will be at least 25 feet from the WSV.

17.6.1.5. Do NOT exceed 445 pounds NEW per aircraft weapon station.

17.6.1.6. Do NOT exceed 4 aircraft-loaded bombs within 15 feet of the WSV. No aircraft-loaded bomb may be closer to the WSV than 5.5 feet.

17.6.2. The preceding restrictions do not limit towing or taxi operations of aircraft loaded with conventional munitions into or out of a PAS containing a WSV.

17.7. Do not conduct open fuel cell maintenance operations in a PAS containing a nuclear weapon-loaded WSV.

17.8. Perform normal day-to-day aircraft maintenance operations only when the WSV is down and locked.

17.9. Unlock the WSV only after complying with the appropriate security measures.

17.10. Before raising a nuclear weapon-loaded WSV to perform nuclear generation actions:

17.10.1. Have qualified personnel verify that all conventional munitions are electrically and mechanically safed, as applicable.

17.10.2. Fuel the mission-capable aircraft and prepare it for loading, as required.

17.10.3. Cease aircraft maintenance operations.

17.11. When performing CJCS-directed SEV in a PAS where conventional munitions are present, the WSV will be unlocked and opened only long enough to record the required nuclear weapon data.

17.11.1. Prior to initiating unlock procedures to raise the WSV:

17.11.1.1. Have qualified personnel verify all conventional munitions in the PAS are electrically and mechanically safed, as applicable.

17.11.1.2. Ensure aircraft is properly grounded.

17.11.1.3. Ensure the nose or exhaust of forward firing munitions in storage will not point directly at an opened nuclear weapon-loaded WSV.

17.11.1.4. Cease all other operations within the PAS.

17.11.2. Allow only personnel required to perform the SEV to remain in the PAS.

17.12. When a nuclear weapon-loaded WSV is NOT down, the following restrictions apply:

17.12.1. Do NOT move aircraft into or out of the PAS.

17.12.2. Move only mission essential equipment into or out of the PAS.

17.12.3. Do NOT perform engine runs, fueling, or liquid oxygen servicing operations.

17.12.4. Do NOT perform conventional integrated combat turnaround procedures.

17.12.5. Perform only those operations approved by the applicable US Air Force Commander in accordance with appropriate directives and technical data.

17.13. If fuel, liquid oxygen, hydrazine, or similar hazardous substance release within the PAS is deemed an emergency and poses a threat to the nuclear weapons, return the nuclear weapon-loaded WSV to a fully down position, if possible, until the emergency is terminated by proper authority.

17.14. The WSV need NOT be locked when it is placed in the down position between phases of an operation (e.g. maintenance, generation exercises).

17.15. When a nuclear weapon-loaded aircraft is in a PAS conduct:

17.15.1. Engine runs only when necessary to check aircraft status, perform maintenance, or prepare for authorized flying operations.

17.15.2. Fueling operations only when necessary to maintain the aircraft for its mission requirements.

17.15.3. All other operations only as approved by the applicable US Air Force Commander in accordance with appropriate directives and technical data.

18. Operations in a PAS without a Weapon Storage Vault. Simultaneous presence of conventional munitions and nuclear weapons is prohibited except during nuclear generations and subsequent alert operations.

18.1. Simultaneous presence of conventional munitions and nuclear weapons during practice generations, practice alerts, exercises, or evaluations is prohibited. Self-defense munitions loaded on aircraft and one additional load of air-to-air missiles, chaff, and flares, and an aircraft gun loading system, which may contain multiple loads, are permitted.

18.2. Authorized operations involving both nuclear weapons and conventional munitions in a PAS without WSV (i.e., nuclear generation and subsequent alert operations) always require MAJCOM-approved plans. The appropriate host/US wing commander must authorize each operation prior to start. Self-defense munitions as described above do not require a plan.

18.3. Before introducing nuclear weapons into a PAS to load onto an aircraft for generation and subsequent alert operations:

18.3.1. Have qualified personnel verify that conventional munitions, if present, are safed.

18.3.2. Fuel the mission-capable aircraft and prepare it for loading, as required.

18.3.3. Cease aircraft maintenance operations.

18.3.4. Ensure the net explosive weight of conventional munitions inside the PAS is minimized.

18.4. When a nuclear weapon-loaded aircraft is in a PAS:

18.4.1. Conduct engine runs only when necessary to check aircraft status, perform maintenance, and prepare for authorized flying operations.

18.4.2. Conduct fueling operations only when necessary to maintain the aircraft for its mission requirements.

18.4.3. Conduct all other operations only as approved by the applicable US Air Force Commander in accordance with appropriate directives and technical data.

18.5. Remove all conventional munitions and aircraft from the PAS before performing any major maintenance on nuclear weapons inside a PAS.

19. Operations outside a PAS.

19.1. Limit aircraft operations outside a PAS to the exercising or execution of approved operational plans.

19.2. For operations outside the PAS, simultaneous presence of conventional munitions and nuclear weapons is prohibited. However, self-defense munitions loaded on the aircraft are permitted. Additional stores are prohibited.

19.3. When conducting operations outside a PAS, the explosives environment must support intermagazine criteria (K-11) from any potential explosive site (PES), for the aircraft to be nuclear loaded.

19.4. Before conducting nuclear weapons loading operations for generation outside a PAS:

19.4.1. Have qualified personnel verify that self-defense munitions are safed.

19.4.2. Fuel the mission-capable aircraft and prepare it for loading, as required.

19.4.3. Cease any other aircraft maintenance operations on that aircraft.

19.5. When an aircraft is nuclear weapon-loaded

19.5.1. Conduct fueling operations only when necessary to maintain the aircraft for its mission requirements.

19.5.2. Conduct all other operations only as approved by the applicable US Air Force Commander IAW appropriate directives and technical data.

20. Ground Operations Involving Nuclear Weapon-Loaded Aircraft:

20.1. Apply power to a loaded nuclear weapon only for authorized PAL operations or to monitor the weapon. Keep power applications to a minimum.

20.2. Apply power to a nuclear weapon-loaded aircraft only to:

20.2.1. Perform authorized maintenance

20.2.2. Perform authorized preflight operations

20.2.3. Start the engine or engines

20.2.4. Warm up equipment

20.2.5. Monitor the radio

20.2.6. Perform authorized PAL operations

20.3. Keep aircraft towing to a minimum.

20.3.1. A qualified and authorized individual must be in the cockpit during towing.

20.3.2. Have a TPC team verify the basic aircraft configuration following towing operation.

20.4. Engine Run up.

20.4.1. Allow only authorized aircrews to perform engine run up.

20.4.2. Use a physical barrier to prevent an unauthorized takeoff during engine run up.

20.4.3. Have a TPC team verify the basic aircraft configuration following engine run up.

20.5. Run the engine or engines only if necessary to:

20.5.1. Check aircraft status

20.5.2. Perform maintenance

20.5.3. Prepare for authorized flying operations

20.5.4. Conduct practice alerts, exercises, evaluations or inspections (except as restricted when conventional munitions other than air-to-air missiles, chaff, flares and aircraft gun ammunition, are in a PAS with nuclear weapons or when a nuclear weapon-loaded WSV is not fully down).

20.6. Do not move a nuclear weapon-loaded aircraft under its own power unless:

20.6.1. Authorized by an authenticated message

20.6.2. Necessary to preserve the safety of the weapon system

20.7. Fuel the aircraft only to maintain its mission requirements.

21. Flying Operations Involving Carriage of Nuclear Weapons in a Non-strike Configuration.

21.1. Do NOT fly in a non-strike configuration unless authorized by US National Command Authority. If authorized:

21.1.1. Verify PAL is locked prior to loading the nuclear weapon.

21.1.2. Put aircraft in its basic configuration (paragraph 11).

21.1.3. Do NOT make mechanical and electrical pullout connections between the weapons and the aircraft.

21.1.4. Plan flight routes to avoid populated areas to the maximum extent possible.

21.1.5. Lift switch guards, break safety wires and operate locking and release system controls using approved checklists when weapon jettison is authorized.

22. Jettison Procedures. Jettisoning of nuclear weapons is permitted in the event of an emergency, and is to be accomplished according to plans and procedures prescribed for the area of operations.

22.1. If loss of the aircraft is anticipated or weapon jettison becomes necessary, safe the weapon, if time and conditions permit.

23. PAL Procedures. Use PAL codes and equipment only as directed by appropriate authority.

23.1. Re-lock (disable) PAL if a strike mission is aborted or terminated.

24. Command Disable (CD) Procedures. Use CD codes and equipment only as directed by appropriate authority. When performing a command disablement system (CDS) operation in a PAS, the WSV will be unlocked and opened only long enough to perform the CDS operation.

FREDERICK F. ROGGERO, Major General,
USAF
Chief of Safety

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DoD Directive 3150.2, *DoD Nuclear Weapon System Safety Program*, 23 Dec 96

DoD Directive 3150.2M, *DoD Nuclear Weapons System Safety Program Manual*, Dec 96

DoD Directive S-5210.41M, *Nuclear Weapon Security Manual (U)*, 1 Feb 07

DoD Directive 5210.42-R, *Nuclear Weapon Personnel Reliability Program*, 8 Jan 01

AFI 31-101, *The Air Force Installation Security Program*, 1 Mar 03

AFMAN 10-3902 *Nuclear Weapons Personnel Reliability Program* 13 Nov 06

AFPD 13-5, *Air Force Nuclear Enterprise*, 6 July 2011

AFPD 91-1, *Nuclear Weapons and Systems Surety*, 13 Feb 07

AFI 91-101, *Air Force Nuclear Weapons Surety Program*, 19 Dec 05

AFI 91-102 *Nuclear Weapon System Safety Studies, Operational Safety Reviews, and Safety Rules*, 28 Jul 04

AFI 91-104 *Nuclear Surety Tamper Control and Detection Program*, 28 Feb 06

AFI 91-105 *Critical Components*, 10 Dec 93

AFI 91-115, *Safety Rules for Nuclear Logistics Transport By the Prime Nuclear Airlift Force* 8 Sept 09

AFI 91-204, 24 Sep 08, *Safety Investigations and Reports*, 24 Sep 08

AFI 33-364 *Records Disposition—Procedures and Responsibilities*, 22 December 2006

USEUCOM Instruction 6801.01, 31 Oct 08, *Nuclear Surety Management for the Weapons Storage and Security System*

Allied Command Operation (ACO) Directive 80-6 Volume 2, Part II/USEUCOM Directive 60-12, *Nuclear Surety Management for the Weapon Storage and Security System (WS3)* Dec 06

Abbreviations and Acronyms

AFSC—Air Force Safety Center

ACO—Allied Command Operation

AMAC—Aircraft Monitoring and Control

APU—Auxiliary Power Unit

CD—Command Disable

CJCS—Chairman Joint Chiefs of Staff

DoD—Department of Defense

DOE—Department of Energy

EUCOM—European Command

FTS—Fuel Truck Shelter

JCS—Joint Chiefs of Staff

MAJCOM—Major Command

MUNSS—Munitions Support Squadron

NATO—North Atlantic Treaty Organization

NEW—Net Explosive Weight

OMS—Off-Monitor-Safe

PAL—Permissive Action Link

PAS—Protective Aircraft Shelter

PRP—Personnel Reliability Program

SACEUR—Supreme Allied Command, Europe

SEV—Stockpile Emergency Verification

SHAPE—Supreme Headquarters Allied Powers Europe

SMS—Stores Management System

SWC—2 – Special Weapons Controller

USAFE—United States Air Forces Europe

USCINCEUR—United States Commander in Chief, Europe

WMT—Weapons Maintenance Truck

WSV—Weapons Storage Vault

WS3—Weapons Storage and Security System