BY ORDER OF THE COMMANDER
8TH FIGHTER WING

8TH FIGHTER WING INSTRUCTION
21-102

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Maintenance

LAUNCH AND RECOVERY OF EXPLOSIVE LOADED AIRCRAFT, END OF RUNWAY, AND HUNG ORDNANCE/JAMMED GUN PROCEDURES

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Maintenance of Military Materiel*, and fulfills the requirement of Air Force Instruction (AFI) 21-101, *Aircraft and Equipment Maintenance Management*, by establishing procedures for launch and recovery of explosives loaded aircraft, end-of-runway procedures, hung ordnance, unsafe gun, and jammed guns procedures. Unit commanders and supervisors are responsible for compliance with the provisions of this instruction. Commanders and supervisors will ensure that all personnel subject to operations covered by this instruction are thoroughly knowledgeable of the inherent dangers of the operation and the safety precautions necessary for safe and efficient accomplishment. It is applicable to all 8th Fighter Wing (8 FW) aircraft, transient aircraft and units deployed to Kunsan Air Base, Korea. 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 the AF Forms 847 from the field through the appropriate functional chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been substantially revised and must be reviewed in its entirety. Changes have been made to this instruction consisting of the following: Updated End of Runway (EOR) procedures for Arming and De-arming personnel requirements.

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1. Launch and Recovery of Explosive-Loaded Aircraft:

1.1. **Location of Operations:** Designated locations to arm/de-arm aircraft outside normal aircraft parking areas as well as hung ordnance parking areas are identified in **Attachments 3, 4, and 5**. Aircraft arming and de-arming is authorized to be performed in the Hardened Aircraft Shelter (HAS), on the apron of a HAS, within the aircraft flow-throughs or at End of Runway (EOR) as necessary. If needed, the overflow north and south ramps can be used for EOR. During exercises, contingencies, etc., variations will be coordinated through 8th Fighter Wing Safety Office (8 FW/SE), 8th Operations Group Commander (8 OG/CC), and approved by 8th Maintenance Group Commander (8 MXG/CC). For hung ordnance/gun procedures, refer **paragraph 3** of this instruction.

2. End of Runway Procedures for Explosive Loaded Aircraft:

2.1. **Personnel Requirements:**

2.1.1. One flightline maintenance seven skill level EOR Supervisor.

2.1.2. Remainder of Team Composition: (Minimum requirements. Adjust for mission requirements).

2.1.2.1. Arming: One F-16 qualified 2A3X3 (Tactical Aircraft Maintenance) and two F-16 qualified 2W1X1s. (At a minimum, one of the 2W1X1s must be a marshalling and checklist qualified team chief for both LIVES & INERTS).

2.1.2.2. **De-arming: One F-16 qualified 2A3X3, and two F-16 qualified 2W1X1.** (At a minimum, one of the 2W1X1s must be a marshalling and checklist qualified team chief for LIVES & INERTS).

2.2. **Training Requirements:**

2.2.1. 2A3X3 personnel:

2.2.1.1. Maintenance orientation.

2.2.1.2. Current marshaling certification.

2.2.1.3. F-16 egress training.

2.2.2. 2W1X1 personnel:

2.2.2.1. F-16 weapons academics.

2.2.2.2. Maintenance orientation.

2.2.2.3. Current marshaling certification.

2.2.2.4. F-16 egress training.

2.2.2.5. Flightline personnel need to be certified/qualified on munitions to be armed/safed.

2.3. **Equipment Requirements:**

2.3.1. **Standard equipment requirements are determined by AFI 21-101 and applicable supplements.**

2.3.2. Additional requirements are determined by applicable aircraft launch and recovery technical data.

2.3.3. The following protective equipment is required only for aircraft loaded with white phosphorus rockets, with exception of **paragraph 2.3.3.5** which is required for aircraft loaded with Bomb Dummy Unit (BDU-33) cold spots signaling cartridges.

2.3.3.1. Flame proof gloves.

2.3.3.2. Face shield.

2.3.3.3. Gauze sponges.

2.3.3.4. Two regular sponges.

2.3.3.5. Five gallons of clean water (also required for BDU-33 cold spots).

2.4. **Procedures:**

2.4.1. **EOR explosive arm/de-arm procedures are determined by applicable aircraft launch and recovery technical data.**

3. Hung Ordnance and Gun Procedures:

3.1. **General:** These instructions will be followed when aircraft return to Kunsan Air Base with hung ordnance and/or guns.

3.2. **Hung Ordnance Definition:** Any item attached to the aircraft for the purpose of dropping or firing which malfunctioned or failed to release. Hung ordnance includes the following items: (1) External fuel tanks after unsuccessful jettison attempt; (2) Remaining ordnance after an inadvertent release; (3) 20/30 mm ammunition after a gun malfunction (no fire, unplanned cease fire, runaway gun, or gun unsafe indication); (4) Any stores determined to be in an unsafe condition; (5) Chaff/Flare.

3.2.1. Hung (Secured) Ordnance: Items identified in **paragraph 3.2** that can be safed by performing normal de-arming procedures. Aircraft landing with hung (secure) chaff/flare or practice/inert training ordnance (excluding rockets and 20/30 mm ammo) will proceed to nearest EOR area Taxiway (TWY A or TWY E) and park in the spot closest to the runway.

3.2.2. Hung (Unsecure) Ordnance: Items identified in **paragraph 3.2** that cannot be safed by performing normal de-arming procedures. For aircraft landing with hung (unsecured) ordnance, a ground emergency will be declared. The aircraft will immediately be shut down and the area will be evacuated In Accordance With (IAW) TO 1F-16C-33-1-2, *Nonnuclear Munitions Loading Procedures*. EOD will respond and only personnel identified by EOD, with permission from the IC, will be allowed to enter the area until termination of the ground emergency.

3.3. **Hung Ordnance Procedures:**

3.3.1. Preliminary Actions:When the tower is advised that an aircraft is landing with live hung/damaged ordnance (excluding: chaff/flare, BDU-33s, 2.75 rockets Target Practice (TP), inert ordnance or training ordnance that do not contain any explosive component), they will take actions in accordance with AFI 11-2F-16V3_8FWSUP, *F-16 Operations Procedures.* The Emergency Communication Center (ECC) will notify 8th Security Forces Squadron, Security Forces Control Center (8 SFS/SFCC) to have security forces personnel placed on standby in the event a cordon needs to be established. Appropriate Aircraft Maintenance Unit (AMU) weapons personnel will immediately respond with the necessary technical data and tools to recover and evaluate the condition. Maintenance Operation Center (MOC) will notify 8th Maintenance Squadron Armament Flight (8 MXS/MXMR) for all hung guns. 8 MXS/MXMR armament personnel will respond with at least one qualified seven-level. ***NOTE*:** Ensure aircraft with unsafe forward-firing munitions and/or gun systems are positioned facing the least hazardous direction. Personnel, vehicles, and aircraft are prohibited from passing, towing, and/or parking in front of forward-firing munitions and/or gun systems until deemed safe. ***NOTE:*** Munitions with internal batteries have potential of being activated if launch was attempted. If activated, safe all loaded stations, install ground safety pins, then isolate the aircraft until cool down period has elapsed in accordance with applicable technical orders. If 2.75 rocket motor(s) show signs of bulging, burns, soot, evidence of partial firing, or if the rocket has moved in the launcher, the weapons lead will notify the Incident Commander (IC) and request Explosive Ordnance Disposal (EOD) response.

3.3.1.1. Transient Alert/Crash Recovery will respond with a tow team, standby tow vehicle, and qualified personnel. After approval from the IC, they may chock and establish ground communication, if not already done. If weapons safing procedures are not successful and the aircraft requires shut down, Transient Alert/Crash Recovery may perform aircraft "safe for maintenance" procedures (except for the weapons system).

3.3.1.2. Hot brakes: If hot brakes are noted, alert the aircrew of the condition. DO NOT ATTEMPT TO DE-ARM THE AIRCRAFT. Request aircrew to notify ground control of the condition and declare a ground emergency.

3.3.1.3. For hung guns, if required aircrew must exit the aircraft from the right side after engine shut down.

3.3.1.4. Unit Responsibilities: See **Attachment 2** of this instruction.

3.3.2. Live Ordnance (Secure or Unsecure): Aircraft declaring hung live ordnance/gun In-Flight Emergency (IFE) will be directed to appropriate locations; primary Hot Cargo Pad (HCP) or alternate TWY A EOR spot closest to the runway. Aircraft landing on Runway (RWY) 36 will make a left 180-degree turn toward the water. (See **attachments 3, 4, and 5**)

3.3.2.1. On all hung live ordnance recoveries, the senior fire official will be the initial IC.

3.3.2.2. The IC will inform the aircrew when the incident is terminated once responding 2W1X1 personnel has confirmed that the ordnance is secure. The de-arm/responding crew will safe the entire aircraft prior to inspecting the hung ordnance. If the hung ordnance is declared safe/secure, aircrew can continue with normal taxi-back procedures. If the ordnance cannot be safed/secured, see **paragraph 3.3.2.3**

3.3.2.3. The responding weapons crew, in conjunction with EOD, will attempt to safe/secure the ordnance IAW applicable technical data. In the event the ordnance cannot be secured to the station, the safed ordnance will be downloaded and transported to the munitions storage area. After the aircraft/munitions are declared safe/secure, the IC will terminate the ground emergency and the aircraft may be towed back to its parking location.

3.3.2.4. Unsafe Gun: After approval from the IC, weapons personnel will establish communications with the aircrew and examine the rounds counter to determine if gun system rotation occurred. If gun system did not rotate, perform normal de-arm procedures, inform the IC who will terminate the IFE, and allow the aircraft to continue with normal taxi procedures.

3.3.2.4.1. If gun system rotation has occurred, shut down the aircraft, verify/install gun electrical safe pin, record rounds count, determine if rounds are chambered, and visually inspect for evidence of explosive residue/debris/damaged/loose rounds. If no rounds are chambered and no discrepancies are noted, initiate clearing procedures IAW applicable technical data (i.e. TO 1F-16CG-2-94JG-50-1 (94-50-00), *M61A1 Gun System*). Once electrically and mechanically safed, terminate the ground emergency. Aircraft may be towed to its parking location. If gun system cannot be cleared by normal means and/or evidence of explosive residue/debris/damaged/loose/chambered rounds exists, proceed to **paragraph 3.3.2.4.2** of this instruction.

3.3.2.4.2. Allow EOD to make an assessment of situation (i.e. borescope barrels, double feeds, render safe procedure, neutralize/collect loose explosive residue), once cleared by EOD, 8 MXS/MXMR armament personnel will assist AMU personnel in clearing gun IAW applicable tech data. In cases where the risk cannot be safely mitigated, weapons maintenance personnel will remove the unsafe gun for turn over to EOD. If required, gun barrels with live rounds/spent casings will be given to EOD personnel for disposal. Aircraft with an unsafe or unknown condition will not leave the area until gun is electrically and mechanically safe. Once gun is safed/cleared, the ground emergency will be terminated and aircraft may be towed to its parking location.

3.3.2.5. Unsafe Gun: The following procedures are to be used if personnel discover an unsafe gun after the aircraft has cleared the de-arm area and is on the parking ramp. ***NOTE*:** When rounds are chambered, the aircraft should be manually positioned to point in the least hazardous direction, if possible (Do not use tow vehicle). If in a HAS, close the front door.

3.3.2.5.1. Personnel discovering the hung or unsafe gun will immediately notify the flightline weapons expediter. After aircraft is shut down, personnel will attempt to mechanically and electrically safe gun.

3.3.2.5.2. If no rotation has occurred, shut down aircraft and perform gun clearing procedures using applicable technical data. If gun cannot be cleared by normal means, determine if rounds are chambered and visually inspect for evidence of explosive residue/debris/damage/loose rounds.

3.3.2.5.3. If discrepancies are noticed, declare ground emergency. Evacuate nonessential personnel and standby for fire department IC and EOD response. Refer to **paragraph 3.3.2.4.2** of this instruction.

3.3.2.5.4. If rotation has occurred, declare ground emergency and standby for fire department IC. Refer **paragraph 3.3.2.4.1** of this instruction.

3.3.2.5.5. Once the gun is safe and the IC terminates the ground emergency, the AMU production superintendent or senior squadron maintenance member present will take charge.

4. Jammed Gun System and Ammunition Handling Procedures:

4.1. **General Information:** The F-16 gun handling system consists of the M61A1 gun, ammunition drum, and associated chutes. The Ammunition Loading System (ALS), Universal Ammunition Loading Systems (UALS), and Linkless Ammunition Loading System (LALS) are used to store, transport, load, and unload 20mm ammunition.

4.1.1. Safety Precaution: Ensure gun system clearing procedures are strictly followed prior to performing maintenance on a loaded gun system IAW 1F-16CG-2-94JG-50-1 (94-50-00).

4.1.2. The following procedure will be used when a gun jam occurs during ammunition loading or unloading.

4.1.2.1. If gun jam occurs during loading or unloading immediately cease operations and contact 8 MXS/MXMR for assistance. Under no circumstances will the gun system be rotated backwards.

4.1.2.2. 8 MXS/MXMR personnel will respond with at least one qualified seven-level to determine the possible cause of the jam and course of action.

4.1.2.2.1. If there are damaged rounds and/or explosive residue present, notify MOC, declare a ground emergency, evacuate nonessential personnel, and standby for emergency response and EOD.

4.1.2.2.2. Allow EOD to make assessments of situation (i.e. borescope barrels, double feeds, render safe procedure, neutralize/collect loose explosive residue). Once cleared by EOD, maintenance personnel may proceed to safely clear gun systems IAW applicable tech data. In cases where the risk cannot be safely mitigated, weapons maintenance personnel will remove the unsafe gun for turn over to EOD. If required gun barrels with live rounds/spent casings will be given to EOD personnel for disposal. Aircraft with an unsafe or unknown condition will not leave the area until gun is electrically and mechanically safe. Once gun is safed/cleared ground emergency will be terminated.

4.1.2.3. If the jam is determined to be in the gun system, weapons maintenance personnel will isolate the problem, download the ammunition (if possible), and perform appropriate maintenance to return gun system to service.

4.1.2.4. Every effort will be made to remove all ammunition and brass from the gun system prior removing components and transporting to the 8 MXS/MXMR maintenance facility.

4.1.2.5. If the ammunition cannot be removed from the storage drums and chutes without disassembly, remove the components from the aircraft and deliver them to the 8 MXS/MXMR maintenance facility.

4.1.2.6. If the jam is in the ALS/Universal Ammunition Loading System (UALS)/LALS, annotate the Air Force Technical Order (AFTO) Form 244, *Industrial/Support Equipment Record,* and transport the equipment to 8 MXS Munitions Storage Area for ammunition removal. If unable to remove the live rounds/spent casings. Then take the ALS/UALS/LALS to the Armament Flight maintenance facility for repair and removal of ammunition.

4.1.2.7. Live rounds will be separated from spent brass and placed in 20mm cans. Cans will be marked with stock number, nomenclature, quantity and aircraft tail number, or ALS/UALS/LALS serial number.

5. Armament Flight Handling and Maintenance Procedures:

5.1. **Responsibilities:** Armament system technicians are responsible for performing clearing tasks on jammed M61A1 Guns/Handling Systems and ammunition loading systems (ALS, UALS, and LALS) after receipt in the Armament Systems Flight. The 8 MXS/MXMR Flight Chief, Maintenance Section Chief, and/or Non-Commissioned Officer in Charge (NCOIC)s are responsible for ensuring strict compliance to applicable technical data and explosive safety standards. Ensure a pre-task safety brief is conducted.

5.2. When the jammed system is delivered to the armament systems building (Bldg. 2222), post explosive placards, and notify MOC (Fire symbol 2-HEI/HEIT; Fire symbol 4-TP/API/API- T/APT). Jammed gun systems will point east towards the exterior wall. The gun room doors will be closed during clearing operations. MOC will notify the Fire Department, Munitions Control, Quality Assurance (QA), and 8 FW/SE.

5.3. The F-16 Gun Handling System, ALS, UALS, or LALS will be grounded immediately upon entry into the gun room/maintenance bay.

5.4. **Personnel Limits:** During explosive operations, the following personnel limits exist:

5.4.1. As a maximum, one supervisor (qualified seven level), three maintenance technicians, and two casuals (i.e. Safety, QA).

5.4.2. As a minimum, one supervisor (qualified seven level) and two maintenance technicians.

5.4.3. Personnel not involved in the operation are prohibited from visiting. This does not include official visits by casuals provided personnel limits are not exceeded.

5.5. **Explosive Limits:** Explosive limits will not exceed the capacity of the system undergoing maintenance.

5.6. **Equipment Requirements:**

5.6.1. Ground wire.

5.6.2. Tool kit.

5.6.3. Empty 20mm ammunition cans.

5.6.4. Two fire extinguishers rated at a minimum of 2 A: 10 BC will be available for immediate use.

5.7. **Emergency Action Procedures:** In the event of fire, remove munitions and evacuate personnel from facility. Safe evacuation distance is 2,500 feet for 1.2 and 300 feet for 1.4 explosives. The ranking individual will ensure all personnel are evacuated and MOC or the 8th Civil Engineering Fire Department (8 CES/CEF) have been notified. Fire may be fought until explosives become engulfed in flames.

5.8. Personnel will ground themselves using a slap bar prior to and while handling of 20mm ammunition. ***NOTE:*** Gun system, ALS/UALS/LALS components, and ammunition containers containing live ammunition will be grounded at all times during these operations.

5.9. Garments will not be donned/doffed during explosives operations. If garments must be put on or removed, personnel will leave the clearing operation and ground themselves prior to returning. Personnel will remove all watches, rings, and any other jewelry prior to entering the gun room when live ammunition is present.

5.10. The procedures outlined in TOs 11W1-12-4-32, *Intermediate Maintenance Instructions M61 and M61A1 20mm Automatic Guns,* 11W1-7-16-2, *Intermediate and Depot Maintenance Instructions F-16 Aircraft Ammunition Handling Set,* 35D30-4-10-1, *Operation and Maintenance Instructions Intermediate for 20MM Ammunition Loading System Loader Assembly,* and 35D30- 4-15-1, *Operating and Maintenance Instructions for 20MM Universal Ammunition Loading System* will be followed for the removal of ammunition and inspection of the gun barrels/handling systems. Ammunition and explosive residue will be handled IAW Defense Explosives Safety Regulation (DESR) 6055.09_AFMAN 91-201, *Explosives Safety Standards.*

5.11. All live rounds and spent brass will be removed from M61A1 Gun/Handling Systems and ALS/UALS/LALS prior to performing any repair actions to prevent accidental damage to rounds and/or injury to personnel. Non-EOD personnel will not attempt to remove any live ammunition that is jammed in a gun barrel under any circumstances.

5.11.1. Live rounds will be separated from spent brass and placed in 20mm cans. Cans will be marked with stock number, nomenclature, quantity and aircraft tail number or ALS/UALS/LALS serial number.

5.11.2. Explosive residue from the Gun/Handling System, ALS, UALS, or LALS will be placed in 20mm ammunition cans filled with water. The container should be clearly marked "Scrap Explosives."

5.11.3. When all 20mm ammunition and explosive residue is removed from the affected system, ammunition cans will be secured and the contents marked on the outside of the cans. Notify Munitions Control that ammunition cans are ready for pickup. Ammunition and explosive residue must be removed from the 8 MXS/MXMR within 24 hours. After 20mm ammunition is removed from the area, remove fire symbol signs and notify MOC.

6. Impoundment of Aircraft/Equipment with Hung Ordnance or Jammed Gun:

6.1. Refer to AFI 21-101 and applicable supplements for normal impoundment procedures not otherwise stated below.

6.2. **Hung Ordnance:**

6.2.1. If troubleshooting has determined the cause to be normally installed equipment/alternate mission equipment, the aircraft may be released from impoundment and the impound may transfer to the affected equipment.

6.2.2. Equipment will then be delivered to 8 MXS/MXMR with an AFTO Form 350, *Repairable Item Processing Tag*, attached and bordered in red with the word "IMPOUNDED" written in red on the bottom. Any further actions will be accomplished IAW normal impoundment procedures.

6.3. **Gun Impoundments:**

6.3.1. Attach an AFTO Form 350 to the gun immediately after removal from aircraft and bordered in red with the word "IMPOUNDED" written in red on the bottom.

6.3.2. Gun Jams: After respective AMU weapons and 8 MXS/MXMR personnel complete safing procedures, the AMU will make recommendation to the authorized authority for impoundment.

6.3.3. Aircraft must be impounded when items are missing from the gun and/or bay and cannot be located. If a thorough search of the aircraft is unsuccessful, establish a separate impoundment for the gun handling system and deliver to 8 MXS/MXMR.

6.3.4. Aircraft must be impounded for uncommanded gun firing or rotation.

6.3.5. The 8 MXS/MXMR will determine the level of disassembly required to perform a thorough search for lost items in the gun or ammunition handling set. All gun system components will be thoroughly inspected for serviceability after a gun jam. Releases from impoundment and any further actions will be accomplished IAW normal impoundment procedures.

CHRISTOPHER B. HAMMOND, Colonel, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFPD 21-1, *Maintenance of Military Material,* 01 Aug 2018

AFI 21-101, *Aircraft and Equipment Maintenance Management,* 16 Jan 2020

AFI 33-322, *Records Management and Information Governance Program,* 23 Mar 2020

AFI 11-2F-16V3_8FWSUP, *F-16 - Operations Procedures,* 29 Apr 2014

DESR 6055.09_AFMAN 91-201, *Explosive Safety Standards,* 28 May 2020

TO 1F-16C-33-1-2, *Nonnuclear Munitions Loading Procedures,* 15 Jun 2016

TO 1F-16CG-2-94JG-50-1 (94-50-00), *M61A1 Gun System,* 1 Jan 2012 (Change 3, 1 Nov 2016)

TO 11W1-12-4-32, *Intermediate Maintenance Instructions M61 and M61A1 20mm Automatic Guns,* 8 Jun 2010 (Change 3, 5 Oct 2014)

TO 11W1-7-16-2, *Intermediate and Depot Maintenance Instructions F-16 Aircraft Ammunition Handling Set,* 1 Dec 2010 (Change 6, 8 Jul 2016)

TO 35D30-4-10-1, *Operation and Maintenance Instructions Intermediate for 20MM Ammunition Loading System Loader Assembly,* 19 Sep 2014 (Change 2, 23 Oct 2015)

TO 35D30-4-15-1, *Operating and Maintenance Instructions for 20MM Universal Ammunition Loading System,* 10 May 2014 (Change 6, 31 May 2016)

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AFTO Form 244, *Industrial/Support Equipment Record*

AFTO Form 350, *Repairable Item Processing Tag*

Abbreviations and Acronyms

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPD—Air Force Policy Directive

AFRIMS—Air Force Records Information Management System

AFTO—Air Force Technical Order

ALS—Ammunition Loading System

AMU—Aircraft Maintenance Unit

DESR—Defense Explosives Safety Regulation

ECC—Emergency Communication Center

EOD—Explosive Ordnance Disposal

EOR—End of Runway

EPU—Emergency Power Unit

FACC—Fire Alarm Control Center

FW—Fighter Wing

HAS—Hardened Aircraft Shelter

HCP—Hot Cargo Pad

IAW—In Accordance With

IC—Incident Commander

IFE—In-Flight Emergency

IPL—Immediately Prior to Launch

LALS—Linkless Ammunition Loading System

MOC—Maintenance Operation Center

NCOIC—Non-Commissioned Officer in Charge

OPR—Office of Primary Responsibility

QA—Quality Assurance

RDS—Records Disposition Schedule

RWY—Runway

SFO—Senior Fire Officer

TO—Technical Orders

TP—Target Practice

TWY—Taxiway

UALS—Universal Ammunition Loading System

8FW/SE—8th Fighter Wing Safety Office

8OG/CC—8th Operations Group Commander

8MXG/CC—8th Maintenance Group Commander

8MXS/MXMR—8th Maintenance Squadron Armament Flight

8AMXS—8th Aircraft Maintenance Squadron

8SFS/SFCC—8th Security Forces Squadron, Security Forces Control Center

8CES/CEF—8th Civil Engineering Squadron Fire Department

Terms

Explosive Areas—Areas designated for parking explosive loaded aircraft as defined in the explosive loaded aircraft-parking plan. (Base Map Tab D-8, available at 8 FW Weapons Safety Office)

Explosive Loaded Aircraft—An aircraft is considered "explosive loaded" when it is carrying non-nuclear munitions or explosives, to include impulse cartridges. (Except ACES II seats and items listed in TO 11A-1-33, paragraph 4e.).

Explosive Operations—The in shop handling of 20mm ammunition by 8 MXS/MXMR.

Explosive Residue—Spilled 20mm ammunition propellant.

Gun Clearing—Steps taken to ensure no live rounds are chambered and the gun is safe.

Jammed Gun—Gun system that cannot be cycled due to malfunction.

Render Safe—explosive ordnance disposal procedures involving the application of special explosive ordnance disposal methods and tools to provide for the interruption of functions or separation of essential components of unexploded explosive ordnance to prevent an unacceptable detonation.

2W1X1—Aircraft Armament Systems

2A3X3—Tactical Aircraft Maintenance

BDU—Bomb Dummy Unit

Attachment 2

EMERGENCY RESPONSE CHECKLIST (HUNG/DAMAGED ORDNANCE & JAMMED GUN)

A2.1. Hung Free Fall Live Ordnance: Aircraft will be directed to hot cargo pad.

A2.2. 8CES/CEF Senior Fire Officer (SFO) (the on-scene commander):

A2.2.1. Chock aircraft.

A2.2.2. Establish communication with aircrew and determine aircraft fire safe.

A2.2.3. Clear AMU weapons personnel into area for safing.

A2.2.4. Clear EOD personnel into area if AMU weapons are not successful.

A2.2.5. Clear Transient Alert/Crash Recovery in if needed.

A2.2.6. If the aircraft CAN be safed, release aircraft back to unit and may taxi.

A2.2.7. Terminate IFE/Ground Emergency as applicable.

A2.2.8. If the aircraft CANNOT be safed, it will be shutdown.

A2.2.9. Once the aircraft is safed, release aircraft back to unit and tow.

A2.2.10. Terminate IFE/Ground Emergency as applicable. ***NOTE:*** During the above and below actions, the on-scene commander or designated representative should plot a cordon as soon as possible based upon the applicable withdrawal distance for the munition(s) involved.

A2.3. Crash Recovery:

A2.3.1. If required, perform Hot Brake check and notify on-scene commander of status.

A2.3.2. If required, perform aircraft recovery procedures (Install landing gear, arresting hook and EPU pins). Notify on-scene commander when completed.

A2.4. Aircraft Maintenance Unit Weapons Personnel:

A2.4.1. Safe aircraft armament system IAW AMU procedures and safety protocols.

A2.4.2. If EOD is required, assist with secure/unload munitions. ***NOTE:*** If any abnormal condition exists and the armament system cannot be safed, notify the on-scene commander immediately.

A2.5. EOD Personnel:

A2.5.1. If weapons personnel are unsuccessful in safing, perform render safe procedures. ***NOTE:*** If any abnormal condition exists and the ordnance cannot be rendered safe, notify the on-scene commander immediately.

A2.5.2. Notify on-scene commander of status.

A2.6. Weapons Standardization Section (Loading Standardization Crew).

A2.6.1. Respond to both in-flight and ground emergencies for hung ordnance on all non-F-16 MDS US inventory aircraft.

A2.7. 8MXS/MXMR:

A2.7.1. Remain on standby and render assistance with Jammed/Hung Guns as required.

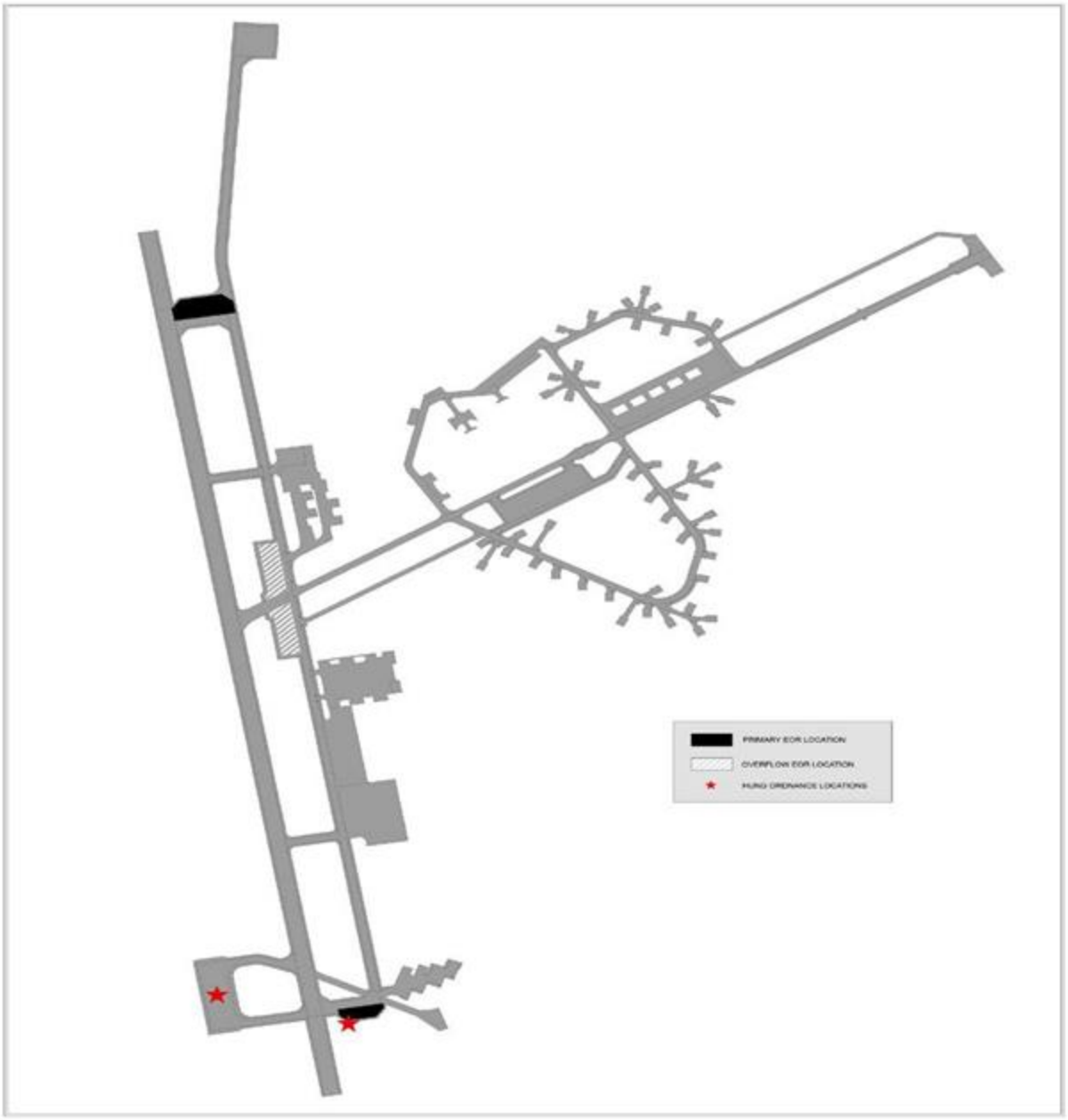
A2.8. 8 SFS.

A2.8.1. Establish and maintain integrity of cordon as required.

Attachment 3

EOR AND HUNG ORDNANCE LOCATIONS

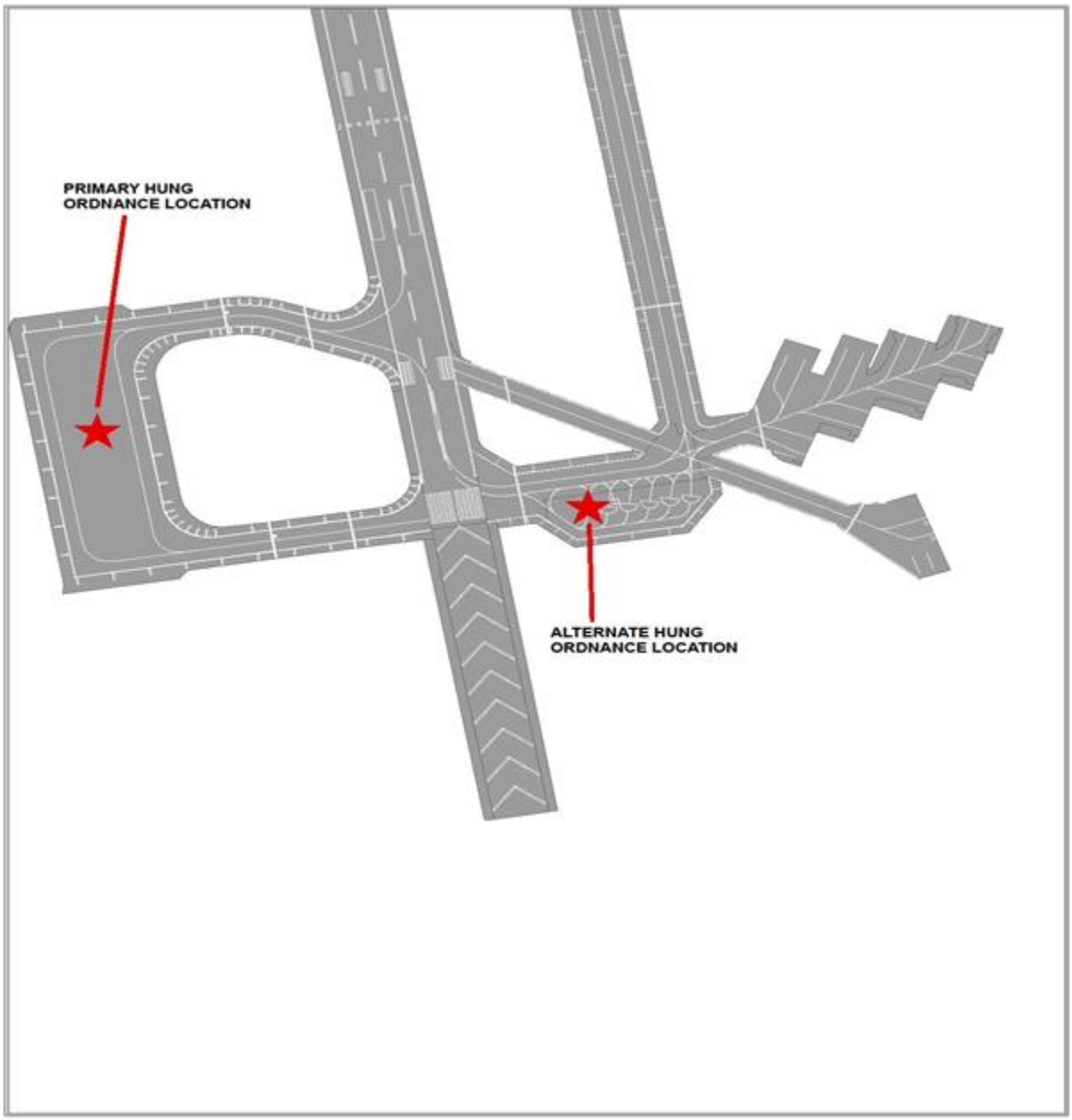
Figure A3.1. EOR and Hung Ordnance Locations.



Attachment 4

HUNG ORDNANCE LOCATIONS

Figure A4.1. Hung Ordnance Locations.



Attachment 5

KUNSAN AIRFIELD DIAGRAM

Figure A5.1. Kunsan Airfield Diagram.