

**BY ORDER OF THE COMMANDER
SPANGDAHLEM AB (USAFE)**

**SPANGDAHLEM AIR BASE INSTRUCTION
21-104**



9 APRIL 2015

Maintenance

AIRCRAFT FUEL SYSTEMS REPAIR

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at www.e-publishing.af.mil for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 52 CMS/MXMCF

Certified by: 52 CMS/CC
(Maj David Marce)

Supersedes: SPANGDAHLEMABI21-104,
20 February 2009

Pages: 14

This instruction implements Air Force Policy Directive (AFPD) 21-1, *Air and Space Maintenance*, establishes procedures and responsibilities for aircraft maintenance in building 364 (Hangar 5), the primary fuel system repair facility, all secondary or alternate fuel system repair areas (hardened aircraft shelters [PAS]/open ramps) and hydrazine maintenance areas. This instruction is applicable to all organizations under the jurisdiction of the 52d Fighter Wing (52 FW). Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363_USAFESUP, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://www.my.af.mil/gcss-af61a/afirms/afirms/rims.cfm>. 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 chain of command.

SUMMARY OF CHANGES

This document has minor changes to include: Location of operations, Hydrazine Response Procedures, and the minor maintenance list has been updated. External fuel tanks processing procedures for TDY/Deployments has been added. All procedures have been aligned with Technical Order 1-1-3 requirements.

1. Fuel Systems Repair.

1.1. Open Fuel Tank Maintenance.

1.1.1. General:

1.1.1.1. Major maintenance is any time an individual must enter a fuel tank to perform repair actions or a confined space field permit is initiated. In unique situations, determination of what constitutes open fuel tank (major) maintenance and externally mounted components (minor) maintenance will be made by the 52d Component Maintenance Squadron (52 CMS) Fuel Systems Section Chief/shift supervisor.

1.1.1.2. Concurrent maintenance may be done during actual fuel system maintenance. However, all concurrent maintenance must be coordinated through, and is at the discretion of the 52 CMS Fuel Systems Section Chief/shift supervisors.

1.1.1.3. All non-fuel system repair personnel required to perform in-tank maintenance must meet the requirements mandated in Technical Order (TO) 1-1-3, *Inspection and Repair of Aircraft Integral Fuel Tanks and Fuel Cells*, paragraph 1.5.1.2. Qualification will be tracked in the Integrated Maintenance Data System (IMDS) using course code 32091 and 29091, Fuel Cell Entry/C-Space and Respiratory Protection.

1.1.1.4. A qualified three-person Fuel System Repair Team (one team member will be a fully qualified 7-skill level), Air Force Specialty Code (AFSC) 2A6X4, will be required per shift for aircraft open fuel tank maintenance at any deployed location and home station.

1.1.1.5. Fuel Systems personnel will only perform wing/tail walker duties for aircraft from Hangar 5 to the south ramp directly outside the hangar doors not to encroach on the taxiway or vice versa.

1.1.2. Location of Operation:

1.1.2.1. Open tank and temporary maintenance areas are listed in the "Authorized PAS for Open Fuel Tank Maintenance" memorandum or Master Entry Permit (MEP) for the Fuel Systems Repair Facility. This memorandum is approved by 52 CMS/CC, 52 Civil Engineer Squadron (CES) Fire Chief and Emergency services, 52 Aerospace Medicine Squadron (AMDS) Bioenvironmental Engineering, 52 FW Ground Safety, and 52 Maintenance Group Commander (MXG/CC). The memorandum and MEP are maintained in the 52 CMS Fuel Systems Section.

1.1.2.2. Building 364 (Hangar 5) is the primary fuel system repair facility for all fuel system related aircraft maintenance on all assigned aircraft. All major maintenance will be performed in Hangar 5 unless mission requirements dictate use of a Temporary Repair Facility.

1.1.2.3. Temporary Repair Facilities. Temporary facilities shall only be used after consideration is given to the timely availability of approved primary/alternate repair facilities/open areas. They shall not be considered strictly for ease of maintenance (e.g., to prevent towing of aircraft), but rather as a last resort during peak workloads

to prevent mission degradation. All proposed fuel system repair areas must be coordinated through the Fuel Systems Section Chief and in accordance with Technical Order 1-1-3 Para 3.2.5.

1.1.2.4. Deployed Fuel Systems Technicians will: Upon arrival at deployed locations ensure that host base agencies or equivalents are familiar with the dangers and procedures associated with fuel system maintenance. Fuels Systems personnel will visit with the local Fire Department and discuss procedures and maintenance locations.

1.1.3. Responsibilities:

1.1.3.1. 52 CMS Fuel Systems Section Chief/shift supervisors will:

1.1.3.1.1. Ensure the 52 Aircraft Maintenance Squadron (AMXS) tow team supervisor has completed and signed the hangar entrance checklist and delivered aircraft forms prior to accepting aircraft for maintenance. Ensure a qualified fuel systems technician reviews the forms before acceptance. Furthermore, ensure sufficient space remains in front of the aircraft to permit emergency towing. Equipment, vehicles or aircraft will not be parked directly in front of any aircraft involved in fuel systems maintenance. An aircraft tow bar/equivalent will be located in the facility during all fuel system maintenance to facilitate emergency towing. Comply with aircraft hangar checklist and have tow bar/equivalent readily available for emergency extraction while fuel systems maintenance is being performed.

1.1.3.1.2. Ensure personnel annotate applicable aircraft Air Force Technical Order (AFTO) Form 781A, *Maintenance Discrepancy and Work Document*, (as an "Info Note"), to reflect required fuel configuration or other required preparations for fuel systems maintenance/troubleshooting prior to maintenance.

1.1.3.1.3. Ensure removal of Air Force (AF) Forms 1492, *Warning Tags*, installed for fuel system maintenance when all open fuel tank repairs have been completed.

1.1.3.1.4. Ensure all personnel performing open fuel cell maintenance have been properly trained and training has been documented.

1.1.3.1.5. Ensure personnel have all required equipment and Personal Protective Equipment to properly and safely perform open fuel cell maintenance.

1.1.3.2. 52 AMXS will:

1.1.3.2.1. Coordinate with 52 CMS Production Supervisor and 52 CMS Fuel Systems Section when determining fuel system maintenance requirements.

1.1.3.2.2. Coordinate with 52 CMS Fuel Systems Section to determine aircraft maintenance preparations (fuel configuration, panels pulled, etc.) prior to towing to Hangar 5 or an authorized fuel system repair area.

1.1.3.2.3. Complete the following prior to open fuel system/tank maintenance:

1.1.3.2.3.1. Comply with aircraft hangar entrance checklist and ensure tow bar/equivalent is readily available for emergency extraction while fuel systems maintenance is being performed.

1.1.3.2.3.2. Disconnect aircraft battery prior to fuel systems maintenance.

1.1.3.2.3.3. explosives and inert training munitions are downloaded/removed IAW TO 1-1-3 para 2.7.7.1 and 11A-1-33 para 1.3 step d and para 2.4. Ensure stores other than munitions, i.e. URITS Pods, ECM Pods, etc. are safed prior to open fuel tank maintenance.

EXCEPTION: Munitions (live and dummy) do not have to be downloaded if the maintenance task requires removal/replacement, inspection, and test of externally mounted fuel systems components only.

1.1.3.2.3.4. rms and -21 equipment accompany aircraft to repair facility/area.

1.2. Minor Maintenance.

1.2.1. Maintenance is considered minor when it involves removal or replacement of externally mounted fuel system components. These tasks do not require tank entry as defined by TO 1-1-3.

1.2.2. Minor fuel system maintenance may be performed in a PAS, phase dock, structure or ramp as outlined in TO 1-1-3. Aircraft configuration will comply with open tank maintenance checklist.

1.2.3. Access to aircraft will be limited during fuels system maintenance. Only necessary personnel will be allowed in the area while fuel system maintenance is in progress. Personnel requiring access to remove or install components to facilitate other maintenance will be escorted into the repair area by 52 CMS Fuel Systems Section personnel. Aircraft will be roped off to limit access.

1.2.4. At any time, the Fuels Systems Repair Section Chief/Shift lead can direct the aircraft to be worked in the Primary Fuel Systems Repair area (Hanger 5). i.e. Due to lack of Fuels Systems Repair manning, in depth troubleshooting, etc...

1.2.5. The following minor maintenance may be performed in any PAS and phase dock:

1.2.5.1. Engine fuel feed lines (F-16).

1.2.5.2. Pressure switches (F-16).

1.2.5.3. Turbine pumps (F-16).

1.2.5.4. Fuel flow transmitter (F-16).

1.2.5.5. Single-point refueling/defueling adapters (F-16).

1.2.5.6. Air check valves (F-16).

1.2.5.7. Valve motors/actuators (F-16).

1.2.5.8. Air refueling receptacles (F-16).

1.2.5.9. Fuel/air quick disconnects (F-16).

1.2.5.10. Internal wing top mounted probes (F-16).

1.2.5.11. Refuel/transfer override control valve and switch (F-16).

1.2.5.12. Fuel distribution trim valve (F-16).

- 1.2.5.13. 7-level inspection under internal wing access panels (F-16).
- 1.2.5.14. Remove plexiglas test panel, 7-level inspection and install aircraft panel (F-16).
- 1.2.5.15. Main fuel shut-off valve (F-16).
- 1.2.5.16. Wing refuel float shut off valves (F-16)
- 1.2.5.17. Wing external tank refuel transfer shut off valves (F-16)

2. Hydrazine.

2.1. Maintenance and Spills/Leaks.

2.1.1. General:

2.1.1.1. A qualified Hydrazine Response Team (HRT) consisting of three fuel systems personnel (one team member will be a fully qualified 7-skill level), AFSC 2A6X4, will be on duty during F-16 flying operations for all shifts of a normal duty day. Other times, 52 MXG Maintenance Operations Center or 52 CMS production superintendent using telephone standby procedures will contact fuel system personnel to report for duty. In conjunction with other emergency personnel, the HRT is responsible for hydrazine management to include detection, containment, neutralization, and clean-up.

2.1.1.1.1. A deployment HRT, along with a complete hydrazine field kit, as outlined in TO 1F- 16CJ-2-49GS-00-1, *General System--Emergency Power System*, will be available on deployments with F-16 aircraft. Based on F-16 deployment site host hydrazine support capabilities and number of aircraft (i.e. Four or more), a qualified three person Hydrazine Response Team (per para 2.1.1.1.) will be required per shift with capability to handle hydrazine-related maintenance including detection, containment, neutralization, and clean-up.

2.1.1.1.2. Deployed Fuel Systems Technicians will: Upon arrival at deployed locations ensure that host base agencies or equivalents are familiar with the dangers and procedures associated with hydrazine and hydrazine response procedures (this briefing will be informative in nature). Fuels Systems personnel will visit with the local Fire Department and discuss response procedures and maintenance locations.

2.1.1.1.3. At F-16 deployed locations without a designated H-70 maintenance area, HRT member will coordinate with local offices for an approved area IAW 1F-16CJ-2-49GS-00-1.

2.1.1.2. Any leakage of clear liquid in the vicinity of the F-16 Emergency Power Unit (EPU) exhaust or compartment drains/area will be treated as a hydrazine leak until HRT determines otherwise.

2.1.1.3. HRT availability is not a requirement for such situations as cross-country return operations of three aircraft or less.

2.1.1.4. The HRT will not start clean-up procedures on any spill until a decontamination area is set up.

2.1.1.5. The HRT will be one of the first response teams allowed into an F-16 crash site to locate/secure the hydrazine tank and contain any spilled hydrazine. The HRT will ensure personnel are not exposed to hydrazine above the permissible exposure limit.

2.1.1.6. All 52 FW F-16 aircrew and maintenance personnel will receive hydrazine training. Individual training will be tailored based on potential of exposure.

2.1.1.6.1. Aircrew will receive initial and refresher training from their respective Operations Group training personnel or standardization and evaluation section. This briefing will be informative in nature and shall cover EPU fire indications, aircraft emergency evacuation procedures, and aircraft recovery at non-F-16 flying locations.

2.1.1.6.2. All maintenance personnel will receive initial training during Block 1, Mission Orientation. This training will be documented and tracked in IMDS, using course code 006096.

2.1.1.7. All members of the HRT, AFSC 2A6X4, must attend initial and annual training provided by qualified instructors in the 52 CMS Fuel Systems Section. This training will be tracked in IMDS using course code 21027.

2.1.1.8. The 52 CMS Fuel Systems Section will provide qualification and/or familiarization training for hydrazine leak detection to any individual deemed essential and coordinated through 52d Maintenance Operations Flight (52 MOF) Maintenance Training Section. Essential personnel include, but are not limited to, Crash Recovery, Transient Alert, and Fire Department personnel.

2.1.1.9. All hydrazine spills/leaks will be handled by the HRT. The HRT will respond to all spills to establish containment and stop the leak source.

2.1.2. Location of Operations:

2.1.2.1. Hydrazine maintenance areas are listed in the "Authorized PAS for Hydrazine Maintenance" memorandum approved by 52 CMS/CC, 52 CES Fire Chief and Emergency services, 52 Operations Support Squadron (OSS) Chief of Airfield Management, 52 AMDS Bioenvironmental Engineering, 52 FW Ground Safety and 52 MXG/CC. The memorandum is maintained in the 52 CMS Fuel Systems Section. IAW TO 1F-16CJ-2-49GS-00-1, aircraft requiring hydrazine maintenance may be placed inside these PASs only during inclement weather.

2.1.2.2. The following EPU system maintenance will be accomplished only at an approved hydrazine maintenance location:

2.1.2.2.1. EPU system disconnect

2.1.2.2.2. EPU system purge

2.1.2.2.3. EPU system reconnect

2.1.2.2.4. EPU hydrazine tank removal and installation

2.1.2.2.5. EPU system line/manifold removal and installation

2.1.2.2.6. EPU system mono-propellant operational check

2.1.2.3. Once the hydrazine tank has been disconnected from the EPU, the system has been purged, and AFTO Form 781A reflects a safe condition, routine maintenance on the EPU system can be accomplished at any maintenance spot, with the exception of hydrazine tank replacement which will require the aircraft be located at an approved hydrazine maintenance location.

2.1.3. Responsibilities:

2.1.3.1. 52 CMS Fuel Systems Section will:

2.1.3.1.1. Provide hydrazine training to any personnel who have a legitimate requirement.

2.1.3.1.2. If a HRT is not deploying, a briefing and reference material will be provide to deploying AMXS production supervisor to support briefing host nation agencies.

2.1.3.1.3. Provide a fully trained and equipped HRT to support F-16 aircraft in the event of EPU activation and/or hydrazine spill/leak. Complete applicable portions of the EPU activation checklist for all EPU activations whether commanded or uncommanded.

2.1.3.1.4. Be responsible for the removal/installation of the following:

2.1.3.1.4.1. Hydrazine detection pellet (when contaminated by hydrazine).

2.1.3.1.4.2. EPU heat exchanger.

2.1.3.1.4.3. Hydrazine fuel storage tank.

2.1.3.1.4.4. Decomposition chamber catalyst.

2.1.3.1.4.5. Nitrogen control valve.

2.1.3.1.4.6. Purging the hydrazine fuel hose and nitrogen hose.

2.1.3.1.4.7. Purging the EPU.

2.1.3.1.4.8. Depressurization of the hydrazine storage tank.

2.1.3.1.4.9. Decomposition chamber bed depth measurement.

2.1.3.1.4.10. Refurbishment of the decomposition chamber poppet valve.

2.1.3.2. 52 AMXS will:

2.1.3.2.1. Declare a ground emergency and notify 52 MXG/Maintenance Operation Center (MOC) of possible EPU firing.

2.1.3.2.2. Ensure squadron personnel do not attempt to verify the presence of hydrazine. A trained and properly equipped HRT will perform detection/verification procedures.

2.1.3.2.3. Ensure personnel that detect an ammonia-like odor near an aircraft suspected of an EPU activation are examined immediately by medical personnel for possible exposure to hydrazine.

2.1.3.2.4. Move individuals, exposed or suspected of being exposed to hydrazine, 300 feet upwind of affected aircraft. Instruct those individuals to sit down if possible, immediately remove all contaminated clothing and place downwind, and wait in the upwind location for fire protection personnel and medical assistance to arrive.

2.1.3.2.5. Immediately evacuate all non-essential and non-exposed personnel a minimum of 300 feet up wind of mishap aircraft and marshal all non-affected aircraft out of the mishap area.

2.1.3.2.6. Isolate area, establish 300 foot cordon, deny entry to all non-emergency personnel and turn area over to the 52 CES Fire Department upon arrival.

2.1.3.2.7. If spill is inside of a building or hangar, evacuate all personnel and secure the facility.

2.1.3.2.8. Ensure completion of Technical Assistance Office EPU activation checklist by appropriate personnel.

2.1.3.2.9. Send a designated representative (after activation/spill containment is over) to debrief HRT team leader of status of the aircraft, prepare the aircraft for routine EPU maintenance and tow the aircraft to authorized hydrazine maintenance repair area.

2.1.3.2.10. Leak check the decomposition chamber.

2.1.4. Deployed AMXS Production Supervisors will:

2.1.4.1. Upon arrival at deployed locations, when fuels systems personnel are not deployed, ensure that host base agencies or equivalents are familiar with the dangers and procedures associated with hydrazine and hydrazine response procedures (this briefing will be informative in nature). Fuel system repair will brief deploying super prior to departure.

2.1.5. 52 CES Fire Department will:

2.1.5.1. Will establish and maintain a 300 foot perimeter in all directions with an entry control point (ECP) and will set up a decontamination area at 150 foot cordon, and determine if and when the cordon needs to be adjusted to the situation.

2.1.5.2. Initiate emergency decontamination for all exposed personnel. Thoroughly wash exposed skin areas/eyes for a minimum of 15 minutes (ensure exposed personnel do not leave the upwind safe area unless instructed to do so by the medical evaluation team). Direct all exposed personnel to report to medical facility per instructions of medical team.

2.1.5.3. Serve as the on-scene commander, usually the Senior Fire Official, until the response is terminated. At that time, responsibility falls on the primary response team/office (i.e. crash recovery for barrier engagements or the HRT for routine leak/spill clean-up). Per Spangdahlem Instruction (SABI) 32-2001, *The Fire Protection Operations and Fire Protection Program*

- 2.1.5.4. Designate a person to man the HRT Entry Control Point to facilitate communications between Security Forces, Fire Department, HRT and Maintenance Operations Center (MOC).
- 2.1.5.5. Ensure personnel don appropriate personal protective equipment prior to entering affected area to render assistance, if any person passes out, runs out of air or is otherwise injured.
- 2.1.5.6. Set up decontamination area prior to the HRT entering spill/leak area to clean up or stop leak.
- 2.1.5.7. Ensure air crew has placed the EPU mode switch in the "Off" position once aircraft is parked.
- 2.1.5.8. Ensure air crew has positioned the aircraft in the nose or left wing up wind positioned prior to shut down and egress.
- 2.1.6. 52 AMDS Bioenvironmental Engineer will:
 - 2.1.6.1. Respond to hydrazine leaks/spills once the HRT has confirmed contamination.
 - 2.1.6.2. Test all waste solutions for neutralized hydrazine and low chlorine content prior to disposal.
 - 2.1.6.3. Advise HRT on waste disposal procedures.
- 2.1.7. 52 Security Forces Squadron (SFS) will:
 - 2.1.7.1. Assist personnel evacuation and establishment of a 300-foot cordon. Cordon-off distance may be extended as deemed necessary by the Fire Department. Establish an Entry Control Point upwind of the response/spill area and maintain the protective cordon until released by the on-scene commander.
 - 2.1.7.2. Enlarge or reduce cordon area per on-scene commander instructions.
- 2.1.8. 52 MXG STAFF/MXOC will:
 - 2.1.8.1. Ensure emergency response vehicles are directed to the response area and track the leak/spill clean-up progress.
 - 2.1.8.2. Initiate Emergency Check Sheet 7 and notification to all required agencies.
- 2.2. EPU Monopropellant Tester Management.
 - 2.2.1. Location of Operations:
 - 2.2.1.1. Any approved hydrazine maintenance area.
 - 2.2.1.2. Hydrazine maintenance facility (Building 630).
 - 2.2.2. Responsibilities:
 - 2.2.2.1. 52 CMS Fuel Systems Section will:
 - 2.2.2.1.1. Inspect/purge EPU testers as required after each use and prior to turn in to Test, Measurement, and Diagnostic Equipment (TMDE) for calibration.
 - 2.2.2.1.2. Ensure the tester and lines are purged and inspected for leaks prior to

returning the tester to AMXS for issue or calibration.

2.2.2.1.3. After inspection/purge is complete, Fuel Systems Section will document and attach an AFTO Form 350, *Repairable Item Processing Tag*, annotate AFTO Form 244, *Industrial/Support Equipment Record*, stating condition of EPU tester, and place an AFTO Form 255, *Notice Certification Void When Seal is Broken*, certification seal to side of tester upon completion of all requirements. 52 AMXS will then be notified that the unit is ready for pick-up.

2.2.2.2. Agencies owning EPU testers will:

2.2.2.2.1. Deliver testers to Building 364 after each use for inspection/purge with a new filter. Place a red X in the AFTO Form 244, stating date removed and aircraft tail number the tester was last used on. **WARNING:** Failure to inspect/purge a tester after each use may expose personnel to hydrazine while operating/maintaining the EPU tester.

2.2.2.2.2. Deliver tester to TMDE after ensuring Fuel Systems Section has attached an AFTO Form 255, on the side of the container to ensure the integrity of the unit. **NOTE:** If the seal is broken by other than TMDE personnel, the tester must be returned to the fuel section to be inspected, purged and sealed.

2.2.2.2.3. Pick-up the EPU tester from Fuel Systems Section when notified that the tester is ready. Ensure the tester is serviceable and ready for use prior to leaving with the tester.

3. External Fuel Tank Maintenance.

3.1. Location of Operations:

3.1.1. Building 364 (Hangar 5) is the primary facility for external fuel tank repairs.

3.1.2. Temporary Repair Facilities. Temporary facilities shall only be used after consideration is given to the timely availability of approved primary/alternate repair facilities/open areas. They shall not be considered strictly for ease of maintenance (e.g., to prevent towing of aircraft), but rather as a last resort during peak workloads to prevent mission degradation. All proposed fuel system repair areas must be coordinated through the Fuel Systems Section Chief and in accordance with TO 1-1-3 Para 3.2.5.

3.2. Responsibilities:

3.2.1. 52 CMS Fuel Systems Section will:

3.2.1.1. Acknowledge receipt of external fuel tanks with AFTO Form 350 and an IMDS snapshot, screen 122, for tanks requiring repair/inspection. Annotate tank in processing and out processing tracking log when tank arrives and leaves section respectively. Personnel accepting or issuing a tank will ensure 52 AMXS personnel print and sign in the log for accountability purposes. Due to personnel availability and aircraft work load, the issuing and accepting of tanks should be coordinated through 52 CMS Production Supervisor.

3.2.1.2. Provide an area for temporary storage of unserviceable external fuel tanks. This area is located on Northeast side of Hangar 5 inside the ropes.

- 3.2.1.3. Generate an off-equipment work order, and provide a IMDS snapshot and AFTO Form 350 for each external fuel tank provided to 52d Equipment Maintenance Squadron (52 EMS) Aircraft Structural Maintenance Section for repair. Completely drain, purge and properly tag all external fuel tank components with appropriate discrepancy or condition.
- 3.2.1.4. Order external tank parts/supplies using IMDS.
- 3.2.2. 52 AMXS will:
- 3.2.2.1. Maintain physical security and accountability for all external fuel tanks owned by their squadron. A Special Purpose Recoverable Authorized Maintenance (SPRAM) account, with monitors, will be established and maintained as outlined in AFH 23-123, *Materiel Management Reference Information*.
- 3.2.2.2. Assign local serial numbers for all external fuel tanks.
- 3.2.2.3. Notify 52 CMS Fuel Systems Section when external tank local serial numbers have been changed.
- 3.2.2.4. Notify 52 CMS Fuel Systems Section of any external fuel tank discrepancies prior to tanks being downloaded. This will aid the 52 CMS Fuel Systems Section in troubleshooting the malfunction and ensure external tanks are not replaced due to aircraft malfunctions.
- 3.2.2.5. Perform F-16 370-gallon external fuel tank pylon firing pin protrusion checks on tanks installed on aircraft and update IMDS when completed.
- 3.2.2.6. Generate an off-equipment work order from IMDS screen 149 for each external fuel tank turned in for maintenance, inspection, etc. Ensure off equipment jobs are NOT work center events cut from aircraft jobs. Provide an IMDS snapshot to the 52 CMS Fuel Systems Section. Completely bottom drain and properly tag all external fuel tanks with appropriate discrepancy or condition prior to turn-in. An acceptance inspection will be accomplished with a Fuel Systems Section representative to ensure the external fuel tank is properly processed.
- 3.2.2.7. Tanks delivered with missing or incomplete hardware will have a completed Combat Air Force (CAF) Form 145, *Lost Tool/Object Report*, attached to the tanks prior to acceptance.
- 3.2.2.8. Any external fuel tank with a known discrepancy or inspection due will be delivered to the 52 CMS Fuel Systems Section within 1 duty day of discovery if discovered during normal duty hours.
- 3.2.2.9. All abnormal damage or suspected abuse will be identified and documented through Quality Assurance prior to 52 CMS Fuel Systems Section accepting tank.
- 3.2.2.10. Route external fuel tanks to the 52 EMS Aircraft Structural Maintenance Section for corrosion control when deemed necessary by the 52 AMXS Production Supervisor due to substandard appearance.
- 3.2.2.11. Maintain all applicable tank "Hang Kits" for each aircraft assigned.

3.2.2.12. Provide external tanks to 52 CMS one week prior to TDY/deployments to allow sufficient time to purge/prepare for shipment. When tanks are ready, AMUs will bring tank dollies and pick up tanks for processing. AMUs will be responsible for processing their tanks at the chalk processing time.

3.2.2.13. Will load external tanks on transport dollies and mark all weights and center of balance for TDY/deployment processing.

3.2.3. 52 MXG STAFF:

3.2.3.1. Plans and Scheduling will schedule all annual tank inspections as scheduled maintenance and will coordinate with 52 CMS Fuel Systems Repair section.

LARS R. HUBERT, Colonel, USAF
Commander

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

AFPD 21-1, *Air and Space Maintenance*, 25 February 2003

AFH 23-123, *Materiel Management Reference Information*, 8 August 2013

AFMAN 33-363, *Management of Records*, 1 March 2008, and USAFESUP, 25 November 2008 TO 1-1-3, *Inspection and Repair of Aircraft Integral Fuel Tanks, and Fuel Cells*, 15 November 2008

TO 1F-16C-2-49GS-00-1, *General System, Emergency Power System*, 15 June 2006 TO 1F-16CJ-2-10JG-00-1, *Aircraft Safety*, 15 December 2008

TO 1F-16CJ-2-49FI-00-1, *Fault Isolation, Emergency Power System*, 15 August 2008 TO 1F-16CJ-2-49GS-00-1, *General System, Emergency Power System*, 15 June 2006 TO 1F-16CJ-2-49JG-00-1, *Emergency Power System*, 15 October 2008

TO 1F-16CJ-2-49JG-00-2, *Emergency Power System*, 15 July 2008

TO 1F-16CJ-2-49JG-00-3, *Emergency Power System*, 15 November 2008

TO 6J14-4-11-2, *Maintenance Instructions, Fuel Storage Tank*, 25 October 2007 TO 16W6-29-2, *Fuel Tank Pylon Assembly*, 30 April 2007

TO 42B1-1-18, *Handling of H-70 (Hydrazine-Water Fuel)*, 15 June 2007 AFOSHSTD 48-8, *Controlling Exposures to Hazardous Materials*, Attachment 8. SABI 32-2001, *The Fire Protection Operations and Fire Prevention Program North America Emergency Response Guide (ERG)*

Adopted Forms

AFTO Form 781A, *Maintenance Discrepancy and Work Document*

AF Form 1492, *Warning Tags*

AFTO Form 244, *Industrial/Support Equipment Record*

AFTO Form 255, *Notice Certification Void When Seal is Broken*

AFTO Form 350, *Repairable Item Processing Tag*

CAF Form 145, *Lost Tool/Object Report*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AF—Air Force

AFMAN—Air Force Manual
AFPD - Air Force Policy Directive
AFSC - Air Force Specialty Code
AFTO - Air Force Technical Order

IAW—In Accordance With

MISCAP—Mission Capability NFTBU - Nestable Fuel Tank Build Up P&S - Plans and Scheduling

POI—Plan of Instruction

SPRAM—Special Purpose Recoverable Authorized Maintenance

TMDE—Test, Measurement, and Diagnostic Equipment

TO—Technical Order

UDM—Unit Deployment Manager USAFE - United States Forces in Europe UTC - Unit Type Code