

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

**BEALE AIR FORCE BASE INSTRUCTION  
21-203**



**25 JUNE 2012**

***Maintenance***

***MC-12 DEFENSIVE SYSTEM (DS) FLARE  
ACCOUNTABILITY, BUILD, HANDLING,  
LOADING AND DOWNLOADING  
PROCEDURES***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This publication implements AFI 21-201, *Conventional Munitions Maintenance Management*. This instruction establishes specific guidance for Defensive System modified MC-12 aircraft and is applicable to all wing agencies with operations involving MC-12 aircraft equipped with the AN/ALE – 47 Countermeasure Dispensing System (CMDSD) on Beale AFB. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the 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 in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>

## 1. General

1.1. The procedures outlined must be followed to ensure CMDS munitions and CMDS munitions loaded MC-12 aircraft are handled safely and expeditiously. The CMDS uses Hazard Class and Division 1.3 munitions which require special handling and coordination by all organizations involved.

1.2. Procedures contained in this instruction will be followed during peacetime and contingency.

1.3. Contracted Logistic Support (CLS) personnel will perform flare buildup procedures, track munitions deliveries, uploads and downloads, and expenditures.

1.4. Security for munitions will be IAW AFI 31-101, *Integrated Defense*, and appropriate supplements.

1.5. All 9 RW and CLS personnel will adhere to Explosive safety procedures IAW AFMAN 91-201 and BAFBI 91-12.

## 2. MUNITIONS AND AIRCRAFT LOADING EQUIPMENT (ALE) ACCOUNTABILITY

2.1. 9 MUNS will manage and issue munitions via a munitions custody account IAW AFI 21-201, *Conventional Munitions Maintenance Management*.

2.2. CLS will account for and control all munitions IAW custody account procedures, listed in AFI 21-201 and all applicable supplements.

2.3. CLS will maintain and account for flare modules.

## 3. MUNITIONS SCHEDULING PROCEDURES

3.1. 9 MUNS will provide CLS personnel with the annual IRON FLAG Exercise schedule as soon as the schedule is finalized. Should changes be required 9 MUNS will notify CLS as soon as changes are approved by Air Combat Command and/or Headquarters Air Force.

3.2. CLS personnel will coordinate with 9 MUNS to schedule flare build-up ops. This is to include delivery of components to the operating location and expenditure reconciliation.

**NOTE:** AFCOMAC support will take priority over MC-12 support, if not precoordinated.

3.3. **Unscheduled Workorders.** An unscheduled workorder is an unforeseen requirement that may prevent CLS personnel from performing its mission on time.

3.3.1. 9 MUNS/MXW or MXWM determine supportability. If Munitions supervision determines the request is supportable, no MXG approval is required.

3.3.2. In cases of competing priorities (e.g., semi-annual inventories, IRON FLAG or AFCOMAC support), requests must be justified and approved, in writing, by the 9 MXG commander or designated representative.

3.4. CLS will coordinate with 9 MUNS Munitions Control to establish flare build schedule and include work in the munitions maintenance schedule.

3.5. CLS will coordinate munitions expenditure drop off .

3.6. All scheduling requests will be complete by 1500 on Tuesday of the week prior. CLS personnel will contact munitions control at ext.4- 9050.

3.7. 9 MUNS will track/monitor MC-12 flare requirements in the weekly/monthly production schedule.

3.8. 9 MUNS will not schedule concurrent operations in 1322.

#### **4. MUNITIONS STORAGE AREA ACCESS**

4.1. Personnel requiring access to the Munitions Storage Area will be kept to the minimum. Personnel will have a valid Security Clearance (validated by security manager through JPAS) and attain the training required to operate in an explosive environment IAW AFMAN 91-201.

4.2. Entry Access Letters will be kept current and will be routed through CLS security manager to Munitions Control for authorization by 9 MUNS/CC.

4.3. Access to the Munitions Storage Area (MSA) will be granted between the hours of 0700-1600, Monday through Friday.

4.4. Access to the MSA will be restricted during all IRON FLAG Exercises.

#### **5. FLARE MODULE BUILD UP OPERATIONS**

5.1. All flare module build up operations are to be conducted IAW T.O. 11A16-41-7. Adherence to AFIs and local directives, plus full awareness of emergency procedures IAW BAFBI 91-12, is required.

5.2. CLS will maintain Composite Tool Kits, Op Stock and HAZMAT required to support build up operations and deploy from the CLS support section.

5.3. CLS will perform flare build up procedures in an area designated and provided by 9 MUNS.

**NOTE:** At no time will concurrent operations be conducted in bldg 1322.

5.4. 9 MUNS, as the facility owner/operator, reserves the right for its personnel to discontinue CLS explosive operations should an unsafe or questionable procedure be witnessed or reported.

5.4.1. Personnel will stop the operation and immediately notify Munitions Control and the QAE should this occur.

5.4.2. CLS explosive operations may continue once the situation is resolved

5.5. Only Casuals (I.E. Safety and Quality Assurance personnel, management or inspection personnel) on official business will be allowed to enter an explosives operation. Visitors are nonessential personnel, such as CE or Contractors that have no function at the worksite, but have limited access. Operations will cease while visitors are present at the worksite. Both casuals and visitors will be given an emergency action briefing (found in BAFBI 91-12) that includes a brief description of the operation being conducted, the hazards associated with the munitions present, and evacuation procedures during an emergency.

**NOTE:** Prompt action is taken to control any hazard encountered

5.6. 9 MUNS will provide breakout and storage support to operating/build-up locations.

5.7. Before commencing operations, CLS will perform crew safety briefings IAW AFMAN 91-201 and BAFBI 91-12.

5.8. CLS will notify Munitions Control of operations start and stop times; included will be number of personnel, location and type of munitions involved.

5.9. CLS personnel will ensure proper Fire Symbol/Chemical Hazard is posted on building and bay door IAW AFMAN 91-201.

5.10. After completing buildup activities, CLS Personnel will ensure all munitions, tools, T.O.s, HAZMAT are removed from operating location, FOD check is accomplished and operating location is cleaned.

5.11. CLS personnel will control and maintain all expended flares as explosive until certified as munitions residue by a 9 MUNS certified munitions inspector.

5.12. CLS personnel will ensure AFTO Form 350 is accurately accomplished **prior** to delivering unserviceable munitions to 9 MUNS.

## **6. MUNITIONS TRANSPORTATION**

6.1. CLS will provide munitions transportation to and from the Munitions Storage Area (MSA) to support flightline operations.

6.2. CLS will acquire, utilize and maintain munitions material and handling equipment (MMHE). Only authorized MMHE will be utilized when conducting munitions operations.

6.3. All explosives transportation will occur IAW AFMAN 91-201 and BAFBI 91-12.

## **7. PERSONNEL LIMITS**

7.1. Refer to BAFBI 91-12 for supervisor, worker and casual personnel limits.

## **8. TRAINING REQUIREMENTS**

8.1. All countermeasure load training will be performed by CLS personnel.

8.2. Only trained/qualified CLS personnel will perform live flare loading/unloading operations.

8.3. All personnel handling explosives will receive initial and recurring annual explosives safety training. This training will be documented in CLS personnel training records.

## **9. PARKING RESTRICTIONS**

9.1. The M206/211 flares loaded on the MC-12 aircraft do not present a forward firing ordinance hazard due to their limited range and downward directional response.

9.2. Flare loaded aircraft will be parked on the Liberty Parking Ramp only. Spots designated for MC-12 aircraft with flares are L-1-A, B and C through L-9-A, B and C.

9.3. Non-essential personnel/equipment/vehicles standing, stopping, or parking directly in front of flare-loaded aircraft will be limited to no closer than 100 feet.

9.4. Flare loaded aircraft will be downloaded prior to entering maintenance hangars.

9.5. Aircraft parked on spots adjacent (left or right of aircraft) to flare loading/downloading operations will not run engines, be serviced with gaseous oxygen, or fueled/defueled.

9.6. Flare loading and unloading operations will not be accomplished, or flare loaded aircraft parked, at any time in the following locations:

9.6.1. Aircraft Maintenance Hangars

9.6.2. Aircraft Wash Rack

9.7. The use of flare loaded aircraft for static display or exercise scenarios is prohibited.

## 10. FIRE PROTECTION

10.1. Posting of fire symbols is not required for flare loading/downloading operations. (AFMAN 91-201 para 12.47.2)

10.1.1. 9th Maintenance Operation Center (MOC) will notify the Fire Protection flight when each aircraft is loaded or unloaded. MOC will provide aircraft tail number and parking location.

**Table 10.1. CMDS Explosive Payload Limits per Aircraft.**

Nomenclature	Hazard Class/Division	Fire Symbol	Withdrawal Distance
M-206 Flare	1.3/G	3	600ft.
M-211 Flare	1.3/G	3	600ft.

10.2. Fire fighting procedures for Countermeasures Flares.

10.2.1. For fires involving pyrotechnics and magnesium incendiaries, do not use halon, carbon dioxide or water type fire extinguishers on or near CMDS munitions.

10.2.2. It is acceptable for firefighters to use a water stream to move an ignited flare away from a threatened aircraft or facilities.

## 11. FLARE LOAD COORDINATION

11.1. CLS personnel will notify 9 OSS/OSO of defensive system tasking for Beale AFB.

11.2. 9 OSS/OSO will notify 9 MOS/MXOOP of the defensive system tasking.

11.3. 9 MOS/MXOOP will coordinate with CLS schedulers to select aircraft tail number, coordinate aircraft availability, indicate configuration, schedule timeline, and schedule the event in daily/weekly flying schedules.

11.4. CLS personnel will assemble flares, load assembled flares into modules, and deliver loaded modules to the flight line for installation on the aircraft.

**12. FLARE LOAD PROCEDURES \*NOTE:** In the event of a munitions mishap involving the CMDS, MOC will contact Fire Protection flight, EOD, 9 RW Safety, Airfield Management, 9 MUNS/Control and MXG QA. All nonessential personnel will be evacuated a minimum of 600 feet from the site.

12.1. CLS personnel will configure aircraft for flare loading requirements.

12.2. CLS Flare load teams will notify MOC prior to start of flare upload operation.

12.3. Ensure adequate area lighting when uploading/downloading explosives during hours of dusk/darkness.

12.3.1. CLS personnel will contact 9 MXS Production Superintendent to ensure an NF-2 light cart is available and in place, if required.

12.4. CLS personnel will perform the flare load operation. CLS production personnel will notify MOC whenever there is an aircraft tail swap so accountable records can be adjusted.

12.4.1. Prior to starting flare loading procedures CLS personnel will ensure aircraft is properly grounded.

12.4.2. Flare load team will verify inventory IAW GOP 350ISR-027. The flare load team will add an "INFO NOTE" in the aircraft 350ISR-F-001, stating the number of flares loaded.

12.4.3. CLS Flare load teams will follow load procedures IAW *LCL-17 Nonnuclear Munitions Loading Procedures AN/ALE-47 Counter Measures Dispensing System KA350 Aircraft*.

12.4.4. Upon completion of the upload, normal maintenance may continue on the aircraft providing that the CMDS is safe (power removed from CMDS, and master safety pin is installed).

**NOTE:** CLS will provide all of their own maintenance stands. Use of AF owned units will be by request only.

**13. FLARE DOWNLOAD PROCEDURES CAUTION:** All flares downloaded after flight from any aircraft must be inspected to confirm serviceability prior to uploading on another aircraft.

13.1. Prior to starting flare downloading procedures CLS personnel will ensure aircraft is properly grounded.

13.2. CLS Flare load teams will follow download procedures IAW *LCL-17 Nonnuclear Munitions Loading Procedures AN/ALE-47 Counter Measures Dispensing System KA350 Aircraft*.

**CAUTION:** Flares placed in transport containers will have the ejection end facing down with the squib/plate facing up.

13.3. CLS Flare load teams will notify MOC when download is complete.

#### **14. MAINTENANCE RESTRICTIONS**

14.1. Open fuel system maintenance will not be performed on flare-loaded aircraft.

14.2. Flare-loaded aircraft will not be jacked.

**15. AIRCRAFT EMERGENCY WITH FLARES ONBOARD NOTE:** The minimum withdrawal distance for personnel and equipment if flares are involved or suspected to be involved in fire is 600 feet.

15.1. Once an aircraft emergency is declared, the Control Tower will activate the primary crash net. Normal emergency response procedures will be followed.

15.2. MOC will run the applicable QRC and notify 9 RW Safety, MXG QA, MOC 1, 9 MUNS/Control and the 9 AMXS and 9 MXS Pro Supers of the presence of flares and the number remaining (if known).

15.3. If the emergency is terminated and there is no damage to the interaction with the flare system, or possibility of adverse effects to the flare system, the aircraft may be parked in the normal parking area.

**PAUL H. MCGILLICUDDY, Brigadier General, USAF  
Commander, 9th Reconnaissance Wing**

## Attachment 1

### GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

#### *References*

T.O. 11A-1-33, *Handling and Maintenance of Explosives-Loaded Aircraft*, 28 January 2010

T.O. 11A16-41-7, *Storage and Maintenance Procedures Flare, Infrared CM, M206 and Cartridge, Impulse, BBU-35/B and Simulator IR Flare, M206(T-1)/B*, 13 June 2011

*LCL-17 Nonuclear Munitions Loading Procedures AN/ALE-47 Counter Measures Dispensing System KA350 Aircraft*, 30 May 2009

AFI 31-101, *Integrated Defense (FOUO)*, 8 October 2009

AFI 21-101, *Aerospace Equipment Maintenance Management*, 26 July 2010

AFI 21-201, *Conventional Munitions Maintenance Management*, 7 March 2012

AFMAN 91-201, *Explosives Safety Standards*, 12 January 2011

AFI 91-202, *The US Air Force Mishap Prevention Program*, 5 August 2011

T.O. 00-25-172, *Ground Servicing of Aircraft and Static Grounding/Bonding*, 10 February 2010

General Operating Procedure 350ISR-027, *Ordinance*, 3 June 2009

AFMAN 33-363, *Management of Records*

#### *Adopted Forms*

AF Form 847, *Recommendation for Change of Publication*

AFTO Form 350, *Repairable Item Tag*

#### *Abbreviations and Acronyms*

**AFRIMS**— Air Force Records Management System

**CLS**—Contracted Logistic Support

**CMDS**—Countermeasures Dispensing System

**CLS**— Contract Logistics Support

**IAW**—In Accordance With

**MMHE**—Munitions Material and Handling Equipment

**MOC**—Maintenance Operations Center

**MSA**—Munitions Storage Area

**QRC**— Quick Reaction Checklist

#### *Terms*

**DUD FLARE:**—An aircraft loaded flare which failed to function or fire where the ejection end shows NO EVIDENCE of flare material and the weather seal is INTACT. This flare is no more

or less hazardous than a normal flare and can be down loaded using normal down load procedures.

**EXPLOSIVE LOADED AIRCRAFT**— An aircraft is considered EXPLOSIVES-LOADED when it carries munitions or explosives, internally or externally, including nuclear weapons.

**HUNG FLARE:**—An aircraft loaded flare which failed to function or fire where the ejection end shows EVIDENCE of flare material and the weather seal is DAMAGED or MISSING. This flare presents a more hazardous condition than a normal flare.

**PRIMARY EXPLOSIVE SAFETY ZONE (PESZ)**— An unmarked boundary that extends 50 feet around the aircraft to create an essential-personnel-only safety area during flare load/download operations.