

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

**BEALE AFB INSTRUCTION 91-208**

**6 DECEMBER 2010**



*Safety*

**PARKING OF EXPLOSIVES LOADED  
AIRCRAFT**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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(Colonel Sarah E. Zabel)  
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This instruction implements AFD 91-2, Safety Programs and AFMAN 91-201, Explosive Safety Standards. This instruction outlines the procedures and assigns the responsibilities ensuring positive actions exist to reduce the hazards to personnel and resources during the parking and loading/unloading of explosives loaded aircraft. It outlines procedures for conducting field training exercises where explosives are used. It applies to all 9 RW, associate, deploying, reserve units conducting such activities on Beale AFB and 9 RW personnel involved in such activities on the installation. This instruction applies to 9th Reconnaissance Wing (9 RW), 9th Support Division (SDS), 9th Maintenance Group (MXG), Beale Command Post (BCP), 9 RW Safety (SE), 9 RW Public Affairs (PA), 9th Operations Support Squadron Airfield Management (OSA, OSAA) and 9th Security Forces (SFS) (SFOL). Refer recommended changes and questions about this publication to the Office of Primary Responsibility using the AF Form 847, Recommendation for Change of Publication; route AF Form 847s from the field through 9 RW/CCEA. 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/gcss-af61a/afirms/afirms/>.

**SUMMARY OF CHANGES**

This is reserved for summary of changes

## 1. Definitions

1.1. Aircraft Explosives Cargo Parking Area. Any area, commonly called a hot cargo pad (HCP), specifically designated for parking aircraft loaded with transportation-configured explosives cargo, or those being loaded, unloaded, or awaiting loading. Beale AFB aircraft explosives cargo parking area is designated as HCP#1 on taxiway F and the Combat Aircraft Parking Area (CAPA1); see Attachment 3 Maps and the 9 RW Master Aircraft Parking Plan.

1.2. Combat Aircraft Parking Area (CAPA). Any area specifically designated for parking aircraft loaded with combat configured explosives, or those being loaded, unloaded or awaiting loading.

1.2.1. Beale AFB combat aircraft parking area is designated as Taxiway M, located at the north end of the airfield adjacent to the "hammerhead"; See Attachment 3 Maps and the 9 RW Master Aircraft Parking Plan.

1.3. Quantity-Distance (QD). The quantity of explosive material and distance separation relationships that provide defined levels of protection. The relationships are based on levels of risk considered acceptable for specific exposures and are tabulated in applicable QD tables. These separation distances do not provide absolute safety or protection. Greater distances than those in the QD tables should be used if practical.

1.4. Explosives-Loaded Aircraft. An aircraft is considered "Explosives-Loaded" when it carries munitions or explosives, internally or externally, including nuclear weapons in accordance with (IAW) T.O. 11A-1-33 and AFMAN 91-201.

1.5. Non-explosives Loaded Aircraft. An aircraft is not considered explosives-loaded for maintenance purposes when the following munitions and/or explosives items are installed (IAW T.O. 11A-1-33):

1.5.1. Egress system components including crew module escape systems.

1.5.2. Authorized signals and flares stored in aircraft survival kits.

1.5.3. Pyrotechnics kept in securely mounted protective containers that are a normal complement of regularly authorized aircraft equipment used by aircraft crew in an emergency for their survival/rescue.

1.5.4. Pilotless aircraft or drone recovery system explosive components.

1.5.5. Destructors installed in sensitive electronic equipment or instrumentation.

1.5.6. Fire extinguisher cartridges.

1.5.7. Engine starter cartridges.

1.5.8. Small arms ammunition designated for crew use for their survival/rescue.

1.5.9. Explosive items of Class 1, Division 4 whose removal requires considerable disassembly and whose retention has been authorized by the MAJCOM.

1.5.10. Inert training munitions.

1.6. Net Explosive Weight for QD (NEWQD). The total quantity, expressed in pounds [kilograms], of high explosives equivalency in each item or round to be used when applying QD criteria or other standards. The NEWQD is equal to the NEW unless hazard

classification testing has shown that a lower weight is appropriate for QD purposes. (Note: If the NEWQD is less than the NEW, the reason is usually that propellant or other substances do not contribute as much to the blast effect as the same amount of high explosive would.)

1.7. Explosive Site Plan (ESP). Package consisting of all information necessary to assess compliance with explosives safety standards (especially quantity-distance standards) for explosives storage or operating location. Once approved, this package identifies storage and operational limitations, and provides a tool for management of risks associated with the storage or operating location. Note: An ESP can also be prepared for a non-explosives exposed site.

1.8. Explosives Sited Combat Aircraft Parking Area. An aircraft parking area meeting both explosives safety and airfield criteria. Also review the 9 RW Master Aircraft Parking Plan for any changes.

1.9. Potential Explosion Site (PES). The location of a quantity of Ammunition and Explosives AE) that will create a blast, fragment, thermal, or debris hazard in the event of an accidental explosion of its contents.

1.10. Exposed Site (ES). Any permanent structure, utility, POL, at risk from either blast or fire effects of a Potential Explosion Site (PES). An ES may or may not contain AE.

1.11. Electro-Explosive Device (EED). An explosive or pyrotechnic component that initiates an explosive, burning, electrical, or mechanical train and is activated by the application of electrical energy.

1.11.1. WARNING: All cellular phones, pagers and radios will remain 25 feet from the aircraft that has explosive-loaded to prevent injury to personnel and or damage to aircraft.

1.12. Flight line Munitions Holding Area (FLMHA). A designated area where munitions and components are temporarily positioned awaiting transfer to aircraft. Examples are Ready Service Igloo, Ready Service Magazine, Ready Service Module, Standard Air Munitions Package (STAMP) marshalling area, and Aerial Port of Embarkation (APOE) marshalling area.

1.12.1. There is one FLMHA and is located on the alert pad (AL) between spots AL5 and AL6,(see Attachment 3) for storage of ammunition and explosives that are palletized and ready to be shipped to the Hot Cargo Pad or back to the Munitions Storage Area (MSA).

1.12.2. The FLMHA size is 40 feet by 90 feet; see Attachment 3 Maps for location.

1.12.3. Munitions owning organizations are responsible for the security of their palletized munitions; at least one person will remain with the munitions with a radio for emergencies. Radios, cellular phones and pagers will not be closer than 25 feet to any palletized munitions.

1.13. Hazard Classification. Process by which hazardous materials are assigned to one of the nine U.N. recognized classes of dangerous goods.

1.14. Hazard Division (HD). One of six divisions designating the predominant hazard within UN Class 1, Explosives (examples: HC/D 1.1, 1.2.1, 1.3, 1.4. 1.5 and 1.6).

**2. Explosives Cargo Operations.** Attachment 2 contains a matrix for explosives cargo operations on the hot cargo pad. It indicates actions that must be taken to meet current explosives safety standards and minimize the collateral damage in the event of an explosive mishap.

**3. Responsibilities.**

3.1. Any agency aware of inbound explosives-loaded aircraft shall immediately notify Airfield Management (OSA) (4-2002) and BCP (4-5700), who will further notify the 9 SD Transient Alert office (4-8685 / 635-7556 cell) and the 9 RW/SE Weapons Safety (SEW) Office (4-8875/4-4026).

3.2. Airfield Management (OSA):

3.2.1. Will park the aircraft on HCP#1 if it is larger than a fighter aircraft upon notification of an inbound HC/D 1.1 or 1.2.X explosives-loaded aircraft. Fighter aircraft shall be parked on the CAPA1. All aircraft must meet the sited NEWQD at Attachment 2.

3.2.2. Will notify the Fire Emergency Services and 9 SFS.

3.2.3. When Taxiway Echo (See Attachment 4) is utilized for the aircraft carrying hung ordnance, the 9th CES EOD will be notified via the secondary crash net and OSA shall close Taxiway Echo until EOD declares the area safe.

3.3. 9 RW/SEW will conduct observations of the areas being used for hot cargo operations, CAPAs and the FLMHA to ensure compliance.

3.4. The team chief of the operation has the overall responsible to ensure personnel are given the safety briefing (Attachment 4), personnel protective equipment, ensure only trained personnel handle munitions and post the proper fire symbol on the nose wheel of the aircraft. Then ensure when remove prior to departure.

3.4.1. Ensure the Fire Depart is notified of any explosive-loaded locations; the type of aircraft munitions and amounts.

**4. EXPLOSIVE LIMITS.**

4.1. Explosive limits will not exceed the NEWQD in the ESP. Personnel should refer to Attachment 2 or call the 9RW/SEW office (4-8875) for clarification.

4.2. The Explosive Prohibited Zone prevents any explosive-loaded aircraft on spot AL10.

4.3. ACC or AFRC owned aircraft will not be parked within 559 feet of FLMHA when 30,000 pounds of HC/D 1.1 is being storage at the location and 1,250 feet for civilian aircraft.

**5. PERSONNEL LIMITS.**

5.1. Supervisors (2), Workers (10) and up to four casual personnel will be allowed per explosive location (QA, SDS Trainees, Safety and etc.)

5.2. All visitors will be stopped at the entry control point and will not enter into any explosive operations.

## **6. NOTIFICATION REQUIREMENTS.**

6.1. The following agencies will be notified at least 24 hours prior to commencement of the operation and upon completion of operation:

- 6.1.1. SFS (4-2131)
- 6.1.2. Control Tower (to be contacted by Airfield Management)
- 6.1.3. Airfield Management Operations (4-2002)
- 6.1.4. Fire Emergency Services (4-8675)
- 6.1.5. BCP (4-5700)
- 6.1.6. 9 RW/SEW (4-8875 or BCP after hours)
- 6.1.7. 9 SDS Transient Alert / Supervisor (4-8685, 4-8691)

## **7. EMERGENCY PROCEDURES.**

7.1. In case of injury to personnel:

- 7.1.1. Render first aid, while observing precautions associated with blood-borne pathogens. If at all possible, avoid skin contact with the victim's blood.
- 7.1.2. Notify the base Fire Emergency Services the fire/crash net or via cell phone at 911.
- 7.1.3. Notify Wing Safety.
- 7.1.4. Notify unit supervisor and/or safety representative.

7.2. In case of fire:

- 7.2.1. Notify the base Fire Emergency Services via the fire/crash net or via cell phone at 911.
- 7.2.2. Remove explosives from the area, if it is safe to do so.
- 7.2.3. Stand-by to escort firefighters into the area. Arrange to meet the Fire Emergency Services near the gate 8 on J Street for HCP#1 and CAPA1. For the alert pad at gate 2 on Alert Road.
- 7.2.4. Evacuate non-essential personnel to the appropriate distance (see Attachment 4).

## **8. WEAPONS SAFETY TRAINING.**

8.1. Train individuals who work with, operate, handle, transport, maintain, load, or dispose of nuclear or explosive systems IAW AFI 91-202 ACCSUP1 Para. 10.10.3.3.1. Units are required to develop their own lesson plans/tests for their unit that cover work center peculiarities. Both need to be approved by the Weapons Safety Manager prior to use.

SARAH E. ZABEL, Colonel, USAF  
Commander, 9th Mission Support Group

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

AFMAN 91-201, *Explosives Safety Standards*

ACC Sup 91-201, *Explosive Safety Standards*

AMC Sup 91-201, *Explosive Safety Standards*

AFRC Sup 91-201, *Explosive Safety Standards*

Department of Defense (DOD) Standard 6055-9, *Department of Defense Ammunition and Explosives Safety Standards*.

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

T.O. 11A-1-46, Fire Fighting Guidance, Transportation and Storage Management data

The 9 RW Master Aircraft Parking Plan (OPR: 9 OSS)

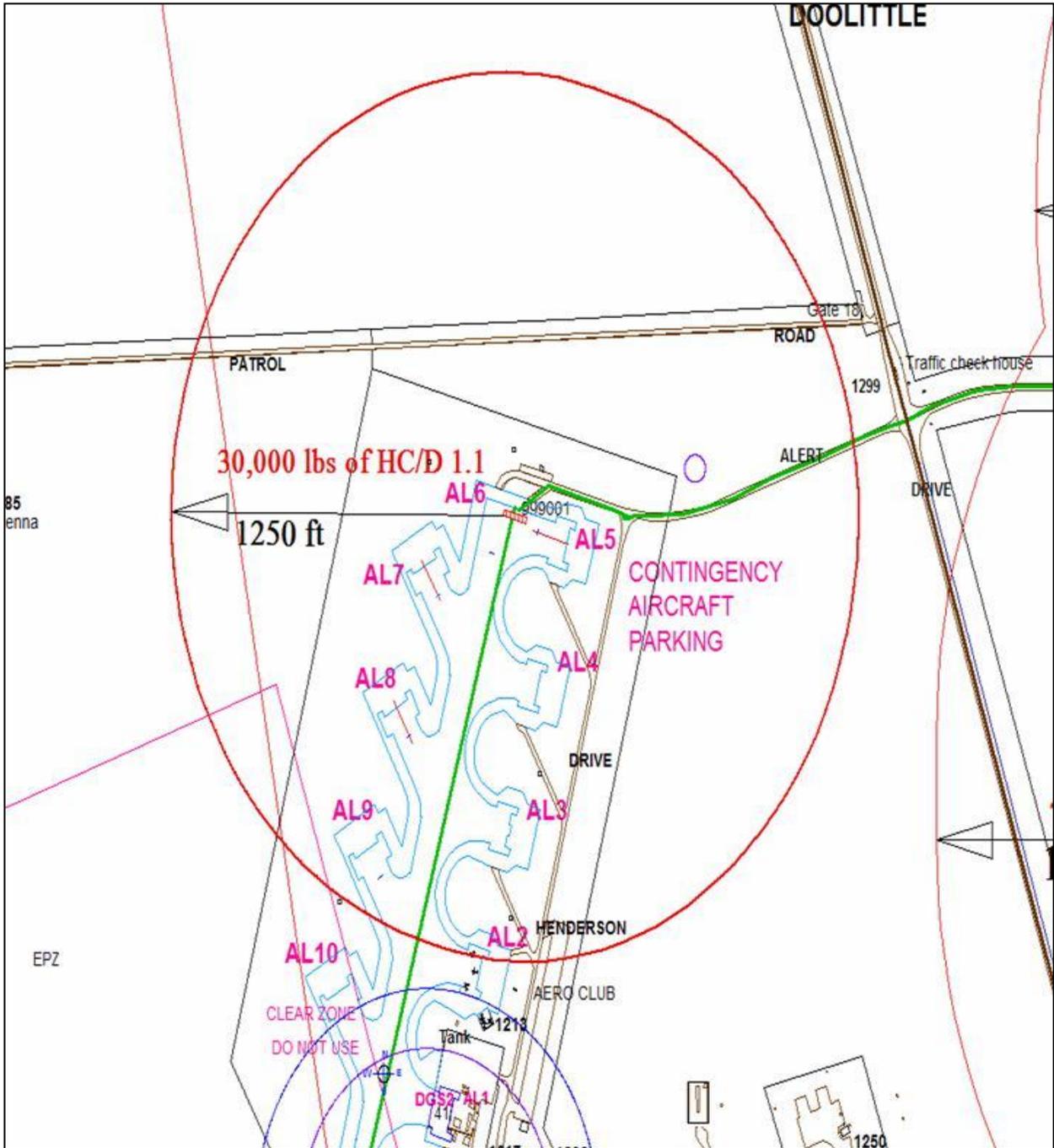
## Attachment 2

## HOT CARGO PAD AIRCRAFT

## PARKING, CAPA1 AND FLMHA MATRIX

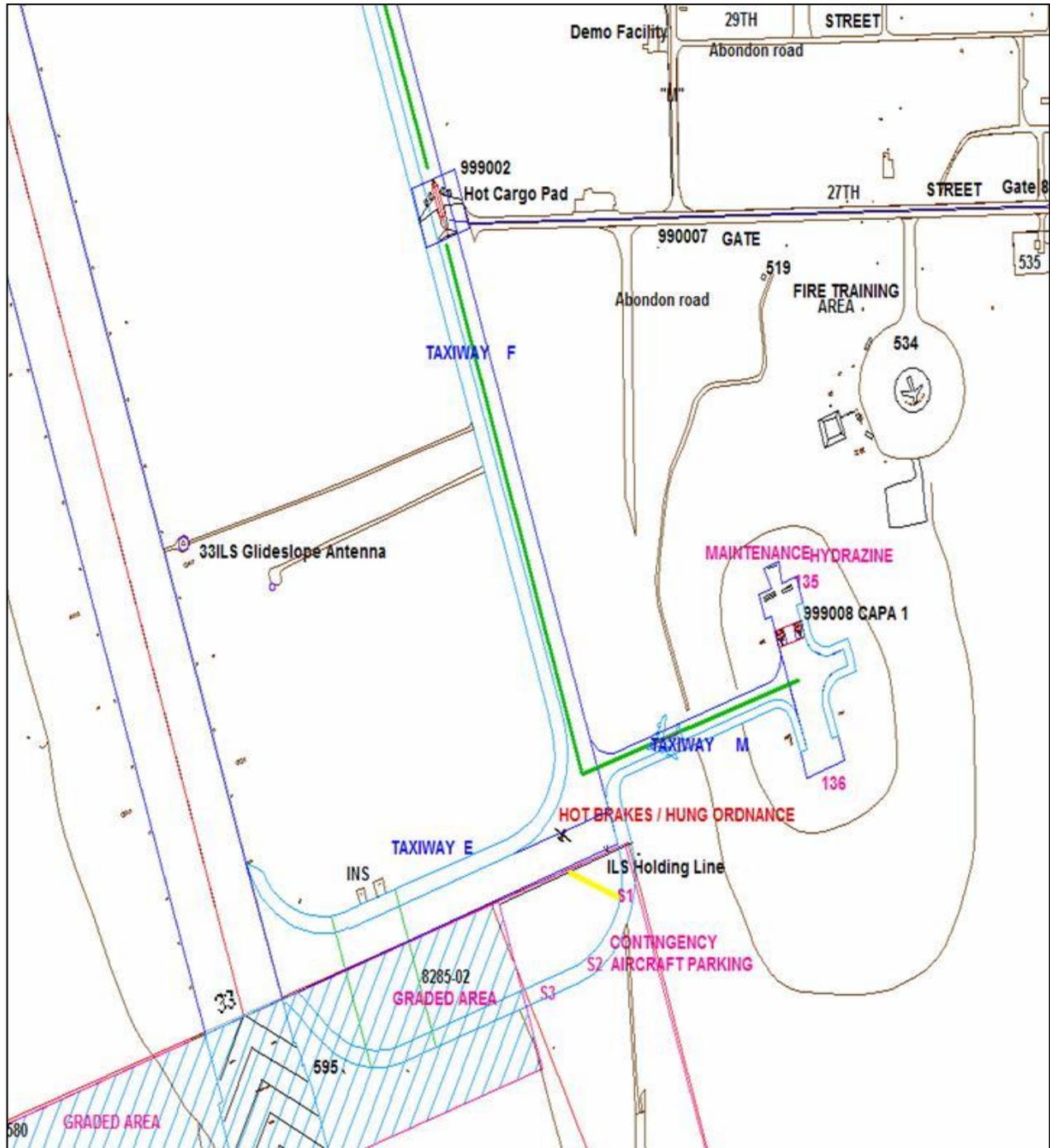
Location	SITED NEWQD	HC/D	Exposed Eastern Taxi- way	Taxiways	Explosive Clear Zone distance in feet (ft)
<b>999002 Hot Cargo Pad HCP D-5</b>	30,000 27,000 50,000 50,000 50,000 Capacity	1.1 1.2.1>450 1.2.2 (12)1.2.3<450 1.3 1.4	Military A/C only	<b>Taxiway F</b> No Restrictions	<b>1250 ft</b>
<b>99008 CAPA1</b>	46.5 None None None 180 Capacity	1.1 1.2.1 1.2.2 1.2.3 1.3 1.4	Military A/C only	<b>Taxiway M</b> No Restrictions	<b>400 ft</b>
<b>999001 FLMHA</b>	30,000 27,000 50,000 50,000 50,000 Capacity	1.1 1.2.1<450 1.2.2 (12)1.2.3<450 1.3 1.4	Military A/C only	<b>Taxiway A</b> Restrictions: Para. 5.2 and 5.3	<b>1250 ft</b>

Attachment 3  
MAPS (FLMHA)



Attachment 4

MAPS (HCP#1, CAPA1 AND THE HOT BRAKES/HUNG ORDNANCE AREAS)



## Attachment 5

## PRE-TASKING BRIEFING CHECKLIST

Consult the Joint Hazard Classification System (JHCS)

<https://www.dac.army.mil/esidb/esmamquery.asp>

1. Location & Operation to Be Performed: \_\_\_\_\_
2. Crew Chief: \_\_\_\_\_ Item In Work: HAZ CLASS/DIV **1.2 / 1.3 / 1.4**
3. Explosive Limits: \_\_\_\_\_ Hazards Involved: \_\_\_\_\_
4. Operating Limits: \_\_\_\_\_ (Refer to Para 3.2)
5. Personnel Limits: Supervisor: \_\_\_\_\_ Workers: \_\_\_\_\_ Casuals: \_\_\_\_\_ Total: \_\_\_\_\_
6. Compatibility Group: \_\_\_\_\_ N.E.W: \_\_\_\_\_ Drop Dist: \_\_\_\_\_  
Packed/Unpacked: \_\_\_\_\_ / \_\_\_\_\_.

**NOTE**

Refer to AFMAN 91-201 before mixing compatibility groups.

HAZARD SYMBOL CODE \_\_\_\_\_ (T.O. 11A-1-46, table 3-2, column 2 for symbol and table 2-1 for code definition)

**NOTE**

Fire symbol updates will be called into munitions control (4-9081) while in the MSA by the crew chief and delivery personnel adding or removing the explosives. Call the 9 CES Fire Emergency Services Emergency Control Center (ECC) once stored in the license facility.

7. Operation Hazards:

\_\_\_\_\_  
T.O. (s): \_\_\_\_\_

**7. Pre-task:**

- Work order initiated/opened and notifies manager
- Technical data/FOI/tools/equipment/vehicles readily available
- Fire extinguishers inspected and serviceable (at least two 2A:10BC)
- Ensure personnel have all required personnel safety gear  
(Safety toe boots, ear/eye protection, gloves, etc.)

**8. Crew Briefing:**

- Crew members briefed on specific duties
- Remove all rings, watches and wrist jewelry
- All pertinent warning/cautions/notes briefed and explained. Including electro-explosive devices if required

- Stop operations when visitors are present. Visitors briefed on task/hazards prior to entering operation.
- If abnormal conditions exist, stop operation and obtain technical guidance until condition is corrected.

10. Highest Class/Div at Location: **1.2 / 1.3 / 1.4** Withdrawal Distance: \_\_\_\_\_

11. Evacuation Assembly Point: \_\_\_\_\_

### **NOTE**

**Withdrawal Distances for AE Not Involved in Fire.** When AE is not involved in fire, such as dropped AE or partially-armed AE, 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. (AFMAN 91-201, Para. 10.2.)

### **EMERGENCY PROCEDURES**

**All personnel are considered non-essential. If munitions become engulfed in flames EVACUATE unless rescue attempt must be made. Fight fires only if small enough and munitions are not involved.**

12. \_\_\_\_\_ Time Munitions Engulfed In Flames: \_\_\_\_\_

13. \_\_\_\_\_ Will Notify Fire Dept Via Phone **Hotline** (911).

13a. \_\_\_\_\_ Will Notify Command Post Via Phone 634-5700.

14. \_\_\_\_\_ And \_\_\_\_\_ Will Operate Fire Extinguishers.

15. \_\_\_\_\_ Will Direct The Fire Emergency Services / EOD To The Scene.

16. \_\_\_\_\_ Will Evacuate Personnel, Call Roll And Supervise Assembly Point.

### **NOTE**

1. The Incident Commander will determine if a fire is to be fought and if the situation requires evacuation. **If in doubt--evacuate.**

2. Do not move anything once an accident has occurred, except to save life or property.

**Fire Withdrawal Distances for Non-essential Personnel:** (Ref: AFMAN 91-201 table 10.3.)

HD	UNKNOWN QUANTITY	KNOWN QUANTITY
	(ft) [m]	(ft) [m]
Unknown, located in facility, truck and or tractor trailer	4,000 [1,219]	4,000 [1,219]
Unknown, located in railcar	5,000 [1,524]	5,000 [1,524]
1.1 <sup>1</sup> and 1.5	Same as unknown facility, truck, trailer, or railcar as appropriate	<p>For Transportation:</p> <p>NEWQD ≤ 500 lb D = 2,500 ft NEWQD ≤ 226.8 kg D = 762 m</p> <p>NEWQD &gt; 500 lb D = 5,000 ft for railcars D = 4,000 ft for other modes NEWQD &gt; 226.8 kg D = 1,524 m for railcars D = 1,219 m for other modes</p> <p>For bombs and projectiles with caliber 5-in [127 mm] or greater D = 4,000 ft D = 1,219 m</p> <p>For Facilities:</p> <p>NEWQD ≤ 15,000 lb D = 2,500 ft NEWQD ≤ 6,804 kg D = 762 m</p> <p>15,000 lbs &lt; NEWQD ≤ 55,285 lbs D = 4,000 ft 6,804 kg &lt; NEWQD ≤ 25,077 kg D = 1,219 m</p> <p>NEWQD &gt; 55,285 lbs D = 105W<sup>1/3</sup> NEWQD &gt; 25,077 kg D = 41.65Q<sup>1/3</sup></p>
1.2 <sup>1</sup> and 1.6	2,500 [762]	2,500 [762]
1.3	600 [183]	Twice IBD with a 600 ft (183 m) minimum (T 12.12)
1.4	300 [91.5]	300 [91.5]

**NOTES:**

- Emergency withdrawal distances do not consider the potential flight range of propulsion units.
- For HD 1.1 and HD 1.2 AE, if known, the maximum range fragments and debris will be thrown (including the interaction effects of stacks of items, but excluding lugs, strongbacks, and or nose and tail plates) may be used to replace the distances given.