

**BY ORDER OF THE COMMANDER
AIR FORCE MATERIEL COMMAND**



AIR FORCE INSTRUCTION 21-204

**AIR FORCE MATERIEL COMMAND
Supplement 1**

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Maintenance

NUCLEAR WEAPONS PROCEDURES

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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AFI 21-204, 16 September 2003, is supplemented as follows:

This supplement implements AFD 21-2, *General Policy for Nonnuclear and Nuclear Munitions*, and expands on AFI 21-204, *Nuclear Weapons Procedures*. It establishes policies and procedures within Air Force Materiel Command for safe and efficient nuclear operations. This supplement applies to all AFMC organizations responsible for storing, maintaining, handling, loading, and accounting for nuclear weapons, nuclear components, or nuclear weapons support equipment to include training devices. Send comments and suggestions for improvements through channels to HQ AFMC/LGMW, 4375 Chidlaw Rd, Room S-138, Wright-Patterson AFB OH 45433-5006. This supplement does not apply to the Air National Guard or US Air Force Reserve units and members.

SUMMARY OF REVISIONS

This document is substantially revised and must be completely reviewed.

1.3.4.1.1. HQ AFMC/LGMW is the principal AFMC member to the AFMMAG. AAC/NW will represent the Command on single manager related nuclear issues and on those MAJCOM matters where its Nuclear Weapons Directorate (NWD) interface responsibilities within the technical nuclear community would dictate.

1.3.4.1.2. HQ AFMC/LGMW is the AFMC Nuclear Munitions Maintenance Functional Manager (FM) for the 2W2, 2MO, and 21M career fields.

1.3.4.1.3. HQ AFMC/LGMW, in conjunction with AAC/NWL, will develop and manage a Nuclear Staff Assistance Visit (NSAV) Program for nuclear capable units. HQ AFMC/LGMW will appoint the team chief and will coordinate the selection of all team members. Team composition for NSAVs is normally 10-15 personnel. HQ AFMC/LG is responsible for providing funding for NSAVs.

1.3.4.1.4. AAC/NWL will provide nuclear munitions maintenance technical expertise in development of command checklists for AFMC.

1.3.4.1.5. AAC/NWL will approve all nuclear weapon movements originating within AFMC, including weapons shipped within 6 months of their LLC due dates.

1.3.4.1.6. AAC/NWL will determine AFMC SDT requirements and submit in accordance with Para. 1.3.4.4.2.9 of basic instruction.

1.3.4.1.7. AAC/NWL will perform MAJCOM functions as the technical point of contact for AFMC regarding nuclear weapons maintenance, storage, and accountability, and will keep HQ AFMC/LGMW informed of all pertinent actions.

1.3.4.1.8. AAC/NWL will perform MAJCOM functions as focal point for AFMC regarding DOE designed military spares, support/handling equipment, and accountability, and will keep AFMC/LGMW informed of all pertinent actions.

1.3.4.1.10. HQ AFMC/LGMW will publish the Maintenance Capability Letter (MCL). Coordinate the MCL with HQ AFMC/IGI/CEO/SEW, AAC/NWL, and 377 MXG/CC. The MCL will list the required maintenance capabilities for each weapon type by location and include provisions for personnel qualification and certification requirements, storage capabilities, and support agreements.

1.3.4.4. HQ AFMC/LGMW's principal staff role, in addition to policy development, involves MAJCOM munitions functional manager responsibilities in process improvement programs, staff assistance, manning, professional development, training, budget and funding support, and corporate advocacy for organizational and infrastructure needs. AAC/NW will function as the AFMC lead in traditional combatant MAJCOM roles of stockpile management, technical representation in joint forums, and field level logistics support, to include maintenance, accountability, storage, transportation and retirement activities. Additionally, AAC/NW will participate, in coordination with HQ AFMC/LGMW, in MAJCOM personnel certification and curriculum development, staff assistance, and policy development activities.

1.4.2.14. (Added) Designate Quality Assurance (QA) personnel.

1.5.2.1. AAC/NWL will be the focal point to the combatant MAJCOMs concerning maintenance of their weapons at AFMC storage locations and determination of the best AFMC storage location for active and inactive reserve weapons. AAC/NWL will perform these actions in coordination with 377 ABW/MX and LGMW.

1.5.2.2. AAC/NWL will perform MAJCOM functions for AFMC regarding maintenance management of retired, JCS reserve, and inactive weapon stockpile in Air Force custody, and will keep AFMC/LGMW informed of all pertinent actions.

1.5.3. AAC/NWL will handle AFMC-generated maintenance and storage waiver requests internally.

2.2.2.3. In addition to agencies listed, maintain direct telephone lines to the Weapons Storage Area Entry Control Point. For the Kirtland Underground Munitions Maintenance Storage Complex (KUMMSC), the telephone requirement may be met by an intercom system.

2.4.3. In addition to items listed, develop maintain, and use emergency action checksheet for stockpile emergency verification. Each munitions controller must be familiar with the content and use of all check-sheets maintained.

2.6.2. Initiate an AFMC Form 182, **MUNS Workorder (Attachment 4 (Added))**, for all scheduled and unscheduled maintenance, storage, inspection, movement, handling, or use control (UC) operations.

2.6.5. As a minimum, develop a monthly maintenance schedule. The monthly schedule is approved by Maintenance Supervision and in addition to items listed will include:

2.6.5.2. Maintenance actions also include movements, rewarehousing requirements, and periodic inspections.

2.6.5.5. (Added) Use Control operations.

2.6.9. (Added) Upon receipt of a TCTO requiring action, establish and maintain a TCTO case file consisting of the following:

2.6.9.1. (Added) A copy of the TCTO.

2.6.9.2. (Added) Copies of the supply documents when kits, related tools, or equipment needed to complete the TCTO were ordered.

2.6.9.3. (Added) Copies of workorders if the TCTO was placed in the awaiting maintenance (AWM) file.

2.6.9.4. (Added) A copy of the most current TCTO kit status report.

2.6.9.5. (Added) Copies of incoming or outgoing correspondence relevant to the TCTO.

3.1.7. (Added) At the Commander's discretion, the weapon safety manager (WSM) roles and responsibilities may be assigned to or collocated with the quality assurance section. WSM roles and responsibilities are contained in AFMAN 91-201, *Explosives Safety Standards*.

3.2.4. (Added) Establish procedures for completing and routing (or reverse routing) reports.

3.3.1.12. (Added) Training records

3.3.2. Personnel evaluations (PE) are over the shoulder evaluations of maintenance actions or inspections performed by a technician or supervisor on a weapon, weapon system, component, or equipment. A PE evaluates an individual's job proficiency, degree of training, and compliance with technical data. Individuals who perform, supervise, or evaluate maintenance tasks are subject to PEs. There are three categories of personnel evaluations.

- Task evaluation (TE) is an over the shoulder evaluation of a maintenance technician or supervisor during actual job performance.

- A completed maintenance action or inspection (CMA or CMI) is an after the fact evaluation of a completed maintenance and/or inspection action. Ensure the action is documented on applicable maintenance forms and/or historical records prior to beginning the evaluation.

-An evaluator proficiency evaluation (EPE) is an over the shoulder evaluation of a quality assurance inspector performing a personnel evaluation of technical inspection.

NOTE: As a minimum, perform TEs on 25% of the monthly scheduled maintenance or operations listed in paragraphs 3.3.2.1. through **3.3.2.11. (Added)**. Each person that is task certified will receive at least one TE annually.

3.3.2.11. (Added) Test and handling equipment functionals, operations, and tests.

3.3.4. (Added) Other inspections:

3.3.4.1. (Added) Follow-up inspections. Inspections conducted after QA rates an area as unsatisfactory. The follow-up is a reinspection of the area by QA within 30 days of the unsatisfactory rating. These inspections verify the adequacy of corrective actions. The Commander may direct QA to perform follow-up inspections of areas rated unsatisfactory by other agencies.

3.3.4.2. (Added) Surveillance inspections. Inspections conducted by QA personnel in addition to required evaluations and inspections. Surveillance inspections should be non-rated.

3.4.1. AAC/NWL will perform MAJCOM functions for AFMC regarding identification of additional certifiable tasks, and provide info copy to HQ AFMC/LGMW.

3.4.2.3.6. (Added) If certification is no longer required.

4.1.1.1. (Added) All weapons will be maintained in a Preparation for Storage, Out-of-Container/Package Storage, or Alternate Container Storage Configuration, unless otherwise directed by AAC/NWL. Ensure final Preparation for Shipment actions and respective IRC entries are accomplished prior to shipment.

4.1.1.2. (Added) Submit requests to AAC/NWL for deviations to standard storage configurations with an information copy to HQ AFMC/LGMW. As standard containers become available, assets in alternate containers or out-of-pack storage will be placed in standard storage configurations. Containers may remain empty (up to one storage igloo/cell equivalent, not to exceed 25 per type) for use in emergency rewarehousing, shipment support, etc.

4.1.6. If authorized procedures are not provided or do not adequately address the problem, MUNS units may coordinate directly with the Nuclear Weapons Directorate ACC/NWL. Direct contact between MUNS units and other agencies (e.g., Defense Threat Reduction Agency, (DTRA) or Sandia National Laboratories (SNL) for any technical resolution is prohibited unless coordinated through NWD. The initiator will immediately follow-up any technical resolution or maintenance assistance queries with official message traffic or correspondence, infoing HQ AFMC/LGMW.

4.1.9. AAC/NWL will perform MAJCOM functions for AFMC regarding waiver of the 6-month Limited Life Component (LLC) life remaining criteria for shipment of weapons or warheads.

4.1.11. The individual performing the visual must be a JQS task qualified E-5 (or above) or a Team Chief (task) certified E-4.

4.1.18. Type 3A/B/C trainers are authorized for Transfer and Transport training and certification.

4.1.20. For shipments scheduled to arrive or depart during the hours of darkness or for a SAFE HAVEN operation, approval for night movement is not required.

4.1.23. HQ AFMC/LGMW will coordinate with HQ AFMC/SEW to approve any LME requests.

4.1.24. (Added) Whenever a warhead is removed from its container, the warhead surfaces will be inspected for defects IAW the applicable technical manuals. Do not perform further disassembly of the weapons for inspection purposes unless damage is suspected or found which necessitates further disassembly.

4.4. (Added) **Permissive Action Link (PAL) Management Team (PMT)**. The squadron commander identifies PMT members in writing. PMT members will be identified as either an "A" or "B" team member. A single individual must never know or be given access to, both "A" and "B" code halves. Send copies of the PMT designation letter to AAC/NWL, 1551 Wyoming Blvd SE, Kirtland AFB, NM 87117-5617. Submit new letters as changes occur.

4.4.1. (Added) The PMT is composed of personnel who meet the requirements of T.O. 11N-50-2, *Procedures for the Use and Control of Logistics and Depot Storage Codes for Permissive Action Link (PAL) Equipped Weapons*, and AFI 21-205, *Command Disablement Systems (CDS)*. The PMT leader is designated as the PAL Manager and ensures procedures in CJCSI 3260.01, AFI 21-205, T.O. 11N-50-2, and T.O. 11N-50-4, *Verifiable Control Procedures (VCP)*, are strictly followed. The PAL Manager should be an E-7 or greater with at least two years PAL experience.

4.4.2. (Added) The PAL Manager will develop a comprehensive PAL training lesson plan. The PAL Manager is responsible for ensuring all PMT members are initially trained and qualified prior to allowing access to active or reserve code data or performing any coding action on WR assets. PMT members will receive semiannual training thereafter.

4.4.2.1. (Added) The PAL Manager will maintain all training documentation.

4.4.2.2. (Added) Qualifications will be documented on an AF Form 1098, **Special Certification and Recurring Training**.

4.4.2.3. (Added) Use training codes and/or files to train and qualify PMT members.

4.4.2.4. (Added) Qualification will be listed by specific equipment type.

4.4.2.5. (Added) PMT members will perform proficiency coding operations at least semiannually. Performance of WR PAL operations may fulfill this requirement. The proficiency operation will be documented.

4.4.3. (Added) The Two-Person Control (TPC) PAL material will be kept in sealed envelopes marked "TWO-PERSON CONTROL REQUIRED", the appropriate security classification, and the appropriate "A" or "B" designation. Opening TPC envelopes requires two "A" or two "B" personnel to be present. The "A" and "B" team members opening the TPC safe will be responsible for ensuring access is restricted to authorized PMT members and the required inventories are accomplished.

4.4.4. (Added) When coding assets for storage the PMT:

4.4.4.1. (Added) Will follow the logistics shipment code identification procedure described in T.O. 11N-50-2, using their storage codes vs. the shipment codes.

4.4.4.2. (Added) Will not use nor employ TPC information outside the parameters of that provided by NSA through disk, file, or envelope. This prohibition does not apply to personal file information.

4.4.5. (Added) For weapons containing an Active Protection System (APS), PMT will turn the APS "OFF" no earlier than 5 duty days before the scheduled operation. The APS will be turned "ON" by the end of the week operation(s) were performed. When weapon "ON" operation is prohibited, report through UR channels. Upon receipt of the UR response allowing the "ON" operation, will be performed within 5 duty days. Submit timeline waiver requests to AAC/NWL.

4.4.6. (Added) When using the T1563 for PAL operations, operators will perform the "F2" review operations option when the prompt "NNNNNN PRECHECK" and "NNNNNN POSTCHECK" appears.

4.4.7. (Added) When the shipping activity cannot comply with the shipping time restrictions outlined in T.O. 11N-50-2, section 2, submit waiver requests to AAC/NWL.

5.3.1.2. Will establish written procedures to maintain new LLC/Group X kits, gas generators, parachutes, etc separate from OCONUS returns. OCONUS returns will not be placed back into the supply system without specific written authority from NWD, (AAC/NWLO).

5.3.1.6. (Added) Spares support for retired weapon systems (non-enduring stockpile). The Munitions Operations branch will develop local procedures to control and manage spares authorized specifically for retired weapon systems.

5.3.1.7. (Added) Non-enduring stockpile spares will be stored separately from other authorized spares. Maintain an audit trail until the weapon system is no longer in AF custody. Request disposition for any remaining spares from NWD, AAC/NWLO.

5.3.2.5. As a minimum, walk through checks will be conducted monthly.

6.1.11. Lock bodies may be stored separately from cylinders and keys provided they are afforded environmental protection and inspected prior to reassociation with cylinders and placed in use.

6.1.15. (Added) Cell unlock devices (CUD) do not control access to a two-person area. CUDs do not fall under the high security key and lock management program. CUDs will be secured within Munitions Control.

7.2. **General.** The Advanced Entry Control System (AECS) is equivalent to a WSAAL for KUMMSC. A separate letter will be maintained to authorize personnel to serve as Sole Vouching Authority (SVA).

9.3. **Accountable Systems.** Due to the use of automated systems, manual inventory procedures have not been developed. If automated systems become non-operational or manual inventory procedures are required, contact AAC/NWL. CAS activities also use AFMAN 23-110, *USAF Supply Manual*, and AFI 21-201, *Management and Maintenance of Non-nuclear Munitions*.

9.5.1.1.1. Submit MASO qualification waiver requests to HQ AFMC/LGMW, with an information copy to AAC/NWL. The appointing authority must provide, for the individual being waived, full name, rank, AFSC, munitions experience, and Nuclear Munitions Officer Course completion date. State in the request the specific criteria to be waived. Provide names of other qualified individuals assigned to the munitions activity and reasons why they were not selected.

9.5.1.1.2. Submit MASO qualification waiver requests to HQ AFMC/LGMW, with an information copy to AAC/NWL. The appointing authority must provide, for the individual being waived, full name, rank, AFSC, munitions experience. State in the request the specific criteria to be waived. Provide names of other qualified individuals assigned to the munitions activity and reasons why they were not selected.

9.7.2.1. AAC/NWL will perform MAJCOM functions as the primary point of contact for AFMC regarding the management of nuclear accounts.

9.7.2.2. HQ AFMC/LGMW will coordinate with AAC/NWL to designate personnel to perform this function in conjunction with the NSAV at each location.

9.9. **Document Control.** Maintain separate files for manual, SWIM, SBSS, and CAS documents.

9.9.1. Units may assign off-base document numbers using the SRAN, Julian Date, and sequential document number by fiscal year.

9.10.2. AAC/NWL will perform MAJCOM function for AFMC regarding authorized levels for WR containers and bolsters.

9.10.4. AAC/NWL will perform MAJCOM function for AFMC regarding authorized levels for Base Spares.

9.10.4.1. Units will submit USAL requests to AAC/NWL. Units will reconcile their USAL against the KCP database NLT 30 days after a change approval.

- 9.10.4.2. AAC/NWL will coordinate requests for AFMC regarding changes to authorized levels.
- 9.11.2. AAC/NWL will handle disposition internally for AFMC regarding excess serviceable Military Spares.
- 9.11.5. AAC/NWL will handle disposition internally for AFMC regarding excess Limited Life Component, Group -X kits and Retrofits kits.
- 9.12.2.3. AAC/NWL will perform MAJCOM coordination for AFMC regarding delivery of Base Spares, Military Spares, and WR containers and bolsters.
- 9.13.1.1. Receipt and/or final verification inspections will be completed NLT the end of the following duty day.
- 9.13.1.2. AAC/NWL will perform MAJCOM function as primary point of contact for AFMC regarding discrepancies found during receipt.
- 9.13.2.1.2. AAC/NWL will perform MAJCOM function as primary point of contact for AFMC regarding DOE/NRC Form 741.
- 9.14.1.1. When shipments are delayed, make pen and ink changes to the shipping document to indicate the correct shipping date.
- 9.14.2. Organizations may use either the DD Form 1348-1 or the DD Form 1348-1A (See Table 9.3).
- 9.14.3.2.2. AAC/NWL will perform MAJCOM function as primary point of contact for AFMC regarding follow-up action for shipments.
- 9.19.1.1. Waiver requests will be submitted to AAC/NWL with a courtesy copy sent to HQ AFMC/LGMW.
- 9.19.1.3. Inventory documentation for a MASO change consists of blind inventory worksheets, AF Forms 85A, **Inventory Count Card**, and Certificate of Transfer of Accountability completed in accordance with Chapter 5, TO 11N-100-4, *Custody, Accountability, and Control of Nuclear Weapons and Nuclear Material*.
- 9.19.2.1. **Note:** Squadron commanders will request the appropriate commander, 0-6 or higher, to appoint the verifying officer. Organizations may request appointment of an additional disinterested officer as an audit officer. This appointment will be in the name of HQ AFMC/CC.
- 9.19.2.7. Corrected reports will be submitted to AAC/NWL, with copy provided to HQ AFMC/LGMW.
- 9.21.2. Appointing the audit officer. Squadron commanders request the appropriate commander, 0-6 or higher, to appoint the verifying officer. Organizations may request appointment of an additional disinterested officer as an audit officer. The appointment will be in the name of HQ AFMC/CC.

Table 9.7. (Added) Preparing DD Form 1348-1A, Single Line Item Release/Receipt Document for Spares.

Column/Block	Description	Entry
1-3	Doc Ident	SHP
4-7		Blank
23-24	Unit Issue	Self Explanatory
25-29	Quantity	Self Explanatory
45-50	Supplemental	Ship to SRAN
51-70		Blank
71	Condition	Condition Code of Item
72-80		Blank
1	Total Price	Blank
2	Ship From	SRAN and Address
3	Shipped To	Consignee address. If this will not fit, enter "SEE BLOCK 27"
4	Mark For	If necessary, enter ultimate consignee. If this will not fit, enter "SEE BLOCK 27"
5	Doc Date	Julian date document was created
6-11		Blank
12	Unit Weight	Weight of one package
13	Unit Cube	Size (cubic feet)
14-17		Blank
18	Type Container	Enter box, can, etc; as appropriate
19	Number Containers	Number of containers for entire document
20	Total Weight	Weight of all items included on document
21	Total Cube	Total size of all containers (cubic feet)
22-23		Blank
24	Document Number	Assigned from the off-base register
25	National Stock NO	Enter part number
26		Blank
27	Additional Date	Enter MRA (if assigned). Also include the DTRA UR number, if applicable.

11.7.2.2. AAC/NWL will perform MAJCOM functions for AFMC regarding discrepancies with the monthly Location Inventory Listing (LIL) reconciliation that cannot be resolved locally.

12.2.1.4. (Added) Provide Authority to Comply message to AFMC units for execution of actions (i.e. NOSS, MTO, charge code changes, etc).

12.2.2.1. AAC/NWL will perform MAJCOM functions for AFMC regarding the logistics movement schedule for nuclear cargo, and will keep AFMC/LGMW informed of all pertinent actions.

12.2.2.1.1. 898 MUNS KIRTLAND AFB NM// CCK//and 896 MUNS NELLIS AFB NV//CCK//

12.2.3.3. Units will immediately notify AAC/NWL with INFO to HQ AFMC/LGMW if they cannot comply with NOSS requirements.

12.2.3.4. Forward requests for movements to AAC/NWL and info HQ AFMC/LGMW.

12.2.3.7. (Added) If available, provide SAAM aircrews who remain overnight with a U-drive GOV. If a U-drive vehicle is not available, provide local transportation as required using the base taxi service.

13.2. **Alternate Processing Procedures.** AAC/NWL will perform MAJCOM function for AFMC as approval authority to revert to manual account procedures.

13.4. **Database Initialization.** AAC/NWL will perform MAJCOM function for AFMC as approval authority for database initialization when required.

13.5.1. AAC/NWL will perform MAJCOM function for AFMC as approval authority for database maintenance or manipulation when required.

13.6. **Correction of Erroneous Entries.** AAC/NWL will perform MAJCOM function for AFMC as point of contact for guidance on correcting erroneous database entries when required.

13.6.2. AAC/NWL will perform MAJCOM function for AFMC as point of contact for consultation when the abort, start-day-over approach is impractical.

13.6.2.7. Forward MAJCOM informational copy of the user feedback report on the software problem to AAC/NWL.

13.6.3. AAC/NWL will perform MAJCOM function for AFMC as point of contact for instructions.

13.8. **Assistance and Problem Reporting Procedures.** AAC/NWL will perform MAJCOM function for AFMC as point of contact for support in resolving difficulties with SWIM software.

Attachment 4 (Added)

AFMC FORM 182, MUNS WORKORDER (COMPUTER GENERATED)

Figure A4.1. (Added) AFMC Form 182

MAINTENANCE WORKORDER								PRIORITY		
1. JOB CONTROL NO.	2. WORKCENTER	3. LOCATION	4. I.D. NO/SERIAL NO.	5. DISCREPANCY/WORK DESCRIPTION						
6. REMARKS	A	B	C	D		E	F	G	H	
	TYPE MAINT	UNITS	DAY	HOUR		CREW SIZE	CAT LAB	CMD ACT	AFSC/EMPLOYEE NUMBER	
				START	STOP					
	1									
	2									
	3									
	4									
	5									
	6									
	7									
8										
7. CORRECTIVE ACTION										

AFMC FORM 182, 20011129 (IMT-V1)

PREVIOUS EDITION IS OBSOLETE

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