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Maintenance

**HANDLING, STORAGE AND
TRANSPORTATION OF IMPULSE
CARTRIDGES, PYROTECHNICS, AND
AMMUNITION**

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFDPO 21-1, *Managing Aerospace Equipment Maintenance*. It establishes local procedures for handling, storing and transporting impulse cartridges and applies to the 18th Wing at Kadena AB. It does not apply to the Marine Wing Liaison Kadena who follows guidance listed in NAVSEA OP-5. This publication does not apply to the Air National Guard or US Air Force Reserve.

SUMMARY OF REVISIONS

This publication of 18 WGI 21-143, substantially revises 18 WGI 21-143 dated 17 June 2002. It updates the handling, storage, and transportation of impulse cartridges. Additionally, this revision adds guidance for the 33d Aircraft Maintenance Unit in handling, storing, and transporting pyrotechnics and ammunition. New or revised material is indicated by a bar (|).

1. References. AFI 21-101, *Aerospace Equipment Maintenance Management*, AFI 31-209, *Air Force Resource Protection Program*, AFMAN 91-201, *Explosive Safety Standards*, and TOs 1F-15A-33-1-2, *Non-Nuclear Munitions Loading Procedures*, and 11A18-7-7, *Aircraft External Stores Jettison Impulse Carts*.

2. Responsibilities. Unit commanders and weapons supervisors will ensure compliance with this wing instruction and other applicable technical data.

3. Operating Locations. All weapons personnel will accomplish procedures in this wing instruction in approved aircraft parking areas or storage locations containing a current explosive facility license or explosive site plan.

4. Personnel Limits. Weapons personnel will ensure the following:

- 4.1. Strictly adhere to personnel limits posted on the explosive facilities license at each storage location.
- 4.2. Restrict the number of people riding in the vehicle when transporting munitions to the minimum necessary to accomplish required operations.
- 4.3. STOP all explosive operations when visitors are present. Visitors are non-essential personnel (not associated with explosives) with limited access.

5. Explosive Limits. Weapons personnel will ensure the following:

- 5.1. Ensure quantities and types of munitions stored will not exceed the limits prescribed by the current explosive facility license.
- 5.2. The quantity of impulse cartridges, pyrotechnics, and ammunition transported will be kept to the minimum necessary to perform the operation.

6. Training and Safety. Weapons supervisors will ensure the following:

- 6.1. Only personnel trained and qualified in explosive safety procedures performs munitions activities.
- 6.2. Munitions handling operations will only be authorized in a designated explosive area.
 - 6.2.1. Metal containers, pyrotechnics, and ammunition will not be tumbled, dragged, dropped, thrown or walked on. Exercise special precautions to avoid bumping primers of ammunition removed from shipping containers and those loaded into magazines.
 - 6.2.2. Ammunition rounds will not be transported in pockets of clothing or loose in vehicles.
- 6.3. Fire symbols are posted as required.
 - 6.3.1. Fire-fighting information is posted in a conspicuous location at each storage location.
 - 6.3.2. Fire extinguishers are positioned (as required by the explosive facility license) at each storage facility.
- 6.4. Vehicles are inspected for serviceability and ensure two portable 2A:10BC rated fire extinguishers are available.

7. Procedures. Weapons supervisors will ensure the following:

- 7.1. Key and lock control procedures meets the requirements of AFI 31-101, *Air Force Resource Protection Program*.
- 7.2. Each impulse cartridge is carefully inspected for serviceability prior to removing from the storage facility.
- 7.3. All procedures outlined in technical orders, checklists, instructions and local wing instructions are complied with during munitions handling activities.
- 7.4. Turn in all unserviceable impulse cartridges, pyrotechnics, and ammunition IAW AFMAN 91-201/PACAF Sup 1, *Explosives Safety Standards*.
 - 7.4.1. Unserviceable impulse cartridges will be marked with day/month/year discovered unserviceable.

7.5. Weapons Standardization (WS) personnel will coordinate with 44 AMU or 67 AMU Section Chief, or equivalent, prior to storing impulse cartridges from transient or TDY aircraft to ensure access to the storage facility. WS personnel, in coordination with 44 AMU or 67 AMU Weapons personnel will ensure authorized quantities of impulse cartridges are not exceeded. If the 44 AMU or 67 AMU cannot provide adequate storage capability, WS personnel will contact 18 MUNS personnel to store transient or TDY aircraft impulse cartridges.

8. Inventory Procedures.

8.1. Weapons expeditors will conduct a 100 percent inventory of impulse cartridges (stored and installed) immediately after the last flight of each flying day.

8.2. The munitions account custodian or weapons expeditor will conduct a 100 percent inventory and inspection of all impulse cartridges every Friday, or the last duty day of each week. In the 33 AMU, the munitions custodian will conduct a 100 percent inventory of all munitions stored in buildings 3534 (explosive locker) and 3539 (pyro shack) every Friday, or last duty day of each week.

8.2.1. Inspect cartridges for serviceability and segregate as appropriate.

8.2.2. Explosives in storage will be segregated according to type, lot number, and condition code. Different items will be stored in separate containers. Update munitions log with current quantities on-hand.

8.3. The weapons expeditor will maintain documentation of the weekly inventory and inspection of the munitions storage facility. Inventory and inspection documentation will include the following information as a minimum:

8.3.1. Type of impulse cartridges.

8.3.2. Total quantity of impulse cartridges currently maintained. Include the specific location(s) of all impulse cartridges.

8.3.3. Total quantity of serviceable and unserviceable impulse cartridges segregated by lot number and condition code.

8.3.4. The account custodian or weapons expeditor's signature and date of inventory and inspection.

9. Emergency Procedures.

9.1. Personnel involved in munitions handling activities will be thoroughly familiar with emergency procedures and knowledgeable on the use of fire extinguishers.

9.2. In the event of injury, personnel will take the following actions:

9.2.1. Notify the Maintenance Operations Center (MOC) by the most expedient means possible.

9.2.2. Administer first aid until assistance arrives.

9.3. In the event of fire, personnel will call 911 and give location and aircraft tail number (if applicable), or notify the MOC who in turn will notify the fire department.

9.3.1. Essential Personnel will take the following actions:

9.3.1.1. The on-scene commander, or senior ranking individual, determines who are essential emergency personnel and what distances they should maintain.

9.3.2. If munitions are not engulfed in flames, immediately attempt to fight the fire to prevent it from spreading and engulfing munitions.

9.3.3. Evacuate non-essential personnel as follows:

9.3.3.1. When explosives are not involved in fire, such as dropped munitions or partially armed munitions, clear the area initially to a distance of 300 feet (125 feet for simulators and smoke producing devices). After evaluation of the situation, the on-scene commander may adjust the withdrawal distance for non-essential personnel.

9.3.3.2. The on-scene authority will direct minimum withdrawal distances for type of explosives involved in fire.

10. Distribution. Each Aircraft Maintenance Unit will maintain a minimum of two copies of this wing instruction. Weapons Section Chiefs will post a copy of this wing instruction in each impulse cartridge storage facility and in each weapons expediter's vehicle.

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