

**BY ORDER OF THE COMMANDER  
TYNDALL AIR FORCE BASE**

**TYNDALL AIR FORCE BASE  
INSTRUCTION 21-462**



**9 APRIL 2014**

**Maintenance**

**IN-SHOP HANDLING AND MAINTENANCE  
PROCEDURES FOR JAMMED GUNS AND  
AMMUNITION LOADING SYSTEMS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements AFMAN 91-201, ACC Supplement, *Explosive Safety Standards*. It applies to 325th Maintenance Group. This instruction establishes safe handling and maintenance procedures for performing maintenance on jammed aircraft gun systems, UALS and LALS. All off equipment maintenance will be performed within Armament Flight, bldg. 188. It applies to personnel assigned to the 325th Aircraft Maintenance Squadron, 325th Maintenance Squadron, and visiting units attached to 53d Weapons Evaluation Group who are qualified to perform maintenance on jammed UALS and aircraft gun systems. This instruction does not apply to the ANG or AFRC; however, ANG/AFRC personnel assigned to the Classic Associate Units supporting CAF units will comply with the guidance provided within this instruction. Refer recommended changes, waivers and questions about this publication to the OPR using AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from field through the appropriate functional' s chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS).

## 1. PERSONNEL REQUIREMENTS (per jammed system).

1.1. **Maximum:** Supervisors 2, Workers 3, and 2 authorized casuals, i.e. safety or QA personnel. Operations will cease immediately upon arrival of visitors.

1.2. **Minimum:** Supervisor 1, Worker 2.

2. **LOCATION.** The clearing of gun systems and UALS/LALS containing live ammunition is strictly limited to Building 188, Armament Flight. Access to the building will be restricted while clearing operations are in progress.

2.1. The gun maintenance room will be used to perform jammed gun system clearing operations. Door will be closed/secured during clearing operations.

2.2. The main maintenance bay will be used to perform jammed UALS/LALS clearing operations.

2.3. If the situation arrives where the total NEW exceeds 100 lbs of HC/D 1.2.2, the operation will be redirected to a sited location such as the Munitions Storage Area.

## 3. SAFETY REQUIREMENTS.

3.1. The senior qualified Armament Crew Chief will conduct a safety briefing (See Attachment 2) with all personnel associated with the operation. Anytime a new individual enters the work area they will receive a safety briefing. All personnel are responsible for ensuring that all safety precautions are strictly adhered to. Personnel must fill out information in Attachment 2 of this OI.

3.2. Ensure that Maintenance Operation Control Center (MOCC) ext. 3-4320, Fire Department ext. 3-4777 and Munitions Control, ext. 3-3535/8403 are notified when a gun system/UALS/LALS with ammunition is received into Armament Flight. ***Under no circumstances will ammunition be stored or left unattended in Building 188.***

3.3. Ensure appropriate fire symbols are posted on exterior of facility and on door to gun system maintenance room when utilized IAW AFMAN 91-201\_ACCSUP, Section 10B, *Posting Firefighting Symbols.*

3.4. Two fire extinguishers suitable for the hazards involved will be available for immediate use.

3.5. No more than one jammed gun system and one UALS/LALS containing ammunition will be present in the building at any given time. Gun barrels will be pointed at sand barrier located on NW wall of gun maintenance room.

3.6. Armament Flight personnel will disassemble gun system or UALS/LALS components as far as necessary to safely remove all live ammunition, in accordance with applicable technical data.

3.7. Personnel will ensure components containing live ammunition are handled in accordance with AFMAN 91-201 and will validate all grounding systems inspections and tests are current prior to operation. The aircraft gun system or UALS/LALS is to remain grounded at all times during the removal of ammunition.

3.8. Contact Munitions Control (ext. 3-3535/8403) and request for a sufficient number of ammunition cans to be delivered to bldg. 188.

3.9. All ammunition downloaded from jammed gun systems/UALS/LALS must be placed in ammunition containers. Damaged rounds will be kept separate from serviceable rounds. Ammunition will be identified by: aircraft tail number and/or UALS/LALS serial number it was removed from, quantity and, type. This documentation will be completed on AFTO Form 350 tag. One tag per container should be filled out and placed with applicable containers.

3.10. When rounds are found to be chambered in barrels, there will be no attempt by armament personnel to remove it. Explosive Ordnance Disposal (EOD) will be contacted at ext. 283-4115 and upon their arrival the barrels with rounds will be turned over to them.

3.11. Contact Munitions Control (ext. 3-3535/8403) to coordinate immediate pick-up of download ammunition.

3.12. Notify MOCC, via radio or ext. 4320 and Fire Department once both clearing operations is complete and ammunition has been picked-up by Munitions Flight. *Under no circumstances will ammunition be stored or left unattended in Building 188.*

#### **4. DAMAGED ROUNDS PROCEDURES.**

4.1. Spray loose propellant with VVL-800 or MIL-L-14107 lubricating oil.

4.2. Clean up all loose propellant using an oil soaking rag (non-static producing type).

4.3. Turn-in propellant contaminated rags to EOD or munitions personnel for disposition.

4.4. Place masking or similar type tape over holes in punctured ammo cases to prevent further loss of propellant. Turn-in damaged ammunition to munitions or EOD personnel.

#### **5. EMERGENCY PROCEDURES.**

5.1. Notify MOCC, Fire Dept. and MXS Production Super to inform nature of emergency and location.

5.2. Evacuate nonessential personnel to pre-designated location and verify all personnel are accounted for.

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**Attachment 1****GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

AFMAN 91-201\_ACCSUP, *Explosives Safety Standards*, 3 January 2013

AFMAN 33-363, *Management of Records*, 1 March 2008

***Adopted Forms***

AF Form 847, Recommendation for Change of Publication

AFTO Form 350, Reparable Item Processing Tag

***Abbreviations and Acronyms***

**ACC**—Air Combat Command

**AF**—Air Force

**AFB**—Air Force Base

**AFI**—Air Force Instruction

**AFMAN**—Air Force Manual

**AFRC**—Air Force Reserve Command

**AFRIMS**—Air Force Records Information Management System

**ANG**—Air National Guard

**Bldg**— building

**CAF**—Combat Air Force

**EOD**—Explosive Ordinance Disposal

**Ext**—extension

**HC/D**—Hazard Class/Division

**IAW**—in accordance with

**LALS**—Linkless Ammunition Loading System

**lbs**—pounds

**MOCC**—Maintenance Operations Control Center

**MXS**—Maintenance Squadron

**NEW**—Net Explosive Weight

**NW**—North West

**OPR**—Office of Primary Responsibility

**QA**—Quality Assurance

**RDS**—Records Disposition Schedule

**UALS**—Universal Ammunition Loading System

Attachment 2

**EXPLOSIVE SAFETY BRIEFING**

**Table A2.1. Withdrawal Distance**

Nomenclature	Withdrawal Distance (FT) Nonessential Personnel	Fire Symbol
20mm HEI/HEIT/INC/SAP HEI	2500	2
20mm TP/TPT	300	4

**Figure A2.2. Specific Safety Requirements**

**SPECIFIC SAFETY REQUIREMENTS**

*Personnel will periodically touch a grounded surface or a grounding bar in order to dissipate any accumulated static electricity prior to handling ammunition. Ensure all personal emitters are removed. Avoid contact with primers and exposed powder to the maximum extent possible. In the event of a lightning watch/ warning all operations will cease. The maintenance bay involved with the exposed EEDs/20 mm will be vacated. Personnel will convene in non-maintenance administrative area until termination of lightning warning/watch.*

1. Call MOCC \_\_\_\_\_ Fire Dept. \_\_\_\_\_ Muns Control \_\_\_\_\_ and give location/fire symbol \_\_\_\_\_ equipment serial number \_\_\_\_\_.
2. Entry Control Point established.
3. Post building fire symbol placards/ensure fire extinguishers are stationed.
4. Personnel Limits involved in operation;  
Supervisors \_\_\_\_\_ Workers \_\_\_\_\_ Casuals \_\_\_\_\_.
5. Call Muns Control/Request delivery of ammo cans.
6. Barrier set up (If applicable)/equipment grounded.
7. Call Muns Control for pickup of ammunition.
8. Call MOCC Fire Dept. for completion of operation once ammunition has been picked up.
9. In case of fire/emergency.
  - 9.1. Call MOCC \_\_\_\_\_ give location \_\_\_\_\_.
  - 9.2. Evacuate nonessential personnel distance/location \_\_\_\_\_.
  - 9.3. Record time muns enveloped \_\_\_\_\_. Give to on scene commander.