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LUKE AIR FORCE BASE AIR FORCE

AIR FORCE INSTRUCTION 21-101

AIR EDUCATION AND TRAINING COMMAND
Supplement

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Supplement

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AIRCRAFT AND EQUIPMENT MAINTENANCE MANAGEMENT

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This instruction supplements Air Force Instruction (AFI) 21-101, *Aircraft and Equipment Maintenance Management*, and AFI 21-101_AETCSUP 1, *Aircraft and Equipment Maintenance Management*, and AFI 21-101_AETC Sup Addendum A, *Aircraft and Equipment Maintenance Management* (F-35). This supplement establishes policies and procedures for aircraft maintenance within the 56th Fighter Wing (FW). Procedures outlined in this supplement apply to all maintenance and operations personnel assigned to the 56 FW. This publication applies to Air Force Reserve Command (AFRC) Units, Air Force Reserve Technician (AFRT), 425 Aircraft Maintenance Unit (AMU), the 21 AMU contractor operations determined per Performance Work Statement requirements and Lockheed Martin Interim Contract Support maintenance operations per the current Contractor Statement of Work (CSOW). 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 847 from the field through the appropriate functional's chain of command. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with DAFI 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 authorities to waive wing/unit level

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SUMMARY OF CHANGES

This publication has been substantially revised and must be completely reviewed in its entirety. This supplement provides policy and additional guidance. The revisions include an extensive restructure and the total removal of 54th Fighter Group (54 FG) guidance. Updates attachment numbering and adds prescribed forms, Luke AFB Form 89, *56th Fighter Wing Lost Item Report and* Luke AFB Form 318, *Contract Monitoring and Surveillance Report.*

1.13.3. **(Added)** When wearing reflective belts it will only be worn around the waist of the outer most garments.

1.13.4. **(Added)** Hangar Door Operation. Only qualified personnel approved by the Squadron Maintenance Operations Officer/contractor equivalent or designated representative and signed off in Integrated Maintenance Data System (IMDS)/Contractor Training Database are authorized to operate the hangar doors.

1.13.5. **(Added)** 150 lb. Halon Fire Bottle Requirements. 56th Maintenance Group (56 MXG) is required to accomplish monthly inspections of all possessed 150lb Halon Fire Bottles, In Accordance With (IAW) Technical Order (TO) 13F4-4-121.

1.13.6. **(Added)** Low speed vehicles (LSVs) equipped with reflective tape on the front, rear, and sides may be parked in front of or behind aircraft during the hours of darkness without parking lights or flashers turned on.

1.13.7. **(Added)** Hazardous Noise Protection.

1.13.7.1. **(Added)** Supervisors will:

1.13.7.1.1. **(Added)** Ensure all forms of hearing protection and communication equipment, to include communication headsets, meet current Bio Environmental (BE) specifications. Contractors will abide by applicable governing contracts.

1.13.7.1.2. **(Added)** Ensure future purchases of all hearing protection and communication equipment, to include communication headsets have a minimum Noise Reduction Rating (NRR) IAW the applicable BE surveys. Contractors will abide by applicable governing contracts.

1.13.7.2. **(Added)** The following maintenance personnel hearing protection requirements are established:

1.13.7.2.1. **(Added)** Aircraft operations.

1.13.7.2.1.1. **(Added)** Hearing protection will be worn IAW the applicable BE survey. Contractors will abide by applicable governing contracts.

1.13.8. **(Added)** Chains or lanyards worn around the neck (metal, cloth, elastic, etc.), except for restricted area badge or a whistle for towing on lanyards with a breakaway device, will not be worn when performing hands-on-maintenance.

1.15.1.1. **(Added)** The following individuals have been identified as personnel authorized to use communication devices in the locations listed above in section 1 for Official Use Only: Commanders, Vice/Deputy Commanders Superintendents, OIC's, Production Supers, Flightline Expediters, FSE, AFETS, and LM Quality Assurance (QA)/Supervision.

1.20. **(Added) Incident Reporting Procedures.**

1.20.1. **(Added)** An incident is defined as aircraft/equipment damage or potential damage induced by maintenance. It also may be any personnel injury incurred during maintenance actions.

1.20.2. **(Added)** Units/Flight will report all incidents to QA and MOC immediately.

1.20.3. **(Added)** QA will:

1.20.3.1. **(Added)** Create an initial incident report, take pictures (when applicable) and assist in the incident investigation. The initial report will be sent out within 24 hours to the unit for investigation and documentation. A copy will be sent to 56 MXG/CC, MXG/CD and MXG/CEM.

1.20.3.2. **(Added)** Review all reports for trends and possible changes to technical data. A final report will be uploaded to the QA SharePoint site once QA receives the MXG crosstell from the unit.

1.20.4. **(Added)** The Unit/Flight having incident will:

1.20.4.1. **(Added)** Investigate the incident. The investigation will include a MXG crosstell, which will include the following: (root cause, hazard or deficiency, contributing factors, mishap cost, corrective actions implemented, recommendations or conclusions, and command actions).

1.20.4.2. **(Added)** Send completed report back to QA within five working days of notification.

2.2.6.1. **(Added)** Refer to LUKEAFBI 21-114, *Crash Damaged or Disabled Aircraft Recovery*.

2.4.44.1. **(Added)** Refer to the 56 MXG supplement to 00-20-1 for procedures.

2.4.59.1.1. **(Added)** Prior to the start of any tow job the tow team supervisor will ensure all conditions of Aircraft Maintenance Configuration Requirements (F-16 **Attachment 27** and F-35 **Attachment 28**) are met for aircraft destination. Tow team supervisor will also annotate completed items of the Aircraft Hangar (Pre & Post) Entry Checklist (most current QA approved copy located on the QA SharePoint) and secure it to the left forward portion of the fuselage prior to leaving the aircraft. The checklist will be placed inside the front cover of the 781 forms binder while at an engine operation facility (Hush House/Trim Pad) or may be placed inside the front cover of the 781 forms binder or in a water proof bag and secured to the aircraft while at the Wash Rack. The checklist will remain attached to the aircraft or in the 781 forms binder until the aircraft is removed from the hangar or facility, at which time the checklist will be disposed of.

2.4.59.1.2. **(Added)** All members of the towing operations (day and night) will have/utilize either a whistle or air horn to signal for an immediate stop to prevent aircraft/equipment damage or personnel injury.

2.5.1.15. **(Added)** The following paragraphs contain required attendees for the daily production meetings. If a designated attendee is unable to attend, they may identify an appropriate fill-in capable of addressing issues for their specific area of responsibility.

2.5.1.15.1. **(Added)** MXG/CD, MXG Superintendent, Maintenance Ops Officers/Squadron Superintendents, AMU OICs/Chiefs, Wing Weapons Manager, Wing Avionics Manager, Supply, Air Force Engineering and Technical Service (AFETS), Pratt & Whitney (PW), QA, Analysis, Maintenance Operations Center (MOC), and Maintenance Operations Flight (MOF).

2.5.1.15.1.1. **(Added)** Attendees for the 1600 Production Meeting include: MXG/CD, AMU/Equipment Maintenance Squadron (EMS)/Component Maintenance Squadron (CMS) Production Superintendent, MXO Supervision, AMXS Supervision, QA and MOC.

2.7.14.1. **(Added)** For requirements on removal/installation of munitions, suspension equipment and tanks, refer to **Attachment 27** or **28**. Munitions or impulse cartridges will not be uploaded or downloaded while aircraft is on jacks, in the hush house, or outside the munitions loading area.

2.7.14.2. **(Added-F-16 only)** Launch/Recovery of explosive loaded aircraft:

2.7.14.2.1. **(Added)** Personnel Limits: A minimum of two weapons personnel qualified on all munitions of the days flying SCL and EOR arm/de-arm procedures. One individual must possess a 5-skill level and be weapons checklist qualified.

2.7.14.2.2. **(Added)** Location of Operations: The following are designated arm/de-arm aircraft parking areas at Luke AFB as outlined in the Base Map Tab D-8 (Item 12A, North EOR-Item 12B, South EOR-Item 12C, Alternate North EOR pad west of runway 21R-Item 12D, Alternate South EOR pad east of runway 03L). In chock EOR procedures for depot, deployments, and TDY aircraft departures/returns can be authorized by AMU supervision.

2.7.14.3. **(Added-F-35 only)** Arming and de-arming of explosive loaded aircraft will be performed in the aircraft parking location for daily operations in accordance with F-35A Joint Technical Data (JTD).

2.7.14.3.1. **(Added-F-35 only)** F-35 AMUs will ensure that an aircraft walk- around check is accomplished, in lieu of an EOR inspection, subsequent to performing aircraft dispatch actions and prior to taxi. The walk-around check need only be accomplished once during the launch period. Specific items of inspection are outlined in local guidance. If ground comm is reconnected after the initial walk around inspection, another walk around shall be performed.

2.7.15.2. **(Added-F-16 only)** Hung inert/live bombs: EOR personnel will safe the aircraft IAW applicable technical data. If the aircraft cannot be safed, EOR personnel will declare a ground emergency, direct the aircraft to shut down and notify MOC. MOC will dispatch AMU recovery/weapons personnel to download bombs and safe the aircraft as required. If aircraft/bombs cannot be safed, recovery/weapons personnel will notify MOC to continue hung ordnance procedures as required.

2.7.15.2.1. **(Added-F-35 only)** Hung inert/live bombs: In the event an aircraft is returning from flight with hung live/inert ordnance qualified personnel will respond to the hung ordnance area, qualified personnel will safe the aircraft IAW F-35A JTD. If the aircraft cannot be safed with the MIP panel, or there is visible damage to the weapons bay doors, qualified personnel will declare a ground emergency, direct the aircraft to shut down and notify MOC. MOC will dispatch AMU recovery/weapons personnel to manually open the weapons bay doors to determine the status of the weapons and download bombs and safe the aircraft as required. If aircraft/bombs cannot be safed, recovery/weapons personnel will notify MOC to continue hung ordnance procedures as required.

2.7.15.3. **(Added)** Hung 2.75" rockets: For an unexpended rocket with aircrew attempt (misfire condition), EOR personnel will safe the aircraft IAW applicable technical data and visually check the rocket. If proper safing procedures cannot be accomplished declare a ground emergency, direct the aircraft to the alternate de-arm area and notify MOC. MOC will dispatch AMU recovery/weapons personnel to assess condition of rocket. If rocket is safe, recovery personnel will safe the aircraft IAW applicable technical data and direct the aircraft back to its spot. If rocket is unsafe, recovery/weapons personnel will notify MOC to continue hung ordnance procedures as required.

2.7.15.4. **(Added-F-16 only)** Aircraft Gun System Malfunction:

2.7.15.4.1. **(Added)** Prior to aircraft shutdown, weapons maintenance personnel will establish communications with the pilot and examine the rounds counter to determine whether gun rotation occurred. If the gun system did not rotate, perform normal EOR procedures and allow the aircraft to taxi back to the parking ramp. If the gun system rotated, the aircraft must be shut down in order to safely assess damage and determine if rounds are chambered. Personnel will not leave the aircraft unattended until the gun is safe.

2.7.15.4.2. **(Added)** When a hung or unsafe gun is discovered on the aircraft parking ramp, personnel will declare a ground emergency and notify MOC to begin Checklist #19 "Gun Problems" (Luke AFB).

2.7.15.4.3. **(Added)** In the event that there are damaged rounds with exposed powder, maintenance crews will saturate the exposed powder with Break-Free. Damaged rounds/powder will be placed in a plastic bag(s) and then into an ammo can clearly marked "Damaged Rounds, Lot #..., Quantity" then give to EOD personnel for disposal.

2.7.15.4.4. **(Added)** In the event EOD is not immediately available for removal of damaged rounds, place ammo can on weapons ready line for EOD to pick up the following morning. EOD need not be dispatched solely for pick-up of ammo can with damaged rounds/powder. Expediter will make note of quantity/lot number of damaged rounds turned into EOD on the AF IMT 2434, *Munitions Configuration and Expenditure Document* for reconcile purposes.

2.12.9.1. **(Added)** Maintenance supervisors will accomplish a review of applicable aircraft forms, equipment forms, and/or MIS after each shift to ensure accomplished work is complete and accurate and ensure aircraft, aircraft system, and/or equipment status is correctly reflected in maintenance forms and the MIS IAW 00-20-1.

3.4.3.1. **(Added)** Ensure one DCC/ADCC per shift (days/swings) will accompany the aircraft during the phase inspection. If the AMU manning cannot support this it must be discussed at the pre-dock and a plan worked out between the AMU and Maintenance Flight Supervision.

3.5.10.2. **(Added)** Update the MOC, IA and EM with damage details upon completion of borescope FOD inspections

3.5.12.1. **(Added)** Notify QA Weight and Balance office 48 hours prior to any Luke AFB aircraft departing home station for cross country or TDY purposes. This is to ensure form "F" generation is complete for the applicable aircraft.

3.5.14. **(Added-F-16 USAF Aircraft Only)** Production Superintendents will ensure the F100-PW-200/220E engine oil servicing task is accomplished IAW 1F-16C/CG-12JG-00-1 before flight on aircraft that exceed 10 calendar days since last sortie or engine run. Additionally, the engine oil servicing task will be accomplished if there is evidence of significant oil loss from the engine breather assembly located underneath panel 4301, regardless of how many days the engine has not been operated. This guidance does not replace engine oil breather serviceability limits found in 1F-16C/CG-70FI-00-21 (71-00-00, fault tree YD).

3.5.15. Unit Production and/or Supervision will appoint an aircraft manager to aid in recovery from extensive maintenance events and down time (CANN, local depot maintenance) and include independent screening and validation that all maintenance actions (In-Process Inspections **(**IPI), operational checks, configuration management, Weight and Balance (W&B), serial number (S/N) tracking (Computer Security (COMSEC)/ Controlled Cryptographic Item (CCI) and other significant items as designated by an asterisk in the applicable Work Unit Code (WUC) / Local Control Number **(**LCN) Manual), AFTO Form 95, *Significant Historical Data* have been accurately documented in the forms, MIS, or both before being scheduled for a sortie or mission.

3.5.16. Unit Production and/or Supervision will determine if an Operational Check Flight (OCF) or Functional Check Flight (FCF) is required for any aircraft which extensive maintenance was performed.

3.6.9.1. **(Added)** Flightline expediter will maintain parking areas positioned along the barriers on the flightline. They will police the area and notify their AGE driver when equipment requires pickup or attention. The only ready lines are at the AGE flight, and those designated for bomb lifts, all other areas are sub pools.

3.7.1.1.1. **(Added-F-16 only)** Reconcile flight times with IMDS and Graduate Training Integration Management System (GTIMS) at the end of each flying day.

3.7.1.1.2. **(Added)** Ensure all off-station fuels purchases are documented on AF IMT 664 and reported to the wing refuel document control officer (WRDCO) at least weekly or at termination of TDY. This includes air refueling and fuels purchases made by Luke aircraft in transient status (IAW DoDM 4140.25-M, Vol. II).

3.7.6.2.1. **(Added)** Refer to 56 MXG supplement to 00-20-1 for procedures.

Table 3.4. (Added) Additional Deviation Cause Codes.

XDM	DEFER MULTIPLE SHOP
XFC	FUNCTIONAL CHECK FLIGHT
XIF	INFLIGHT EMERGENCY
XOC	OPERATIONAL CHECK FLIGHT

XTD	UNIT IS TDY
XUT	Utilization rate (UTE) CANX NON-CHARGEABLE

3.8.1.4. **(Added-F-35 only)** BOS bottles will be a minimum of 250 liters before each flight for all F-35 aircraft scheduled to fly. If BOS bottle is below 250 liters, BOS bottle will be serviced IAW current JTD Module: Backup Oxygen Supply (BOS) – Replenishing.

3.8.3. **(Added)** 56 MXG/CC has opted to establish a Dedicated Crew Chief (DCC) program IAW the guidance provided in AFI 21-101 and this supplement. AMXS/CC will be responsible for the implementation/maintenance of the DCC program.

3.8.3.1. **(Added)** Aircraft Maintenance Units will:

3.8.3.1.1. **(Added)** Ensure applicable IMDS screen is used to assign DCC and assistant dedicated crew chiefs (ADCC) to F-16 aircraft. Ensure DCC and ADCC for F-35 aircraft are designated in writing.

3.8.3.1.2. **(Added)** Ensure personnel have a minimum rank of Staff Sergeant (SSgt), unless waivered per **paragraph 3.8.3.2.1**, and complete the DCC course for their respective aircraft. **Note:** Individuals who have completed a DCC course at a previous base of assignment will be exempt from attending course 039035 as long as training can be verified.

3.8.3.1.3. **(Added)** Ensure appropriate representation at Maintenance Training Flight's annual Curriculum Advisory Committee (CAC) meeting to validate DCC course material. CAC representative will possess a 7-skill level or higher.

3.8.3.1.4. **(Added)** Validate advanced crew chief training via annual course review hosted by 372d Training Squadron, Detachment 12 (56 FW). (Detachment 12 will develop and maintain course syllabi, tests, and conduct the course as required for Luke AFB.)

3.8.3.1.5. **(Added)** Powered AGE will never be connected to a vehicle and an aircraft simultaneously.

3.8.3.2. **(Added)** DCC Waivers:

3.8.3.2.1. **(Added)** Waivers will only be granted to Senior Airmen based on performance, experience, and potential by the Sq/CC.

3.9.4.3.1. **(Added-F-16 only)** Document borescope inspections on MXG form, 56 MXG 003 flightline borescope sheet. This form will be completed on all borescope inspections, with damage noted. A completed form will be forwarded to EM for automated history update in CEMS and storage in engine records prior to next flight. Forward forms to EM via a readable fax, scanned copy or hand delivered will be sufficient. The document can be found on 56 MXG/MXQ SharePoint under engines.

3.9.4.7. **(Added-F-16 only)** Ensure coordination with EM regarding all engine, module, and component removals, installations, and cannibalizations scheduled or unscheduled. Only EM personnel are authorized to clear engine related IMDS suspense's.

3.9.4.8. **(Added)** In the case of a part/serial number disagreement, provide a picture of the data plate if no documentation for item is available to EM prior to flight.

3.9.4.9. **(Added)** Engine time change: All engine components and modules authorized an overfly will be annotated in the engine AFTO Form 781K on a red dash. The following information will be entered when the item is approved for the overfly period: "Noun, part number, serial number authorized overfly in accordance with the appropriate TO number or MAJCOM or Engineer message, and maximum overfly limit /cycles of life left on item.

3.9.4.10. **(Added-F-16 only)** Appointed TDY engine monitor will:

3.9.4.10.1. **(Added-F-16 only)** Report to EM for training and briefing NLT 2 days prior to TDY.

3.9.4.10.2. **(Added-F-16 only)** Coordinate with EM on engine shipment to and from the TDY location for documentation and shipping responsibilities

3.9.4.11. **(Added)** AMU will coordinate through Vehicle Control Officer (VCO) or group level VCO to request flatbed air ride trailer from Vehicle Operations Control Center (VOCC).

3.9.4.12. **(Added-F-16 only)** TDY AMU OIC/Production Superintendent will ensure TDY maintenance personnel collect and transmit data as follows:

3.9.4.12.1. **(Added-F-16 only)** Engine downloads.

3.9.4.12.2. **(Added-F-16 only)** Data will be transmitted to home station daily at the end of duty day by downloading the ced2cems.dat file from the CETS unit and sending via email to **56MOS.MXOOE@us.af.mil**. Personnel will ensure verification of download from EM and receive fault data if applicable.

3.9.4.12.3. **(Added)** Component or module replacement and engine change data can be transferred via e-mail or FAX.

3.10.1.31. **(Added)** Responsible for storage, transportation, handling, accountability, and control of impulse cartridges:

3.10.1.31.1. **(Added)** The weapons section chief will ensure equipment requirements for cart lockers are met: grounded metal locker that provides adequate security and protection from the elements. Locker will have a suitable ground slap bar/grounding point to allow dissipation of static electricity prior to handling impulse cartridges. Suitable metal containers with provisions to prevent explosive item-to-item contact will be used for transporting impulse cartridges to and from the job site.

3.10.1.31.2. **(Added)** Impulse cartridge storage lockers will be maintained IAW AFMAN 32-1065, *Grounding & Electrical Systems*, Table 1, items 12 a and b. Civil Engineer Squadron is required to complete a 5-year visual and resistance check of the facility ground IAW AFMAN 32-1065, Table 1, item 4a. Ensure that all inspections are documented and kept with the storage locker.

3.10.1.31.3. **(Added)** Each AMU storage facility is designated by the AF Form 2047, *Explosive Facility License*. The responsible weapons section chief or designee will coordinate storage locker movement with the wing weapons safety office and notify the fire department whenever the explosive storage locker is relocated.

3.10.1.31.4. **(Added)** Sequence of operations for storage and transportation of impulse cartridges:

3.10.1.31.4.1. **(Added)** Limit access to the cartridge locker by providing support section a memorandum listing individuals authorized to sign in/out cartridge locker keys.

3.10.1.31.4.2. **(Added)** Weapons personnel with authorized access to the locker will perform a complete inventory and sign the cartridge control log at the beginning and end of each shift.

3.10.1.31.4.3. **(Added)** Ensure load crews accurately inventory and keep positive control of explosive assets assigned to them at all times. To ensure accurate quantity and type of impulse cartridges utilized in bomb racks, ejector racks, and fuel pylons, the person responsible for impulse cartridge installation and the individual in charge of the explosive operation will confirm/concur the correct quantity and type of impulse cartridges were installed.

3.10.1.31.4.4. **(Added)** General Safety Precautions: The explosive limits and personnel limits are reflected on the applicable AF Form 2047 at each location. Personnel limits apply only to the personnel engaged directly with the cart locker. It is not intended to limit the number of personnel working in or around the area during impulse cartridge storage.

3.10.1.31.4.5. **(Added)** Safety Precautions: Serviceable impulse cartridges will be kept physically separated from unserviceable cartridges during storage and transportation. Ensure two fire extinguishers (2A:10BC) are readily available during all operations.

3.10.1.31.4.6. **(Added)** Prior to handling any impulse cartridges, and at frequent intervals during handling, each person will touch a grounding device to discharge any static electricity potential.

3.10.1.31.4.7. **(Added)** Personnel will practice good housekeeping and keep non-combustibles items not related to inventory equipment out of the storage locker (exception: inventory log). Impulse cartridges kept in their original packaging box may be stored there.

3.10.1.31.4.8. **(Added)** Live impulse carts will be transported in a red metal can labeled “LIVE IMPULSE CARTS”. A suitable can is equivalent to any red ammunition can with wood or foam separators.

3.10.1.31.4.9. **(Added)** Annotate removed/added impulse carts to cartridge control log. Remove any trash/combustibles from locker and secure locker.

3.10.1.31.4.10. **(Added)** Transportation is limited to/from flightline, aircraft generation area, emergency aircraft parking areas, transient aircraft ramp, or munitions storage area. Only transport the amount required for daily mission support on the flightline. Limit personnel to the number of seats available in vehicle.

3.10.1.31.4.11. **(Added)** Cartridges and containers will be safely secured during transportation. Containers with impulse cartridges left unattended on the flightline will be secured to prevent unauthorized access or removal.

3.10.1.31.4.12. **(Added)** Vehicles containing impulse cartridges will not be left unattended unless parked in a properly designated area (i.e., flightline, weapons storage area, holding yard, or ready munitions area). Vehicles will not be utilized to store impulse cartridges.

3.10.1.31.4.13. **(Added)** Impulse cartridges (and other explosives) will not be transported in pickup trucks that have plastic bed liners installed unless the cartridges are in their original sealed container. **Note**: This does not apply to spray-in bed liners.

3.10.1.31.4.14. **(Added)** AMUs assigned transient alert duty will ensure impulse cartridges removed from transient aircraft are clearly segregated from home station impulse cartridges.

3.10.1.31.4.15. **(Added)** Expended cartridges will be temporarily transported/stored in a closed metal ammunition can labeled, "EXPENDED IMPULSE CARTS", until turned in to EMS Munitions Flight personnel at the end of the flying day. Any color 20MM ammunition can, other than red (or equivalent) is suitable. When used to transport expended cartridges, the ammunition can will be secured in the cargo compartment during transport and the cargo compartment will be free of readily combustible materials.

3.10.1.31.4.16. **(Added)** Live or expended impulse carts will not be stored inside an office (non- industrial) environment under any circumstances.

3.10.1.31.4.17. **(Added)** Suspect impulse cartridge(s) involved in hung munitions incidents will be tagged with aircraft tail number, type suspension equipment and serial number, position of station involved, and cartridge lot number. Call EMS Munitions Control Element for immediate pick-up of suspect impulse cartridges. If suspect impulse cartridge(s) are being held pending other bad actor troubleshooting or cannot be immediately transported to the munitions storage area, keep physically segregated in the cartridge cabinet/locker pending troubleshooting completion. Suspect cartridges will not be reused for troubleshooting purposes.

3.10.1.32. **(Added)** Suspect/misfire/damaged/over-G Rocket/CAP-9/Acceleration Monitoring Assemblies (AMA) procedures:

3.10.1.32.1. **(Added)** All suspect misfire rockets will be downloaded from aircraft by weapons load crew personnel. The load crew will place a black X, launcher number, and aircraft tail number on the side of the rocket motor with permanent ink. If possible, attempted to load rocket onto different aircraft/launcher for a second attempt before turning into Line Delivery.

3.10.1.32.2. **(Added)** Impulse cartridge storage lockers will be maintained IAW AFI 32-1065 and 56 FW Weapons Safety guidance.

3.10.1.32.2.1. **(Added)** If a rocket is returned to service and fails to fire on the second attempt, the load crew will mark with a second black X and tag suspect rockets with an AFTO Form 350, Repairable Item Processing Tag. The tag will contain the following information: The tag will indicate the discrepancy and will contain the following information: Rank/Name, launcher number, aircraft tail number, and date flown. Warning: Under no conditions will a rocket marked with two black Xs be loaded and attempted to fire a third time.

3.10.2.7.1. **(Added)** AMU Weapons Expediters will notify munitions control of all installed CATM-120s on confirmed Over-G aircraft. Document Over-G condition on a 350 tag and remove installed munitions for pick-up and delivery to PGM for inspection and tracking.

3.11.3.2. **(Added)** Ensure Dash-21 equipment control and accountability.

3.11.3.2.1. **(Added)** Aircraft ladders will have a properly filled out AFTO Form 244 and be placed on the ladder.

3.11.3.2.2. **(Added)** Aircraft ladder inspection intervals will be every 180 days and documented on AFTO Form 244 section III.

3.11.3.2.3. **(Added)** Each External Fuel Tank (EFT) hardware kit will have an identification number assigned IAW AFI 21-101, paragraph 8.6.1.2.1.4. The only items inside the kit that must be marked or etched are 3 each external tank pins.

3.11.3.2.4. **(Added-F-16 only).** Dash-21 equipment assigned to an aircraft will be identified by the tail number (Example: A9056 FOR A89-2056). The gun hold back tool will be etched with the serial number of the gun unit. The gun electrical safety pin will be marked to the assigned aircraft. The chaff/flare safety pins will be assigned to the owning unit. All other Alternate Mission Equipment (AME) pins do not require markings. All F-16 streamers attached to landing gear, emergency power unit, external fuel tanks, chaff and flare, gun, MAU-12, and tail hook pins will have a minimum length of 8 inches and a maximum length of 12 inches IAW 00GV-00-1. No double etchings allowed for -21 or AME.3.11.3.2.5.

3.11.3.2.5. **(Added)** Each EFT hardware set and Dash-21 equipment set will be assigned to an aircraft and will inspected semi-annually

3.11.3.2.6. **(Added)** Spare operational sets of Dash-21 equipment, such as temporary duty (TDY) sets, will be assigned an identification number. Spare operational sets will be inspected semi- annually by the Dash-21 Program Manager. Operating stock needed for Dash-21 equipment may be maintained.

3.11.3.2.7. **(Added-F-35 only)** JSF program-owned and unit owned Dash-21 equipment (Red Gear) will be marked and tracked via the WWID aircraft tail number (Example: A5069 for aircraft 13-5069). **Note:** F-35A streamers may be shorter or longer only when received from manufacturer and will be maintained as such. Added streamers to unit owned Dash-21 will be required to be minimum of 8 inches. No double etchings allowed for -21 or AME.

4.4.3.1.3.1. **(Added)** AMU plans and scheduling in coordination with AMU Production will:

4.4.3.1.3.1.1. **(Added)** Schedule seat/canopy 36-month inspections concurrent with the time change item, if due within the 9-month period. **Note:** 425th AMU will use the RSAF 5 percent rule to manage the replacement of TCI.

4.4.3.1.3.1.2. **(Added)** Coordinate tentative schedule with Egress Section 3 months in advance.

4.4.3.1.3.2. **(Added)** Only Egress personnel, Low Observable personnel or an instructor pilot will determine canopy transparency discrepancies and serviceability. AMU will notify the Egress Section when transparencies are placed on order when determined unserviceable.

4.4.3.1.4.2. **(Added)** All off equipment canopy maintenance and inspections will be performed in the egress maintenance section or hangar 995.

4.4.3.1.4.3. **(Added)** All aircraft seats and canopies will be removed and installed inside a maintenance hangar if hangar space is available. F-16 seats and canopies and F-35 canopies will be removed and installed outside a maintenance hangar only as a last resort and must be approved by Group/CC, Group/CD, or Group/CCC. F-35 seats may be removed and installed outside a maintenance hangar with CMS/MXM approval. **Note:** LM maintained aircraft do not require approval from CMS/MXM for seat removal outside of a maintenance hangar.

4.4.3.1.4.4. **(Added)** Hangars 408, 431, 498, 840, 913, 914, 984, and 995 are equipped with overhead hoists and are authorized for egress seat and canopy removal and installation.

4.4.3.1.4.4.1. **(Added)** Egress section will install cockpit cover on aircraft upon removal of canopy. Units will ensure cockpits stay covered while canopies are removed.

4.4.3.1.4.4.2. **(Added)** Egress will be allowed to use the F-35 canopy rotating stand to tow a canopy at a rate of no faster than 5 MPH.

4.4.3.1.4.4.3. **(Added)** Physical separation of occupants and explosives is not required for metro- type vehicles.

4.4.4.1.6. **(Added)** EPU Monopropellant Tester Management:

4.4.4.1.6.1. **(Added)** Individuals who use the tester must place a red X in the AFTO Form 244, Industrial/Support Equipment Record, and annotate date and aircraft tail number the tester was last used on.

4.4.4.1.6.2. **(Added)** The AMU will turn the EPU tester into fuels support section after each use for contamination check. If contamination is discovered, tester must be purged by the Aircraft Fuels System Specialist. The Fuels Specialist will document a 350 Tag confirming that the tester has been checked and/or purged, and no contamination is present.

4.4.4.1.7. **(Added)** Refer to the local MEP for approved tasks, limitations and locations for maintenance.

4.4.4.1.7.1. **(Added)** Open tank fuel system maintenance is authorized: install/removing Plexiglass observation panels, dry motoring operational/leak checks, and torqueing associated lines. Must be accomplished by 2A6X4 fuel system technicians.

4.5.1.1.1. **(Added)** When ground servicing equipment is utilized to perform aircraft servicing (i.e., engine oil, hydraulics, LOX, GOX, and fuel), the AF Form 3136, Oil/Hydraulic Cart Servicing Log; AFTO Form 134, Aviators Breathing Oxygen Servicing Trailer Log as applicable, will be documented. When the equipment servicing log becomes full, leave it in the forms storage pouch, obtain a blank form, complete the heading, and begin using the new form.

4.5.1.2.1. **(Added)** AGE will not be backed with a vehicle unless a spotter is present. AGE requiring repositioning within 25 feet of an aircraft will be pushed manually.

4.51.2.2. **(Added)** Vehicles will never be operated and AGE will not be towed within 10 feet of any portion of an aircraft, into hangars, or under aircraft sunshades when aircraft are present. Exceptions: Tow vehicles for the purpose of towing, emergency vehicles, equipment engaged in emergency or recovery operations and weapons loading equipment (jammers) performing weapons functions on that aircraft.

4.6.1.4.1. **(Added)** Armament Flights will:

4.6.1.4.1.1. **(Added)** Account for all AME, attaching hardware, and associated safety gear. 21 and 425 AMUs will account for their own attaching hardware and safety gear. F-35 AMU Weapons Sections will account for all AME and weapons-related equipment and hardware, though Armament Flight may be responsible for storing some quantities of equipment.

4.6.1.4.1.2. Added) Sign in/out all equipment from storage facility or maintenance facility (as required) using AME sign in/out log. All attaching hardware and safety gear will be inventoried and accounted for during AME sign in/out.

4.6.1.4.2. **(Added)** AMU Weapons Expediters will:

4.6.1.4.2.1. **(Added)** Ensure Underwing Adapters (UWA) and Centerline Pylons (CLP) turned into Armament Flight have the attaching hardware stored in a screw bag affixed to the outside of the equipment. Wing Weapons Pylons (WWP) will be turned in with the attaching hardware stored in the pouch behind the pylon access panel.

4.6.1.4.2.2. **(Added)** Triple Ejector Racks (TER) will be turned into Armament Flight with serially mated cables and pin bags attached. TERs with cables on order will have a document number and a maintenance snapshot inquiry (IMDS screen #122) printout attached to the AFTO Form 350 verifying status before the equipment is turned in to Armament Flight. TERs will be turned into Armament Flight configured for heavy munitions. (i.e., BDU-33 saddles and yokes removed).

4.6.1.4.2.3. **(Added)** Ensure equipment is turned in to Armament Flight for scheduled maintenance no later than close of business on the last duty day of the week prior to the scheduled inspection as referenced on the scheduled maintenance page of the signed weekly operations and maintenance plan unless otherwise coordinated between the Armament Flight Maintenance NCOIC and AMU Weapons Section.

4.6.1.4.2.4. **(Added)** Deliver all in-flight malfunction AME directly to the Armament Flight after aircraft landing/malfunction discovery and initial troubleshooting. An AFTO Form 350 and an IMDS screen #122 printout will be attached. **Note:** Do not perform End of Firing Day (EOF) inspections on AME prior to bring it to Armament. Equipment should be checked by Armament in as close to original condition as possible. If AME is found faulty, Armament will repair and complete EOF after troubleshooting is completed and place it back in storage. If AME discrepancy cannot be found, AMU Weapons Section will pick up the piece of AME, perform EOF, and install it at the next available opportunity. (If AME no longer needed by AMU, Weapons Section will perform EOF and leave/return to storage.)

4.6.1.4.2.5. **(Added)** Forward a letter (electronic or paper) to the Armament Flight Maintenance NCOIC identifying TDY/deployed equipment by type, quantity, and serial number. Notify Armament Flight when all TDY/deployed assets have returned, except assets not owned by the US Air Force.

4.6.1.4.2.6. **(Added)** Notify Armament Flight Maintenance NCOIC when aircraft transfer out with AME installed.

4.6.1.4.2.7. **(Added)** Weapons Expeditor will coordinate with AMU Weapons Maintenance NCOIC and (as needed) Armament Flight Maintenance NCOIC to ensure completion of on-equipment inspections (i.e. LAU-129 90 day and MAU-12 180 day inspections) on uninstalled equipment. However, to the extent possible and feasible, Armament Flight will complete and update in use inspections when the equipment is in for scheduled maintenance that is the responsibility of the flight. For all inspections resulting from an in-flight malfunction, ensure malfunction log is updated and an IMDS screen 122 and AFTO Form 350 tag accompany AME to Armament Flight. Malfunction log is located on applicable base SharePoints. In the event that SharePoint is down, a completed inflight worksheet will be used. Develop local reference sheet or checklist for the receiving or issuing of equipment. This should cover items to look for (i.e., bushings, attach bolts, etc.) and particular areas to look for damage and cleanliness.

4.6.2.1.1. **(Added)** Advise AMU Weapons Sections of changes to weekly/monthly maintenance schedule.

4.8.4.1.2. **(Added)** Responsible AMU will ensure oil servicing carts are sampled every 7 days.

4.8.1.3. **(Added)** JOAP Lab personnel will update oil change times as they occur using Integrated Maintenance Data System (IMDS).

4.8.4.1.4. **(Added)** JOAP personnel will track and report DD2026 errors to MOC. Errors not corrected prior to the next flying day will appear on the weekly error listing.

4.9.5.12.3. **(Added)** Control impulse cartridges removed from transient aircraft IAW **Chapter 3** this instruction.

4.9.5.12.4. **(Added)** Procedures and requirements for de-arming, arming, and storage of explosives loaded on transiting aircraft are as follows:

4.9.5.12.4.1. **(Added)** Contracted Transient Alert (TA) personnel, will notify MOC of aircraft type, location, tail number, explosives type, and quantity on the aircraft to be loaded or downloaded.

4.9.5.12.4.2. **(Added)** MOC will then notify an F-16 AMU (for F-16 aircraft only) to de-arm, arm, and store the explosive impulse carts (if applicable). 56 MXG Weapons Standardization (WS) will be called for non F-l 6 aircraft or munitions items the AMU is not qualified on. Impulse cartridges will be controlled IAW **Chapter 4** of this instruction.

4.9.5.12.4.3. **(Added)** If additional storage is required for munitions or impulse cartridges, the supporting agency (WS or AMU) will contact 56 EMS Munitions Control Section for assistance.

5.2.5.1.11.5. **(Added)** Additions, deletions, or changes to IMDS work center codes must be coordinated through maintenance group manning (56 MXG/MXOP) and/or maintenance data systems analysis (56 MXG/MXOA).

5.2.5.3.4.7.1.1. **(Added)** Use manual job control number (JCN) (Attachment 29) only when IMDS is down. Transient Alert may use manual EIDs for all transient aircraft.

5.2.5.3.4.7.1.1.1. **(Added)** During periods of IMDS downtime manual job control numbers (JCN) in (**Attachment 29**) will be used. Transient Alert may use EIDs for all transient aircraft.

5.2.5.3.4.7.1.2. **(Added)** Unit schedulers will assign manual EIDs for assigned equipment, time change items, Time Compliance Technical Orders (TCTO), One-Time Inspections (OTI), and special inspections on assigned aircraft.

5.2.5.3.7. **(Added)** Debrief will assign manual EIDs for any jobs called in during aircrew preflight.

5.2.5.3.7.1. **(Added)** Upon notification of extended downtime (24 hours) or computer failure, cease all computer processing. Database Management (DBM) will coordinate with the Subsystem Managers, tenant unit DBM, and Oklahoma City Defense Enterprise Computing Center (DECC).

5.2.5.3.7.2. **(Added)** All IMDS users must:

5.2.5.3.7.2.1. **(Added)** Annotate their most current IMDS products until all updates are processed and a new product can be furnished by DBM section.

5.2.5.3.7.2.2. **(Added)** Determine what minimum background products are needed to accomplish their mission and the frequency of processing.

5.2.5.3.7.3. **(Added)** The DBM section will:

5.2.5.3.7.3.1. **(Added)** Advise the 56 OG/MXG commanders and their respective staffs on system status.

5.2.5.3.7.3.2. **(Added)** Coordinate all IMDS related processing with Oklahoma City DECC and other IMDS users on priority and frequency of processing.

5.2.5.3.7.3.3. **(Added)** Utilize the following data input priority list whenever IMDS is down for an extended period of time: Debriefing, MOC, PS&D, Engine Tracking, and then all others.

6.2.20.1. **(Added)** AMU's will notify QA/Wing Corrosion Manager when aircraft return to home station after off station full paints are accomplished.6.3.4.2. (Added) Maintain a master copy and perform 50 percent review annually of all local forms, lists, preprints, and ALIS work order templates allowing 100 percent review every 2 years.

6.3.4.2. **(Added)** The 21 and 425 AMU's are authorized to use manual preprinted AFTO Forms 781A, and will maintain no more than a 3-month supply of preprinted forms. To effectively control the use of preprinted manual AFTO Forms 781A, all authorized units will download preprints via the Local Area Network on an "as needed" basis.

6.3.4.3. **(Added)** Units within the MXG will submit additions or deletions to local forms, lists, preprints, profile-type job flow packages, and ALIS work order templates through their section chiefs and supervision to be reviewed for accuracy, intent, and necessity. After review, coordinate with MXG QA for final approval (21 AMU local forms, lists, preprints, and profile-type job flow packages will be coordinated through 21 AMU QA). For profile type job flow packages, submission will be as stated, with additional coordination through unit Plans and Scheduling (P&S) to perform the requested actions in IMDS. After actions are completed in IMDS, P&S will notify MXG QA (21 AMU Contracting Officer Representative (COR) as applicable) of completion. Lockheed Martin local forms and lists will be coordinated through LM/QA.

6.3.4.4. **(Added)** QA will assign individual control numbers to each approved form. Ensure the current date and QA stamp (ink or approved digital) is in place.

6.3.4.5. **(Added)** Under unique circumstances or extensive repair conditions, additional inspection requirements may be needed to ascertain adequacy of repair and quality of depot/contractor activities. If these conditions arise, the QA section will develop and publish additional acceptance/transfer inspection activities/criteria on a case by case basis.

6.4.10.1. **(Added)** The master forms binders for USAF F-16 AMUs are maintained at the QA office. F-16 AMU master forms will mirror QA's master forms. 21 and 425 AMU's are maintained at the QA office. They may have additional forms as long as the aircraft forms are standardized within the AMU.

6.7.2.2.2.1. QA inspectors will validate inspections of aircraft forms, equipment forms, and/or MIS reviews via Maintenance Standardization and Evaluation Program (MSEP) and Routine Inspection List (RIL) requirement. See **Para 2.12.9.1**, **3.5.15**, and **3.5.16**

6.9.5.5. **(Added)** The maintenance group commander will establish local guidance for 107 and AR requests.

6.9.6. **(Added)** Refer to LUKEAFBI 21-117, *Product Improvement Program*.

6.12.1.1.1. **(Added)** All FCF/OCF missions must have prior approval by the 56 OG/CC or CD and 56 MXG/CC or CD or 21 FS Project Manager.

6.12.2.1.2. **(Added)** QA FCF program manager will maintain a copy of the FCF certification letter signed by the 56 OG/CC. FCF manager will coordinate minimal number of FCF pilots with OG/OGV.

6.12.2.1.3. **(Added)** All FCFs must be flown by a current and qualified FCF pilot. During F-16 D model FCF missions, the rear cockpit can only be occupied by a FCF qualified pilot or an upgrading FCF pilot. OCFs will only be flown by a fully qualified instructor pilot (IP).

6.12.3.1.1. **(Added)** Brief pilot and Top-3 on reason and corrective action for FCF. Accompany the FCF pilot on the -1 preflight inspection of the aircraft.

6.12.3.6. **(Added)** Conduct preflight maintenance evaluations on FCF aircraft per the Maintenance Standardization and Evaluation Program (MSEP).

6.12.3.7. **(Added)** Conduct a full review of CMMS (F-35) work order history (as applicable), or the active aircraft forms, inactive aircraft forms, IMDS, and associated aircraft history (applicable to FCF and OCF aircraft).

6.12.3.8. **(Added)** E-mail the reason and corrective actions regarding the FCF/OCF/high speed taxi (HST) to the OG/CC and MXG/CC (or designated representatives) or 21 FS Project Manager for approval. Approval e-mails will be printed out and attached to the QA FCF/OCF/HST checklist.

6.12.4.4. **(Added)** F-16 FCF configuration will be clean with no external pylons (exception: a pylon may remain installed on station five). A centerline tank, an acceleration monitoring device pod, and a captive AIM-9 missile are allowed on stations 1 and 9 during FCF training missions. Configurations other than the above require OG/CC approval. F-35 FCF configuration will be clean, with modifications subject to OG/CC approval.

6.12.4.5. **(Added)** The AMXS will notify/coordinate all FCF/OCF with QA FCF Manager in a timely manner to allow sufficient time to accomplish FCF/OCF requirements and to preclude any last minute delays. All maintenance actions and documentation will be completed before the QA FCF Manager requests authorization. This will consist of the following actions, as applicable to the MDS:

6.12.4.6. **(Added)** Units with IMDS will ensure an FCF/OCF job flow package is inserted in the new aircraft forms. F-35 AMUs will ensure the appropriate FCF work order template is loaded into CMMS (F-35).

6.12.4.7. **(Added)** Ensure the active and pulled AFTO Form 781-series forms, copy of current IMDS 380 screen, and maintenance history report for the aircraft and engine are reviewed by QA FCF Manager.

6.12.4.8. **(Added)** Notify MOC of anticipated FCF/OCF mission.

6.12.6.1. **(Added)** Aircraft located off station requiring FCF/OCF will follow home station procedures in coordination with home station OG/CC and MXG/CC, or 21 FS Project Manager (as applicable).

6.12.7. **(Added)** FCF OIC. The 56 OG/OGV is the OPR for 56 FW FCF pilot training and management. The FCF OIC is the 56 OG/OGV designated chief FCF pilot.

6.12.7.1. **(Added)** The FCF OIC will train all FCF pilots and provide the QA FCF program manager a copy of pilot FCF certification letters signed by the 56 OG/CC.

6.12.7.1.1. **(Added)** The OIC will work directly with the OG/CC to ensure the 56 FW has at least three current and qualified FCF pilots per every MDS where FCF pilots are required. The 21st and 425th will each maintain at least one FCF pilot and no more than three FCF pilots at the discretion of the respective FS/CC. If OGV manning does not allow for three FCF pilots from OGV, the FCF OIC will coordinate with FS/CC and OG/CC for approval, to identify highly qualified Instructor Pilots (IP) as FCF pilots.

6.12.7.2. **(Added)** FCF pilots will receive FCF academics from the FCF OIC annually.

6.12.7.3. **(Added)** FCF currencies will be accomplished IAW MDS V1 requirements and will be tracked using the ARMS database.

6.12.7.4. **(Added)** Training requirements for FCF Pilot are IAW MDS Vol 1. 56 FW FCF pilots must complete the following training:

6.12.7.4.1. **(Added)** Receive a comprehensive briefing from the FCF OIC on local procedures and requirements.

6.12.7.4.2. **(Added)** Review all applicable publications, regulations, and respective supplements including AFPAM 11-205, *Aircrew Quick Reference to Aircraft Cockpit and Formation Flight Signals;* AFMAN 11-202V3, *Flight Operations;* AFMAN 11-218: *Aircraft Operation and Movement on the Ground*; DAFMAN 11-401, *Aviation Management*; AFMAN 13-201: *Air Space Management;* AFI 21-101, *Aircraft Equipment Maintenance Management;* LUKEAFBI 13- 204, *Airfield Operations and Base Flying Procedures*, 56 FW IFG, TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and Procedures*; TO 1-1-300: *Maintenance Operational Checks and Check Flights*; LCL 56 MXQ-2, *High Speed Taxi Checklist*, and MDS specific FCF T.O.s, manuals, and checklists.

6.12.7.4.3. **(Added)** Accomplish an open book examination based with a minimum passing score of 85% corrected to 100%.

6.12.7.4.4. **(Added)** Complete the local FCF profile in a simulator with a current and qualified FCF pilot.

6.12.7.4.5. **(Added)** F-16 pilots will see a full FCF profile in flight from the rear cockpit then demonstrate proficiency in a complete FCF profile from the front cockpit. An actual FCF will not be used for front seat training. The requirement to see a FCF profile from the rear cockpit may be waived for previous F-16 qualified FCF pilots.

6.12.7.4.6. **(Added)** Previously qualified FCF pilots must complete all of the above training before receiving certification to execute 56 FW FCF flights. 56 FW units will not annotate pilots on unit Letter of X's as FCF qualified until the 56 OG/CC certification memo has been signed.

6.14.1.2.1. **(Added)** QA FCF Manager will brief the FCF Pilot, and Squadron Top 3 on reason and corrective action for HST, the aircraft configuration, internal fuel load, and the desired taxi check speed.

6.14.4. **(Added)** AMU will:

6.14.4.1. **(Added)** Process forms through QA FCF Manager using FCF procedures. Provide QA FCF Manager with a complete history of the problem to include the aircraft configuration, fuel on board, and speed at which the problem occurred.

6.14.4.2. **(Added)** Coordinate all HST checks through MOC. Prior to the operation, MOC will pass tail number, parking spot, time of taxi, and route to tower. The tower will not authorize HST checks without prior coordination with MOC.

6.14.4.3. **(Added)** Follow procedures outlined in approved local checklist.

6.14.5. **(Added)** Transient alert will coordinate through OG leadership, MXG leadership and QA for FCF/OCF.

6.14.5.1. **(Added)** QA FCF Manager will serve as the focal point to review all maintenance actions and to ensure all FCF requirements are accomplished.

6.14.5.2. **(Added)** Group leadership will coordinate with the deployed aircraft commander and home station to acquire an FCF pilot for aircraft type other than that assigned to the 56 FW.

6.14.5.3. **(Added)** If an off-station pilot is used, the FCF OIC or representative will brief the pilot on local area procedures prior to the flight.

6.14.6. **(Added)** FCF pilot responsibilities:

6.14.6.1. **(Added)** Follow the procedures outlined in the LCL 56 MXQ-2 and applicable -1, -1CL, and -1-1 TOs.

6.14.6.2. **(Added)** Prior to taxi, inform arming crew of FCF sortie for arming priority.

6.14.6.2.1. **(Added)** Taxi through arm/dearm.

6.14.6.3. **(Added)** FCF/OCF/HST procedures from Gila Bend (location code GBN):

6.14.6.4. **(Added-56 OGV Only)** Follow home station procedures with the following special instructions for pilots performing FCFs:

6.14.6.5. **(Added-56 OGV Only)** Coordinate for Sells AB airspace (above FL200) and Sells CDE airspace (above FL390). Contact Airspace Management (ext. 5855) to coordinate the required communication between Gila Bend (GBN) Tower, Luke Radar Approach Control (RAPCON), and Albuquerque (ABQ) Center before stepping. This will ensure ABQ Center clearance for the MAX climb will be relayed to you via GBN tower.

6.14.6.6. **(Added-56 OGV Only)** Contact ABQ Center (local channel 6) for your Instrument Flight Rule (IFR) clearance before climbing above FL180. Perform standard FCF checks within range airspace and begin the Mach run after established on the 170 radial outbound from GBN Tactical Air Navigation (TACAN).

6.15.5. **(Added)** AMU Responsibilities. AMU will:

6.15.5.1. **(Added)** Coordinate with W&B Program Manager to schedule and accomplish aircraft weighs.

6.15.5.2. **(Added)** Ensure W&B Flight Clearance Form F is on file for current aircraft flight configuration. If current configuration is not on file contact QA W&B manager for updated Form F.

6.16. **(Added)** F-35 Verification Information Records (VIR).

6.16.1. **(Added)** All F-35 maintenance personnel must have a current and verified Joint Technical Data Modules (JTDM) while conducting maintenance on Luke Air Force Base.

6.16.1.1. **(Added)** All MXG members will contact QA via email at **UDG_56MXG_F35QA@us.af.mil** requesting a VIR for the unverified task being performed. The subject line will include the task title as written in JTD and the JTDM code number. If an applicable VIR is available, QA will print, stamp, date, and have VIR/s ready for check out with AF IMT 1297, *Temporary Issue Receipt*. VIRs must be turned back in to QA after job completion or by 7th day from issue, whichever comes first. The VIR will become invalid when the JTDM shows verified or the revision issue numbers no longer correspond to one another. If a VIR is not available, a verification of the task will need to be accomplished with AFETS, FSE, QA and technician on site.

6.16.1.2. **(Added)** Lockheed Martin Interim Contract Support personnel shall comply with VIR procedures outlined in F-35 Standard Operating Instruction (SOI) 1511.01 and with VIR procedures identified in Interim Contractor Instruction (ICI) 14-001, Consolidated Ground Operations Procedures and ICI 14-105, document control as approved by the F-35 Joint Program Office Government Ground Flight Representative (GGFR).

7.2.1.1.1. **(Added)** See **Attachment 26** for Local Impound Checklist.

7.2.5. **(Added)** If a single incident or event occurs that involves multiple end items owned by different squadrons; then each squadron will initiate the impoundment process for their owned asset.

7.4.3.1. **(Added)** The Impoundment Official will ensure the integrity of engine FO damage areas until either the Wing FOD Monitor or the Impoundment Authority has determined if a Failure Analysis Service Technology (FAST) test is required. (If a FAST sample is required, it must be obtained prior to the contamination of any damage areas.)

7.4.4. **(Added)** QA will assist the IO in initiating impoundment and review final actions prior to authority release.

7.4.4.1. **(Added)** QA completes the impound placard information and initial heading information on all impoundment package forms and issue the impoundment package to the IO for placement on the affected aircraft, engine, or equipment.

7.5.12. **(Added)** **Attachment 25**, **Table A25.1**, Mandatory Impoundments and **Table A25.2**, Warranted Impoundments, add specific details applicable to impoundment of aircraft, engine, and equipment assigned to the 56 FW.

7.6.1.1. **(Added)** For F-16 aircraft impoundments, ensure a red-bordered AFTO 781A Impoundment Cover Sheet (obtained from QA) is placed immediately in front of the aircraft's AFTO Forms 781A. Ensure that a separate red X symbol is placed in the applicable AFTO Form 781A or AFTO Form 244 with the word "IMPOUNDED" and a statement indicating the reason for impoundment along with the name of the assigned IA and IO(s).

7.6.1.2. **(Added)** For F-35 impoundments, IO will create a single work order for all maintenance directly related to the impoundment. The IO will then create a separate work order that is titled, "Aircraft/Equipment Impounded." In the comments section of the work order, the IO will state the reason for the impoundment, the IO and IA names, and reference it to the

original discrepancy. In this work order, the following maintenance actions will be loaded under one solution set:

Table 7.1. Maintenance Actions.

a. Aircraft/Equipment requires release for maintenance
b. Forms review required by Impound Official
c. Forms review required by Impound Authority
d. Forms review required by AMU/Flight Supervision
e. Forms review required by Squadron Supervision
f. Forms review required by Quality Assurance

7.6.1.2.1. **(Added)** The maintenance action/discrepancy "aircraft/equipment requires release for maintenance" will be documented as a red X severity.

7.6.1.2.1.1. **(Added)** All other maintenance tasks not related to the impoundment must be documented separately from the two related work orders.

7.6.4.2.1. **(Added)** When a critical piece of equipment is removed from an impounded aircraft for back shop repair/bench check, ensure a red-bordered AFTO Form 350, *Repairable Item Processing Tag*, accompanies the item. The word "IMPOUNDED" will be written on the tag in the discrepancy block.

7.6.6.1. **(Added)** Upon completion of the maintenance required to clear the aircraft or equipment impoundment, the Impound Official will:

7.6.6.2. **(Added)** Ensure all maintenance actions under both related work orders have been signed off and the work order for the original discrepancy is completed, prior to the QA review.

7.6.6.3. **(Added)** Document the corrective action to release the impound IAW this supplement, under the complete tab for the "Aircraft/Equipment Impounded" work order and sign the corrected by block.

7.6.6.4. **(Added)** The owning unit will verify all signatures are completed prior to bringing to QA for review.

7.6.6.5. **(Added)** A QA inspector will review all documentation and sign the review on the appropriate impoundment worksheet and AFTO Form 781A/CMMS (F-35) work order as applicable. This review will be considered a forms review inspection and given a rating in the MSEP data base against the owning AMU or work center. Once review is complete, QA will schedule the impound release appointment with the MXG/CC or delegate. **Note:** 21FS Project Manager is the release authority for 21FS aircraft.

7.6.6.6. **(Added)** If impoundment involves a Safety Investigation, ensure release is authorized by the ISB or SIB before exercising impoundment release authority.

7.6.8.1. **(Added)** The IO will sign the "CORRECTED BY" block with the following corrective action statement: "INVESTIGATION COMPLETE, ALL CORRECTIVE ACTIONS HAVE BEEN REVIEWED, (AIRCRAFT or EQUIPMENT) RELEASED IAW AFI 21-101, (refers to original discrepancy by SEE PAGE XX ITEM XX). The Group Release Authority will sign the impoundment worksheet (to include specifying if an OCF or FCF is or is not required) and as applicable sign the "INSPECTED BY" block of the AFTO Form 781A or AFTO Form 244 red

X entry. For F-35 impoundments, IO will input identical verbiage into the applicable impoundment work order, and the IO and Group Release Authority will complete electronic signatures as appropriate.

7.6.8.2. **(Added)** The MXG/CC or delegate will sign the inspected by block to complete the "Aircraft/Equipment Impounded" work order. **Note**: 21FS Project Manager will sign inspected by block for 21FS aircraft

7.6.8.3. **(Added)** After releasing the impoundment, the IO is responsible to clear the Release Authority's impoundment discrepancy in the MIS (if applicable). Show corrective action as "AIRCRAFT RELEASED BY (Release Authority: Name and Grade) ON (Date/Time)" and clear the entry using the "INSPECTED BY" block with corresponding Release Authority's (Group/CC or Group/CD) user ID. **Note**: The IO will use his/her user ID if the corresponding Release Authority does not have a user ID or the user ID is unavailable.

7.6.10.1.1. **(Added)** In the event an aircraft is impounded off station and warranting impoundment, the proceeding procedures must be followed. The MXG/CC or designated representative may temporarily delegate Impoundment and Release Authority to the off station Group/CC. For F-35 impoundments, IO will input identical verbiage into the applicable impoundment work order, and the IO and Group Release Authority will complete electronic signatures as appropriate.

7.6.11. **(Added)** TDY and Off-Station Impoundment Procedures:

7.6.11.1. **(Added)** Aircraft that break off-station for an impoundable condition that have qualified F-16 maintenance personnel will request management of impoundment actions by the host base MXG/CC and QA, if available.

7.6.11.2. **(Added)** If requested, the applicable forms will be forwarded electronically to the applicable group QA for review and required group signatures.

7.6.11.3. **(Added)** The IO will return all impoundment documentation to QA upon return to home station if QA personnel are not deployed to the same location.

7.6.11.4. **(Added)** For off-station F-35 impoundments where an ALIS connection is not available, impoundment documentation will be completed by stand-alone PMA or as a last resort, program generated forms will be used IAW TO 00-20-1 guidance. Forms can be found in ALIS under the (Contingency Operations Plan) module.

7.6.12. **(Added)** The following impoundment procedures will be followed if engine FOD is discovered.

7.6.12.1. **(Added)** If after initial investigation, the FOD is considered to be isolated to the engine (not caused by the aircraft or related to any aircraft FOD) and the engine must be removed for repair, the owning unit will contact EMB to coordinate impoundment of the engine. **Note:** For F- 35 aircraft, AMXS supervision will determine when the engine may be removed.

7.6.12.2. **(Added)** Impound official will notify EMB of engine removal. **Note**: Not applicable for 425 AMU and 21st AMU.

7.6.12.3. **(Added)** When a FOD incident occurs during an engine maintenance run, any items contributing to the incident will be impounded (e.g., tester, CTK, AGE, anti-personnel guard or bellmouth screen).

8.1.1. **(Added)** The management of tools and equipment used in flightline work places and industrial shops that directly support on-equipment or off-equipment maintenance of aircraft equipment, components, or munitions are referred to as aircraft maintenance related tools and equipment.

8.1.2. **(Added)** Common non-dispatchable office, building and recreational tools and equipment, not assigned to a Support Section (tool/equipment issue sections), are not considered aircraft maintenance related even when assigned to a unit with an aircraft maintenance function.

8.1.3. **(Added)** Visiting Air Force units performing aircraft maintenance will ensure strict compliance with this instruction.

8.1.4. **(Added-F-35 only)** TC MAX is an option to use in conjunction with ALIS for F-35 units within the MXG.

8.1.4.1. **(Added-F-35 only)** TC MAX will only be allowed to use for the following:

8.1.4.1.1. **(Added-F-35 only)** Tool check-in/checkout.

8.1.4.1.2. **(Added-F-35 only)** Shift inventories.

8.1.4.1.3. **(Added-F-35 only)** Inspection documentation.

8.1.4.1.3.1. **(Added-F-35 only)** If used for inspection documentation, equipment that is Global Pool and requires the updating of a PAIR will have "PAIR" annotated within the inspection name to ensure requirements are updated in MMPAIRS (i.e., 365 day calibration required 2SJL00218- 0001).

8.1.4.1.4. **(Added-F-35 only)** TDY/deployment stand-alone status.

8.1.4.1.5. **(Added-F-35 only)** Hazardous material consumable tracking.

8.1.4.2. **(Added-F-35 only)** Sections using both TC MAX and ALIS will bump both systems weekly to ensure accuracy.

8.2.9.4. **(Added)** Cloth rags issued to maintenance personnel will be accounted for at all times. Dispatchable CTKs containing rags will use a container identified with an assigned CTK number and will list quantity plus container on container or will use dividers within a drawer to assign a rag location and label the divider with how many rags are to be in that assigned spot (no container required for this version). Clean and dirty rags will be identified and stored in separate containers, in a controlled area. Dirty rags will be stored in self-closing containers. The total quantity of bulk-stored rags is not required; however, these rags will remain secured and only used in a one-for-one exchange. Issue and receipt of rags will be tracked in TC MAX.

8.2.16.1. **(Added)** Section NCOIC will authorize tool room access in writing, including access for QA personnel.

8.3.6.3.1. **(Added)** Factory contents listings (non-altered) on equipment can be used as the hard copy MIL. Once an item is added or removed from that piece of equipment, a paper copy MIL must be used and reside with that equipment. The factory contents listing will become valid to be used as a hard copy MIL again, only when it matches its contents.

8.3.6.4.3. **(Added)** Detachable pieces that are removed from items to minimize FOD potential (e.g., rubber switch covers from Maglite's) will be reflected on the MIL.

8.3.11.3. **(Added)** Personal issue equipment (e.g., Personal Protective Equipment (PPE), reflective belts, cooling neckties, camelbacks, ear defenders, drinking containers, etc.) at a minimum will be clearly marked with the individual's last name and employee number.

8.5.3.4. **(Added)** A detailed serviceability inspection of all established CTK/TKs, at a minimum, will be performed every 180 days. Document this inspection in TCMAX or ALIS, as applicable. Nomenclature for the inspection will include the frequency (e.g., 180-Day, Annual, etc.). These inspections may be delegated to qualified users by the flight chief, OIC, or NCOIC. CTKs stored and not in use (e.g., mobility and deployment CTKs) only require an annual inspection until put into use. Annual inventories must be completed within 45 days and documented on a memorandum for record.

8.5.3.5. **(Added)** Electronic equipment/devices (e.g., PWCS/LMRs, E-Tools, etc.) will be assigned an EID and controlled through TCMAX or ALIS, as applicable. PWCS/LMRs, E-Tool batteries are considered consumable. Batteries not tracked in TCMAX must be marked with the owning units section or work center ID. E-Tools will be stored utilizing a method that ensures access to software updates. E-tools must be regularly updated. Refer to 00-5-1 for minimum update requirements.

8.5.3.6. **(Added)** CTKs stored and not used (e.g., mobility and deployment CTKs) are inspected as part of the annual shop inventory or when the CTK custodian changes. Document the annual inspection in TCMAX or ALIS, as applicable. When the CTK is removed from storage for use, load and document a 180-day (or sooner) inspection in TCMAX or ALIS, as applicable.

8.5.3.7. **(Added)** Document completion of the annual shop inventory and inspection with a memorandum for record noting completion of the inventory and any significant findings.

8.5.4.4. **(Added)** CTK/support equipment will not remain checked out to the same member for more than one shift (day shift to swing shift to facilitate flying) unless approved by the Production Supervisor or higher on a case by case basis. If tools and equipment are checked out for longer than a 12 hour period, the items must be long-termed in the TCMAX or 1297 being used.

8.5.5.1.1. **(Added)** OIC/NCOIC will appoint a primary and alternate Technical Order Distribution Account (TODA) library custodians to manage/update each account that uses physical media TO's and/or CPINS.

8.5.5.1.2. **(Added)** Personnel must complete the General and Advanced TO System Courses "TODA courses" located on ADLS AETC gateway **https://aetc.adls.af.mil/kc/main/kc_frame.asp?blnWhatsNew=True&guid**= within 30 days of appointment as a TODA custodian. The OIC/ NCOIC will submit an updated account information letter and completed Certificates of Training to the 56 CMS/MXQ Technical Order Distribution Office (TODO) within 5 duty days of TO course completion.

8.5.5.1.3. **(Added)** OIC/NCOIC will appoint a primary and alternate Etools Custodian to manage dedicated TO computers.

8.5.5.1.4. **(Added)** TODA Custodians will:

8.5.5.1.5. **(Added)** Pick up all CPINS for their account distribution from the TODO (BLDG959).

8.5.5.1.6. **(Added)** Pick up classified CPINS within 2 hours of notification.

8.5.5.1.7. **(Added)** Perform and document the annual check of all physical media TO's/CPIN's on subscription. If the TO/CPIN is no longer required, inform the TODO to have it removed.

8.5.5.1.8. **(Added)** Check ETIMS monthly under New Increments for TO's/CPIN's that may be of interest to your section.

8.5.5.1.9. **(Added)** Verify existence of tech-data in eTools viewer (ETIMS Library Catalog.exe)

8.5.5.1.10. **(Added)** For needed digital TO's that are not loaded in the TO library, submit requests to the MXG/TODO with justification to have digital TO's loaded into the eTools viewer. If digital TO's are available, paper copies for the same TO are not authorized (unless approved by the 56 MXG/CC)

8.5.5.1.11. **(Added)** TODA custodians will ensure all needed CPIN's are showing on subscription in ETIMS and the ETIMS on hand quantities match with the physical on hand amounts.

8.5.5.1.12. **(Added)** Only the primary or alternate TODA custodians are authorized to perform TO postings and inspections of classified TO's and CPIN's. TODA's must be specified on the appointment letter.

8.5.5.1.13. **(Added)** An AF Form 310 will be issued by the TODO with each classified increment received. All classified material must be destroyed in accordance with DOD 5200.1-R and AFI 16- 1404.

8.5.5.1.14. **(Added)** AF Form 310 will be retained for classified material for 2 years.

8.5.5.1.15. **(Added)** If an entire classified TO or CPIN is no longer needed, the TODA will contact 56 MXG TODO to lower the subscription quantity and generate an AF Form 310 for destruction of classified TOs or CPINs. Rescinded CPINs will be removed from ETIMS by TODA within 30 days.

8.5.5.1.16. **(Added)** Identify any issues regarding the operation of the eTools within their section.

8.5.5.1.17. **(Added)** Bring all eTools with identified issues to the eTools office for repair and pick up when completed or identified as needing warranty repair. The eTools Custodian may delegate someone else to pick up and drop of the eTools. The eTools office is located at BLDG 959.

8.5.5.1.18. **(Added)** Ship out and track any eTools designated by the eTools office as requiring warranty repair. All eTools that have shipped out and/or come back will be reported to the ITAM's Custodian that owns the computer.

8.6.1.2.1.4. **(Added)** The first four characters are specified in **Attachment 30**; the last five are determined by the CTK custodian. Bar codes without the EID annotated on the label are not considered properly marked.

8.6.1.2.1.5. **(Added-F-35 only)** Each unit that has absorbed additional work centers into their AMU will have an MFR on hand within the CTK program binder to list which CTKs will have a different EID due to the transfer of JSF programs CTKs/tools.

8.6.1.4.2.1. **(Added)** All tools located inside the tool box must contain all 9-digits of the EID.

8.6.1.4.2.2. **(Added)** Equipment within a CTK that requires recurring special inspections or calibration (e.g., torque wrenches) must have the inspection status loaded in the tool accountability system against the CTK to which it is installed. Test, Measurement and Diagnostic Equipment (TMDE) items may have an individual EID different from the CTK EID. If the item EID differs from the CTK EID, the EID and TMDE number (if applicable) must be annotated on the MIL.

8.6.1.4.5.2. **(Added)** An attempt must be made to etch, mark, or stamp every tool with an EID. Items that have been deemed too small to etch, mark, or stamp will be placed in a container unless CTK is JSF provided and does not allow for modification. JSF items not marked as described above will be identified on the MIL as "not etched". Containers must have a tag, placard, label, or equivalent list attached to the item or written on the case (e.g., 2ea #10 hex apex, 3ea #8 TT apex + container + lid = 7 pcs).

8.6.1.4.6. **(Added)** Keys will have the CTK number annotated on an attached tag, chit, or aircraft streamer (combination of items is at unit option). Use spiral-type (split-ring circular) rings to attach keys identification tag, chit, or aircraft streamer. Checklist rings, ties or any other method is prohibited. List the lock (if removable), key, key ring, and appropriate tag, chit, and aircraft streamer (if equipped) on the MIL as a single line entry with a quantity set of one. If security devices (e.g., cables, locking bar, etc.) are not permanently attached to the CTK, mark the items with the EID and add them to the MIL.

8.6.8. **(Added)** Support equipment/special tools that are issued separately will have a unique EID assigned and controlled in an Individual Issue Bin (IIB). The IIB will be controlled in the same manner as a CTK; additionally, the MIL must contain the EID for each item. Tool sizes for CTKs/TK/IIBs will be listed on the MIL.

8.6.8.1. **(Added)** Locally Manufactured tool requests dated prior to May 2011 are not required to have all the aforementioned items documented.

8.7.4. **(Added)** All locally manufactured or developed tools/equipment placed in CTKs will be listed as Mod or Local Man and include either the MXG number assigned to the tool, or a TO reference if the tool was made per TO specifications.

8.7.5. **(Added)** Request for new tool approval must include a description, diagram or picture of the item, intended use, list of materials required, and procedures for building the item. LME placed in CTKs/TKs will be identified on the MIL with the applicable MXG number assigned to the tool, or a reference to the applicable TO giving local manufacture guidance.

8.8.1.4. **(Added)** The production superintendent and support section personnel are authorized to perform job site (on-site) transfers of tools and equipment. TCMAX or ALIS as applicable will be updated to reflect the change in custodial responsibility.

8.9.2.1.1.1. **(Added)** For items lost in aircraft movement areas, refer to 56 MXG Quick Reaction Checklist for Quick Freeze procedures.

8.9.2.7. **(Added)** Lost Item Reports:

8.9.2.7.1. **(Added)** When notified of a lost item/tool, the MOC will assign a sequentially generated report number.

8.9.2.7.2. **(Added)** Flight/AMU supervision will ensure personnel submit a completed Luke AFB Form 89, 56 FW Lost Item Report to QA NLT 24 hours after the search has ended.

8.10. **(Added) Warranty and Replacement Tool Management Procedures:**

8.10.1. **(Added)** Unserviceable warranty tools will be brought to the Air Force Repair and Enhancement Program (AFREP) section and placed in respective unit's warranty bin. The tools will be accepted at the discretion of the AFREP representative. When non-warranty tools require replacement, check for stocked items prior to purchasing tools through other base/local channels (Does not apply to FMS).

8.10.2. **(Added)** All tool purchases must be approved by CTK custodian.

8.10.3. **(Added)** Replacement tools will be stored, labeled, and secured in separate bins based on type/size (e.g., #8 APEX etc.). A TCMAX record will mirror quantity on-hand. F-35 units will record quantities in ALIS. Replacement tools will not be issued without receipt of the unserviceable tool or documentation indicating lost tool procedures are met.

8.11. **(Added) Aircrew Flight Equipment (AFE):**

8.11.1. **(Added)** Aircrew Flight Equipment sections will follow guidance in AFI 11-301 V1, Luke AFB Supplement, Aircrew Flight Equipment Program, for tracking CTKs. TCMAX is not required for AFE sections

8.12. **(Added)** Crash Recovery and Hydrazine Response (Emergency Response Vehicle) CTKs:

8.12.1. **(Added)** Crash Recovery/Crash Damaged or Disabled Aircraft Recovery and Hydrazine Response equipment/tools in emergency response vehicles will be maintained as a CTK.

8.12.2. **(Added)** Inventory and document emergency response vehicle CTKs each duty day during the vehicle operator pre-use inspection. An AETC Form 1042, CTK Tool Checklist, will be maintained in each vehicle to document use of equipment, inventories, and inspections.

8.13. **(Added)** Special Requirements for explosion proof lights, lamps, and lanterns used in Class 1 Hazardous Environment:

8.14. **(Added)** Engine blade blend CTKs and engine blade blend blue dye:

8.14.1. **(Added)** Engine blade blend CTKs and blue dye will only be signed out by individuals on SCR. Exception: Production Superintendents, SNCOs or OIC may release to or request from other AMUs for use of blend kits.

9.5.2.2. **(Added-F-35 only)** PEB guidance, only red and green will be used for flagging. Bins will be flagged GREEN at the reorder threshold and above; bins will be flagged RED at the reorder threshold and below. Quantities will have to be verified through ALIS.

9.17.2.1.1. **(Added)** Each squadron has designated local manufacture approval authorities. Requests for local manufacture are made through the requesting squadron's local manufacture approval authority to the fabricating squadron's approval authority. Squadron Commanders, Maintenance Superintendents, Flight OICs/Superintendents, Unit OICs/NCOICs, and Production Superintendents are approval authorities.

9.17.2.2.1. **(Added)** LM approval authorities will ensure this maintenance capability is not abused.

9.17.2.6. **(Added)** Upon notification of LM request, the fabricating LM approval authority will verify source maintenance recoverability (SMR) code and if required, the fabricating element will request proper depot disposition to authorize local manufacture. The requesting activity, if

possible, will provide a sample or technical order information and/or drawings of the LM item and assist in identifying and obtaining required materials.

9.17.2.7. **(Added)** After LM request has been approved and completed; the fabricating LM approval authority will ensure the depot requisition is canceled.

9.19.7. **(Added)** Use padded panel racks to store panels/parts removed from aircraft and equipment to FOM. Take protective measures to prevent damage to panels/parts resulting from placement (e.g., LO coated panels stored while resting on tips).

11.6.6. **(Added)** Aircraft crew chief will:

11.6.6.1. **(Added)** Safe aircraft per TO **Note**: EPU pin not required for crypto key. If engine is operating, nose pin not required.

11.6.6.1.1. **(Added)** During Red Ball maintenance, aircraft Dash-21 covers and plugs, such as intake, exhaust and probe covers will not be installed on the aircraft due to possible injury to personnel and/or damage to aircraft or equipment. If the aircraft subsequently ground aborts, perform applicable recovery procedures in accordance with specific TO guidance prior to any further troubleshooting or maintenance. All other MDS specific safe for maintenance actions are still required prior to any Red Ball maintenance activities unless otherwise noted.

11.6.6.2. **(Added)** For F-16 aircraft, if engine shutdown is required to perform Red Ball maintenance, ensure ONLY the crew chief is in communication with the aircrew to perform engine shutdown.

11.6.7. **(Added)** Maintenance technicians performing Red Ball maintenance will:

11.6.7.1. **(Added)** Report to the crew chief in charge of launch procedures. Verify appropriate safe for maintenance was performed.

11.6.7.2. **(Added)** For F-16 aircraft, DO NOT instruct the aircrew to place the Main Power switch to OFF during engine operation.

11.6.7.2.1. **(Added)** For F-16 aircraft, before requesting an aircrew member to place the Main Power switch to Battery, technicians must verify the EPU mode switch is OFF and the EPU safety pin is installed. The Main Power switch may be placed to Battery ONLY for Permanent Magnet Generator and Central Air Data Computer malfunctions. NEVER direct the aircrew to shut down the aircraft; if aircraft shut down is required to perform Red Ball maintenance, direct the individual in charge of the launch (crew chief), to shut down the aircraft.

11.6.8. **(Added)** AMU dispatcher or debrief will:

11.6.8.1. Document Red Ball in IMDS/ALIS and start each discrepancy block with Red Ball.

11.6.8.2. **(Added)** Notify the expediter and debrief of Red Ball job control number see **paragraphs 5.2.5.3.4.7.1.1** and **5.2.5.3.7** for periods when MIS is down. All entries will be entered as soon as the MIS becomes operable.

11.8.3.1.2.1. **(Added)** The aircraft forms binder should be stored in the forms pouch sewn into the aircraft intake plug or cover, flightline storage bins, or CTKs when not in use on the flightline. No other items are authorized in the forms pouch at any time.

11.8.3.1.4. **(Added)** Screw bags, panels and latches:

11.8.3.1.4.1. **(Added)** Store non-captive fasteners and other small hardware (e.g., panel screws, washers, spacers, clamps etc.) in a screw bag attached to the panel/part when items are not reinstalled directly following a maintenance action. **Note**: Screw bags will remain readily visible when panels/parts are temp-installed on the aircraft. Temp-installed items shall be documented in applicable forms.

11.8.3.1.4.2. **(Added)** At a minimum, screw bags will be marked with end item/LRU nomenclature and the nomenclature and quantity of contents.

11.8.3.2.3.1. **(Added)** F-16 Block 42 CG/DG model guards will have the adapter link attached to the beam bracket using cable NSN 4010-01-145-8455 or 4010-00-286-2681 (location marked number 4.

11.8.3.2.3.2. **(Added)** F-16 Block 25 C/D model guards do not require adapter link used on F-16 Block 42 CG/DG and therefore adapter link does not need to be attached to the beam bracket using cable.

11.8.3.2.4. **(Added)** If the aircraft engine is operated and the aircraft is shutdown as part of a maintenance procedure requirement (i.e., Red Ball), an intake FOD inspection is not required as long as the pilot or aircraft operator remains at the aircraft with the intent to restart.

11.8.3.3.1. **(Added)** F-16/F-35 aircraft/engine plugs and covers will be removed immediately prior to crew show. Removed covers will be secured to prevent FOD from high winds and jet blast. **Note**: Aircraft/engine inlet plugs will be removed upon crew show during forecasted or actual Wind Condition II, as defined by the MXG Quick Reaction Checklist.

11.8.3.3.2. **(Added)** Remove identification plates/rivets from aircraft covers to prevent potential FOD.

11.8.3.6.1.1. **(Added)** All loose/dangling items will be stowed within 25 feet of running aircraft/engines. Restricted Area Badges (RAB) secured within an armband may remain on arm.

11.8.3.6.6.1. **(Added)** When eyewear is necessary for performing duties in and around engine danger areas, it will be secured with a band or strap.

11.8.3.6.7. **(Added)** Wear of the seasonal watch cap is authorized in open-air maintenance environments. Ear defenders will be worn over the watch cap within 25 feet of operating aircraft engines. Personnel will ensure the effectiveness of ear defenders is not reduced in any way.

11.8.3.6.8. **(Added)** Wear of personal issue floppy hats is authorized in open-air maintenance environments as a means of protection from desert climate conditions. When worn, floppy hats must be secured with chin strap to mitigate potential sources of FOD. Floppy hats will not be worn within 25 feet of operating aircraft engines or during Phase II wind conditions.

11.8.3.6.9. **(Added)** Wear of personal issue cooling towels is authorized in open-air maintenance environments as a means of protection from desert climate conditions. Cooling towels will not be worn within 25 feet of operating aircraft engines or during Phase II wind conditions.

11.8.3.6.10. **(Added)** Hydration packs (e.g., Camelbak, Platypus, Osprey, etc.) are authorized in open-air maintenance environments to mitigate heat/dehydration risks.

11.8.3.6.11. **(Added)** Personal backpacks are authorized in maintenance areas unless otherwise listed as prohibited.

11.8.3.6.12. **(Added)** Mission Ready Airman (MRA) Instructors are authorized to carry mission essential items in personal issue or individual issue bags. When in maintenance areas, bags will remain zipped or otherwise closed when not in use to prevent potential FOD.

11.8.3.6.13. **(Added)** Contractors may purchase items equivalent to the personal issue items authorized in this instruction and will follow all wear restrictions.

11.8.3.6.14. **(Added)** 56 MXG/QA and 56 FW/CVF personnel are not required to wear a hat while driving a Low Speed Vehicle to perform duties when going to and from building 959 to an authorized no hat area.

11.8.3.7.1.1. **(Added)** Individual/personal issue FOD bags are authorized and will be capable of securing in the closed position.

11.8.3.7.1.2. **(Added)** All vehicle and area FO containers will be prominently labeled, "FO" or "FOD" in a contrasting color.

11.8.3.7.1.3. **(Added)** All vehicle FO containers will be verified as empty upon issue and turn-in.

11.8.3.8.1. **(Added)** At the completion of each job or task, and/or prior to leaving the immediate area where maintenance or inspections have occurred, a FOD check will be accomplished.

11.8.3.8.2. **(Added)** Airfield Management and AMU's will report aircraft maintenance related FO to the Wing FOD Monitor weekly.

11.8.3.10.2. **(Added)** FOD walks will be accomplished during hours of daylight and prior to the first launch or recovery of the flying day. When the flying day starts just prior to sunrise, a FOD walk will be accomplished after sunrise, and prior to the next launch or recovery operation.

11.8.3.10.3. **(Added)** A towable sweeper or FOD Boss will be assigned to each unit.

11.8.3.10.3.1. **(Added)** Pre-use inspections will be accomplished in addition to any inspection and maintenance guidance provided in manufacturer instructions.

11.8.3.10.3.2. **(Added)** Units will use towable sweepers/FOD boss prior to each scheduled flying window to ensure FO free aircraft movement areas. At a minimum, each unit will sweep the taxi stripes within their assigned aircraft parking ramp and adjacent portions of taxiways. **Note**: When operationally feasible, units will sweep areas prior to each set of scheduled launches.

11.8.3.10.4. **(Added)** Units will conduct a FOD walk of EOR taxi areas prior to the first use of each flying day.

11.8.3.10.5. **(Added)** A FOD walk will be accomplished daily when aircraft are present in hangars.

11.8.3.12.4. **(Added)** Personnel will not introduce unnecessary sources of potential FOD to aircraft, engines, AGE, or components thereof. Only items essential to the task at hand will be taken by an individual on, inside, or near openings of aircraft, engines, and AGE.

11.8.3.12.5. **(Added)** A drop cloth will be used any time maintenance is being performed in the cockpit that could present an FOD hazard.

11.8.3.12.6. **(Added)** Glass bottles and aluminum cans are permitted inside vehicles and in non-maintenance areas.

11.8.3.12.6.1. **(Added)** Paper cups…Disposable drinking containers will be secured in an effort to reduce sources of potential FOD.

11.8.3.12.7. **(Added)** Aircraft parking spot storage bins will be secured to a fixed object and/or contain ballast weight. When not inputting/removing items, aircraft parking spot storage bins must be secured closed at all times to prevent introduction of FOD hazards during high winds and jet blast.

11.8.3.13.1. **(Added)** Anti-personnel guards and bellmouth screens will be inspected for FOD and serviceability prior to and after engine runs. These inspections, and the guard/screen EID, will be documented in aircraft forms/MIS.

11.8.3.13.2. **(Added)** Remove identification plates and rivets from anti-personnel guards and bellmouth screens to prevent ingestion during ground run operations.

11.8.3.13.3. **(Added)** All loose items on anti-personnel guards will be secured with cables/swedges to prevent ingestion during ground run operations.

11.8.3.13.4. **(Added)** Remove two cotter pins from the line bolt and secure the castellated nuts by brazing.

11.8.3.15.1. **(Added)** The AGE sub-pool yards located on TWY Bravo and TWY Echo are considered a continuous part of the flightline. No FOD check is required when exiting back on to the flightline, provided the sub-pool is policed for FO with a FOD walk, sweeper, and/or FOD Boss (or equivalent) at least once per shift.

11.8.3.17.1. **(Added)** Magnetic bars are required on all vehicles designated for use primarily on the flightline. Magnets should be placed on the front of vehicles when possible to maintain ground clearance regardless of load. **Note**: Vehicles that are leased and or cannot be modified are not required to have magnetic bars installed.

11.8.3.17.2. **(Added)** Magnetic bars will be inspected for debris and cleaned upon vehicle turn in and shift change.

11.8.4.1.2. **(Added)** Units will post all material required by the FOD prevention program with or near FOD prevention POC information. Reference the Wg FOD Prevention SharePoint for currently required documents.

11.8.4.2.1.1. **(Added)** While organizations may designate personnel to assist with FOD/DOP prevention directives, leadership teams will remain the primary point of contact for the FW FOD Prevention Program.

11.8.5.4.2.1. **(Added)** Ensure contractors subject to FOD prevention guidance are trained on FOD awareness and FOD prevention responsibilities.

11.8.6.7.1.2. **(Added)** The Wing FOD Monitor will ensure the FW/CV and MXG/CC are notified once FOD investigations are completed.

11.8.7.2.13. The following awards are established to promote a proactive and engaged FOD prevention culture. All day-pass awards will be at the discretion of AMU/Flight leadership. Nominations will be submitted to **56FW.FOD@us.af.mil**.

11.8.7.2.13.1. **(Added)** Quarterly FOD Poster Contest. Posters must be on standard 8.5" X 11" format. The creator of the winning poster will receive a 2-day pass.

11.8.7.2.13.2. **(Added)** Monthly FOD Fighter Award. Any person may nominate an individual for a FOD Fighter Award at any time during the award month. This award is for anyone contributing significant value to the FOD Prevention Program. Winners receive a 1-day pass.

11.8.7.2.13.3. **(Added)** Quarterly FOD Fighter Award. Winners are selected from the monthly FOD Fighter nomination pool and will receive a 2-day pass and a trophy or plaque.

11.8.7.2.13.4. **(Added)** Annual FOD Fighter Award. Winners are selected from monthly/quarterly award contenders and will receive a 3-day pass and trophy or plaque.

11.8.7.2.13.5. **(Added)** The Golden Bolt. Golden bolts will be placed throughout the MXG complex on a regular basis to promote FOD awareness. Any individual who finds the Golden Bolt will receive a 1-day pass.

11.8.7.2.13.6. **(Added)** The above awards are subject to change based upon availability and funding.

11.9.2.3. **(Added)** The Luke AFB Form 88, 56th Fighter Wing Dropped Object Worksheet will be utilized to document/investigate all items classified as dropped objects.

11.9.2.3.1. **(Added)** Units will route Dropped Object Worksheets through AMU leadership (or equivalent) for review and signature. AMU leadership will route the worksheet to Maintenance Supervision for review and signatures. Maintenance Supervision will submit signed worksheets to: **56fw.fod@us.af.mil** NLT 48 hours after the MOC dropped object notification.

11.14.1.2.1. **(Added)** Once all forms documentation/maintenance actions are completed, units must notify QA prior to first flight for the final review (flight for release from Hangar Queen status). QA will be notified through MOC a minimum of 8 hours prior to first flight.

11.14.1.2.2. **(Added)** For aircraft experiencing extended Hangar Queen down time, units may request QA perform Hangar Queen forms review at 30 day intervals.

11.16.1.1. **(Added)** Limit the number of intake/exhaust certifiers to two individuals per unit to ensure standardized training and certification.

11.16.1.2. **(Added)** Ensure intake and exhaust technicians and certifiers attend the initial training course conducted by 372 TRS (FTD) or 56 MXG (MTS). **Note**: 425 AMU personnel will attend intake and exhaust course taught by MTS.

11.17.5.4.3.1. **(Added)** Prolonged engine operation with the throttle positioned past the idle stop (i.e., troubleshooting requiring engine to run up and stabilize past idle stop) is not permitted on spot one of aircraft rows 10-15, 28-41, and spots one and two of row 27. Launch and recovery of aircraft is allowed.

11.17.5.4.3.2. **(Added)** Due to exhaust fume and jet blast hazards in hangar 995 (Egress), engine operation is not permitted on aircraft row 41, spots 3, 4, and 5.

11.17.5.4.3.3. **(Added)** For Luke AFB quiet hours refer to LUKEAFBI 13-204, *Airfield Operations and Base Flying Procedures.*

11.17.5.4.3.4. **(Added)** When utilizing trim pad 5 during hours of darkness, ensure one portable floodlight set is placed on each side of the aircraft.

11.17.5.4.3.5. **(Added)** 56 FW units performing engine run procedures at Gila Bend Auxiliary Field will follow established Gila Bend requirements and all applicable Luke AFB engine run requirements depending on unit of assignment. F-35 aircraft will be positioned on the open ramp in a way so that exhaust blast is directed toward airfield and away from other personnel.

11.17.6.5. **(Added)** Personnel have until the last day of the month in which their annual recertification is due to recertify. Work center supervisors ensure personnel who do not meeting minimum requirements are decertified and be recertified by completing initial recertification requirements. If the certifier will not re-qualify the individual, it will be up to the individual's supervision to enroll the individual into the initial formal training course. If enrollment is not permitted, permanently decertify the individual.

11.17.8.1.1. **(Added-56 MXG Only)** MOC will grant engine run clearance only to those individuals with current certification dates listed in IMDS (MIS). MOC will update the engine run database after each MX run performed. MOC will grant engine run clearance to Lockheed Martin Interim Contract Support Personnel based on Special Certification Roster provided by LM to the MOC.

11.17.8.1.2. **(Added)** Only MTS personnel are authorized to update the 90-day proficiency in IMDS (MIS). MTS personnel will update IMDS 90-day engine run proficiencies each weekly with information from the MOC engine run database. Exceptions will be made by MTS on a case by case basis.

11.18.1.1. **(Added)** In addition to the selection criteria set forth in **Table 11.1**, AFSC 2A3X3, 2A3X4, 2A6X6 personnel must possess a 5-skill level or higher with 6 months experience on the F100-PW-220/220E/229 engine.

11.18.6.1. **(Added)** Fill out blade blend worksheet/pinwheel or applicable form with the following information; engine serial number, stage number, number of blades blended, depth of damage before and after blend, area of damage and employee number/stamp number of maintenance personnel.

11.18.6.1.1. **(Added)** Notify EM section and forward blade blend worksheet/pinwheel or applicable form to the FW FOD Prevention office and EM section for filing. The EM section will transcribe information into the applicable engine/module records (i.e., AFTO IMT 95; if applicable) and CEMS, IAW TO 00-20-1. **Note:** Not applicable for 425 AMU.

11.18.7. **(Added)** The MTS instructor will add a journal entry and start date in the individuals ITP within TBA upon completion of initial formal training course.

11.18.8. **(Added)** Complete initial blade blend certification within 120 days of completing the formal training course. If certification is not accomplished within 120 days, personnel must re-attend the formal training course held at the MTS

11.19.2.2.1. **(Added)** Borescope proficiency for -220 engines will be 180 days and tracked under local course code 000007 in the MIS.

11.9.2.2.2. **(Added)** Certified individuals who PCS to the same MDS and engine TMSM may by-pass the formal training course. These individuals must be re-certified by a certifier prior to being added to the SCR. Carry over the date of original class completion from previous documentation (certificate, training record, MIS printout). **Note**: If applicable, assigned AFETS/CETS should be used to certify other certifying officials.

11.19.2.5. **(Added)** Prior to enrollment into formal training, personnel will be selected IAW criteria established in Table 11.1 of this (parent) instruction.

11.19.2.6. **(Added)** Certification Criteria: Certifying officials will be the most qualified 7- or 9-level 2A6X1, 2A3X3, 2A3X7, 2A5X1X, 2A5X2, or AFETS/CETS.

11.19.2.7. **(Added)** Documentation: After completing formal training, the instructor signs off the individual's ITP within TBA. Upon certification, personnel are placed and tracked on the SCR. Ensure that all borescope inspections are loaded against the engine and not the aircraft.

11.19.2.8. **(Added)** MTS will ensure the following course codes are tracked in the MIS:

11.19.2.8.1. **(Added)** Formal training borescope course.

11.19.2.8.2. **(Added)** Proficiency requirement.

11.19.2.8.3. **(Added)** Annual recertification.

11.25.8.6.1. **(Added)** Hot pit certifiers who PCS with proper qualifications/certifications may retain their status when deemed appropriate by SCR approver.

11.25.12. **(Added)** Personnel are decertified if they fail to meet any proficiency requirements or special requirements IAW **Table 11.2**

Table 11.2. (Added) Proficiency Requirements or Special Requirements.

Position	Required Training	Proficiency Requirements	Special Requirements
Squadron Certifier	I, II, III	1 Hot Refuel Semi-Annually	Annual Evaluation and one time PE by-QA Chief Inspector
Pad Supervisor	I, II, III	1 Multiple Hot Refuel Semi-Annually	Annual Evaluation by QA or Squadron Certifier
Refuel A,B,C,D Member	I, II, III	1 Hot Refuel Semi-Annually, "C" Annually	Annual Evaluation by QA or Squadron Certifier
Decertified Squadron Certifier or Pad Supervisor	Repeat II, III		Recertification must be started within 90 days or Phase I will also be completed PE by QA Chief Inspector
Decertified A,B,C,D	Repeat II, III		Recertification must be started within 90 days or Phase I will also be completed

11.44.4.9. **(Added)** Ensure personnel are in proper wash attire. Steel-toed work boots and tan or coyote brown t-shirts with cotton or nylon shorts of a subdued color is permitted. Cut off shorts are not authorized. FMS/contractors are authorized to attend the wash in unit authorized uniforms. When temperatures fall below 75 degrees Fahrenheit, wet weather gear will be provided for added comfort.

11.44.9.1. **(Added)** CAUTION: Current attire is approved for use only with the orison type IV: SC-Aircraft and metal cleaner product. Changing from SC-Aircraft cleaner to another aircraft soap/cleaner will require full PPE wash attire for safety and health concerns. See industrial Hygiene survey for Shop 104A (310TH AMU) for the Certified PPE Listing.

11.44.4.10. **(Added)** All aircraft panels must be fully installed before the aircraft is placed on the wash

11.44.4.11. **(Added)** Notify wash facility supervisor and the applicable AMU PS&D when an aircraft wash is postponed, late, or cancelled.

11.44.4.12. **(Added)** Ensure lubrication requirements after wash are met IAW applicable directives. See unit assigned wash JST for lubrication documentation requirements. For Aircraft being washed prior to Paint Barn input, AMU will omit after-wash lubrication until after it has been towed out of the paint facility IAW Local Checklist EMS-11.

11.44.4.13. **(Added)** Ensure three personnel are provided per aircraft wash. As a minimum, two of three personnel provided will be fully wash qualified and trained on aircraft wash procedures. Each AMU will provide a letter or list of qualified wash personnel every 90 days to the wash rack supervisor.

11.46. **(Added-F-16 only) Single-Person Launch and Recovery.**

11.46.1. **(Added)** Single-Person Launch and Recovery Certification (SPL/R):

11.46.1.1. **(Added)** A1Cs (2A353) or higher are authorized to perform single-person launch. Certification procedures for SPL/R personnel and certifiers/trainers are outlined below.

11.46.1.2. **(Added)** Certifiers will be selected by the AMU OIC/Superintendent and must be highly qualified SSgt (2A373) or higher with SPL/R experience. In the event that previous SPL/R experience personnel are not available, personnel will be trained by QA and pass the same SPL/R requirement. Once all prerequisites are met, certifying personnel will be added to the Special Certification Roster (SCR) using course code 000102 (Single-Person Launch Recovery Certifier). Final approval level for addition to the SCR is AMXS Maintenance Operations Officer or Superintendent.

11.46.1.3. **(Added)** Qualified SPL/R personnel will be highly competent A1C (2A353) or higher selected by the TAMS Section Chief. Selected personnel will be trained by certifiers and will perform two SPL/R operations with zero discrepancies prior to being qualified. Training will place special emphasis on safety awareness and aircraft danger areas. Upon training completion, qualified personnel will be signed off on SPL/R in TBA by a certifier prior to performing a SPL/R unsupervised. A journal entry will also be added by a certifier stating that the trainee has completed all requirements and is qualified to perform SPL/R.

11.46.2. **(Added)** Single-Person Launch and Recovery Procedures:

11.46.2.1. **(Added)** Production Superintendents will coordinate with Ops (Top 3) which lines will be single-person launch/recovery prior to crew show. Upon arrival at the aircraft the crew chief will identify to the pilot that he/she will be performing a single-person launch/recovery. Safety is paramount and requires vigilant adherence by both the ground crew and the pilot to ensure hands remain clear of all controls and throttle while the crew chief is not in direct visual contact with the pilot. Prior to disconnecting communications on launch and prior to approaching the aircraft on recovery, the crew chief will get clearance from the pilot and signal the pilot to keep hands up until visual or voice communication is established. All other procedures for SPL/R are outlined in the applicable -6 work cards.

11.47. **(Added-F-35 only) Quick Access Panels.**

11.47.1. **(Added-F-35 only)** When aircraft are left un-attended, panel 2108 (Maintenance Interface Panel), panel 2107, and panel 1111 (Internal Boarding Ladder) can be left open during maintenance operation hours or when weather conditions permit. All connections will be covered, canopy closed and boarding ladder stowed when left un-attended.

14.1.4.13.1. **(Added)** Flying Window and Turn Times: The daily fly window should be kept at eight hours or below. The following turn time guidelines should be followed:

Table 14.4. (Added) Turn Time Guidelines.

a. Air-to-Ground: minimum 2.5 hours from landing to take-off
b. Air-to-Ground (inert): minimum 3 hours from landing to take-off
c. Air-to-Ground (live): minimum 3.5 hours from landing to take-off

14.1.4.13.1.1. **(Added)** XC T/O & Returns: If XC return T/O, land, or configuration is unknown, place the X/C return line number on the flying schedule and place "TBD" where the data is unknown. Schedule X/C lines from local base in a local line number.

14.1.4.13.1.2. **(Added)** AVUM/SARM will: Serve as OG points of contact (POCs) for flying time reporting.

14.1.4.13.1.3. **(Added)** Reconcile the MIS product or AUR and Graduate Training Integration Management System (GTIMS) aircraft histories file that has been updated with data taken directly from AFTO Form 781, ARMS Aircrew/Mission Flight Data Document daily. AVUM/SARM will notify the AMU debrief of any errors discovered and changes made to AFTO Form 781 after initial MIS input.

14.1.4.13.1.4. **(Added)** The SARMs and debrief sections will ensure times and sorties are corrected.

14.1.4.13.1.5. **(Added)** The GTIMS daily sortie report is a tool for daily accounting of sortie/hour utilization. The operations officer or designated representative will review the daily sortie report for accuracy, resolve conflicts, and update GTIMS as required.

14.1.4.13.1.6. **(Added)** Weekend flying activity inputs will be included in the GTIMS daily sortie report created on the first fly day of the following week. Deployments that return on the first fly day of the week will have their data included on that day's report.

14.1.4.13.1.7. **(Added)** The SARMs will keep the MIS product or AUR on file until that month's flying data has been verified as correct by 56th Operations Support Squadron (OSS) Current Operations Flight. Flying time monitors will complete this weekly review before 1600 hours on the second duty day of the following week.

14.1.4.13.1.8. **(Added)** OSS Current Operations Flight will: Serve as the wing POC for flying hour reporting.

14.1.4.13.1.9. **(Added)** Review the flying hour reconciliation spreadsheet weekly from Plans, Scheduling, and Documentation (PS&D).

14.1.4.13.1.10. **(Added)** Forward the reconciliation spreadsheet to the SARMs for required corrections.

14.1.4.13.1.11. **(Added)** Notify PS&D when corrections have been made.

14.1.4.13.1.12. **(Added)** Maintain a file of the daily AURs or MIS product, to verify monthly flying hour close-out figures with PS&D.

14.1.4.13.1.13. **(Added)** PS&D will: Ensure the completeness and accuracy of flying hours; however, the MIS flying hour data is the official reporting source.

14.1.4.13.1.14. **(Added)** AMU Debrief will: Reconcile with FS flying time monitor daily to ensure flying hours and sorties match.

14.1.4.13.1.15. **(Added)** Use screen #174, AUR or review the applicable ALIS product to ensure all debriefs have been input into the MIS. Notify SARMs of any discrepancies found.

14.1.4.13.1.16. Review the flying hour reconciliation spreadsheet weekly from PS&D. If errors are found, identify and correct errors. Notify PS&D of any changes.

14.1.6.7. **(Added)** P&S will request Weight and Balance Handbook 24 hours prior to picking it up and will ensure aircraft Weight and Balance files are returned back to QA no later than 7 days after aircraft has returned to station. Aircraft transferring to another base permanently is the exception to the return portion of this.

14.2.2.2.3.1. **(Added)** PS&D will maintain an automated jacket file for each aircraft assigned. Jacket files will be arranged according to the master jacket file. **Note**: 21st and 425th PS&D will maintain a combination of both physical and electronic records.

14.2.2.4.2.4. **(Added)** Document annual aircraft jacket file inspection in the automated history.

14.2.2.4.3. **(Added)** In the event of an aircraft accident, mishap or impoundment, PS&D will control and limit access to affected aircraft jacket file and historical records as directed by the Accident Investigation or Impound Official.

14.2.3.1.1.1. **(Added)** All blocks on ADR checklist must be initialed, employee number and dated by the appropriate agencies and completed package must be returned to PS&D.

14.2.5.1.5.4. **(Added)** Ensure all JCNs listed in the work package are closed out in IMDS prior to the post- dock meeting. PS&D will print a screen 123 Maintenance Repair History Inquiry (using date range from first day of fuel barn until the last day of phase) out of IMDS to be filed in the phase package. Once everything is updated and completed (within 3 duty days of post-dock), the package will be filed in the jacket file.

14.3.1.2. **(Added)** The 56 EMS COR office (Transit Alert) will use LUKEAFB Form 318, *Contract Monitoring and Surveillance Report* to document contractor discrepancies.

14.3.1.2.1. **(Added)** 56 MXG COR office (21 FS) will use LUKEAFB Forms 323, *QAP Investigation Worksheet*; 324, *Route and Review of COR Reports*, 325, *Correction Action Request,* and 326, *Customer Complaint Record*.

14.3.3.3.2.2.4. **(Added)** 425 AMU receives Special Technical Instruction (STI) same as TCTO. The selected Singapore TODO will route STI through trades and then to 56 AMXS. When routed, will bring to PS&D to load and schedule. On Air Force TCTO's Emergency or Urgent will be routed and loaded by PS&D., If an Air Force Cot has been released for Singapore. TODO will bring TCTO to PS&D then PS&D will give it to 425 Supervision to see if it can be done.

14.3.3.3.2.3.2.3. **(Added)** MIS product.

14.3.4.3.3.3.6. **(Added)** CAD/PAD TCI extensions requests are submitted using the GACP. F-35 units will request all CAD/PAD TCI extensions through the AR process. 425 Weapons orders there CAD PAD through Singapore. AFK uses courtesy storage for their Cad Pad items.

14.3.4.3.4.4.1. **(Added)** Request Non CAD/PAD TCI extensions using 107 process. F-35 units will use the AR process.

14.3.4.3.9.1. **(Added)** All work centers performing time changes will: Notify PS&D whenever a TCI is removed in the MIS for any reason other than a scheduled time change. All inspection and TCI suspense's will be processed by PS&D only.

14.3.4.3.9.2. **(Added)** PS&D will load all egress installed TCIs to applicable DOI or DOM job standards in IMDS; ensure data is entered in all applicable data fields when loading TCIs in IMDS. **Note:** 425 AMU PS&D loads and schedules all DOM and DOI, JST's, TCI's for the aircraft.

14.3.4.3.9.3. **(Added)** Aircrew Flight Equipment (AFE) will load all installed TCIs to applicable DOM or DOI job standards in IMDS; ensure data is entered in all applicable data fields when loading TCIs in IMDS. Ensure applicable inspection events are complied with in IMDS. Verify part number, serial number, and due date of all parachute/survival kit components during annual repack. Verification will be conducted using IMDS screen #701 and maintain copies with source documents AFTO 338/392. Inform PS&D of AFE equipment transfers so that it may be deleted from IMDS as necessary.

14.3.4.3.11.2. **(Added)** Armament will order M-61A1 gun TCIs (with PS&D) when the gun is between 6,000 and 8,000 rounds from due time.

14.3.5.2.1. **(Added)** QA (**56MXG.MXQ.56MXGQA107Dispo@us.af.mil**) will act as FW point of contact for all 107s requests. Unit/work centers requesting a 107 will fill out and route the Request for Depot Assistance Worksheet and the Nonconforming Technical Assistance Request and Reply (found on QA SharePoint **https://usaf.dps.mil/teams/aetc-luk-56mxg/MXQ/SitePages/Home.aspx**). All 107 requests will be routed by originator to AMU leadership for approval, then to QA. QA will review the 107 requests to ensure technical accuracy, ensure all local repair resources have been exhausted, and record concurrence/non-concurrence on Request for Depot Assistance Worksheet. QA will submit 107 website, and forward to Maintenance Operations PS&D once completed courtesy copying MXG and squadron operations leadership. All applicable coordinating authorities and all approving authorities require wet ink signature concurrence (digital signatures are acceptable if routing electronically). Once completed, the worksheet will be returned to PS&D for submittal. F-35 units will use the Action Request submission process to request off-base assistance. Each unit will have a standardized process to identify their OSP chains to ensure accuracy. See below paragraphs for CAT 1 Action Request submission procedures. The MXG/CC will approve all 107M or CAT 1/CAT 2 AR submissions that are requesting DFT/CFT support.

14.3.5.2.1.1. **(Added)** USAF Aircraft Air Vehicle Cat 1 ARs: The AR will be generated by the applicable organization or back shop and reviewed by an Optional Screening Point (OSP) within that organization in the CRM tool. The AR will then be reviewed by AMU/flight/back shop supervision. Once approved, applicable supervision will forward the AR to the QA distribution account "UDG_56 MXG_F35 QA" courtesy copying MXG and squadron operations leadership. QA will review and submit the AR in the CRM tool as the Required Screening Point (RSP).

14.3.5.2.1.2. **(Added)** EMS production will seek local disposition for structural damages not outlined in JTD by submitting a request to 56 MXG F-35 AFETS organizational box with details of damage requiring repair. Once local disposition is approved, the Production Superintendent will send back a signed authorization to the repairing organization triggering maintenance start. Prior to maintenance action being completed or end of shift, the maintainer will initiate an "Info Only" CAT II low AR prior to signing off the repair. Additionally, the initiator will upload the signed local disposition as an attachment to the applicable aircraft/equipment "Info Only" AR. Once the AR is OSP approved, an email is to be sent to the F35 QA org box requesting RSP action.

14.3.5.2.1.3. **(Added)** When a Depot Field Team (DFT) or Contract Field Team (CFT) is authorized to perform depot level maintenance, the specific work accomplished will be annotated in the automated history. Narrative will include a detailed discrepancy and repair action taken.

14.3.6.1.1.3. **(Added)** PS&D will:

14.3.6.1.1.3.1. **(Added)** Ensure no items are missing from aircraft or loaded incorrectly using the Planning Requirement (PRA) prior to accepting the aircraft.

14.3.7.1. **(Added)** AVDO will process gain transaction for aircraft once the AFTO Form 781 is received.

14.3.7.2. **(Added)** PS&D will:

14.3.7.2.1. **(Added)** Receive the aircraft jacket file from owning AMU and distribute all records to appropriate agencies.

14.3.7.2.2. **(Added)** Review records and make any necessary TCTO, TCI, and SI updates and schedule all workable TCTOs and overdue/due maintenance in IMDS.

14.3.7.2.3. **(Added)** Update flying hours manually in IMDS.

14.4.1.3.11.2. **(Added)** Preparation for shipment of F-35 engines will be performed by the owning AMU in conjunction with Pratt & Whitney FSR's, according to program supply-chain requirements.

14.5.1.5.8.1. **(Added)** All updates/changes to GTIMS will be made NLT COB on Wednesday. All schedules will be completed NLT 1200 Thursday, prior to forwarding to MXG/CD NLT 1500 on Thursday (This is on a 5 work day week, it will adjust accordingly on short weeks).

14.5.6.3.1.3.8. **(Added)** AMUs are assigned sortie sequence numbers IAW following Table:

Table 14.5. (Added-56 MXG) Assigned Sortie Sequence Numbers.

UNIT	HOME STATION	DEPLOYED/ OFF STATION	ADD (HOME STATION)	FCF/OCF
21 AMU	001-040	041-080	081-095	096-100
61 AMU	101-140	141-180	181-195	196-200
310 AMU	201-240	241-280	281-295	296-300
63 AMU	301-340	341-380	381-395	396-400
308 AMU	401-440	441-480	481-495	496-500
425 AMU	501-540	541-580	581-595	596-600

RESERVED	601-640	641-680	681-695	696-700
309 AMU	701-740	741-780	781-795	796-800
62 AMU	801-840	841-880	881-895	896-900

14.5.6.3.1.3.8.1. **(Added)** See **Attachment 33** for AF Form 2407, *Weekly/Daily Flying Schedule Coordination* (56 MXG Routing/Approval Process*).*

GREGORY KREUDER,
Brigadier General, USAF
Commander, 56th Fighter Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

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

AFI 21-101 AETCSUP 1, *Aircraft and Equipment Maintenance Management*, 10 August 2020

AFI 33-322, *Records Management and Information Governance Program*, 22 March 2020

AFMAN 11-202V3, *Flight Operations*, 10 June 2020

AFMAN 11-218, *Aircraft Operation and Movement on the Ground*, 5 April 2019

AFMAN 11-218_AETCSUP 1, *Aircraft Operation and Movement on the Ground*, 1 August 2019

AFMAN 91-201_AETCSUP, *Explosives Safety Standards*, 15 Jul 2018

AFPAM 11-205, *Aircrew Quick Reference to Aircraft Cockpit and Formation Flight Signals*, 9 August 2018

DAFMAN 11-401, *Aviation Management*, 27 October 2020

DAFMAN 13-201, *Airspace Management*, 10 December 2020

DESR6055.09_AFMAN 91-201, *Explosives Safety Standards*, 28 May 2020

LUKEAFBI 13-204, *Airfield Operations and Base Flying Procedures*; 19 April 2017

LUKEAFBI 21-114, *Crash Damaged or Disabled Aircraft Recovery*, 27 July 2017

LUKEAFBI 21-117, *Product Improvement Program*, 21 June 2019

TO 00-20-1, *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and Procedures*, 6 September 2019

TO 1-1-300; TO TW/SN/1F-16A/C/CM/CJ-6, 15 March 2012

TO TW/SN/1F-16A/C/CM/CJ-1, *Flight Manual*, 1 June 2018

LCL 56 MXQ-2, *High Speed Taxi Checklist*, 1 September 2018

Prescribed Forms

LUKEAFB Form 88, *Dropped Object Worksheet*

LUKEAFB Form 89, *56th Fighter Wing Lost Item Report*

LUKE AFB Form 151, *Boresight and Coefficient Data Adopted Form*

LUKEAFB Form 318, *Contract Monitoring and Surveillance Report*

Adopted Forms

AF Form 614, *Charge Out Record*

AF Form 847, *Recommendation for Change of Publication*

AF Form 1256, *Certificate of Training*

AF Form 2407, *Weekly/Daily Flying Schedule Coordination*

AF IMT 310, *Document Receipt and Destruction Certificate*

AF IMT 853, *Air Force Wildlife Strike Report (Bird Strike Checklist*)

AF IMT 1297, *Temporary Issue Receipt*

AF IMT 2047, *Explosives Facility License*

AF IMT 3136, *(General Purpose) Oil/Hydraulic Cart Servicing Log*

AFTO Form 187, *Technical Order Publications Request*

DD Form 2861, *Cross Reference*

Abbreviations and Acronyms

ABQ—Albuquerque

ACPINS—Automated Computer Program Identification Number System

ADCC—Assistant Dedicated Crew Chief

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFRC—Air Force Reserve Command

AFTO—Air Force Technical Order

AGE—Aerospace Ground Equipment

AIM—Air Intercept Missile

AIR—Aviation Into-plane Reimbursement

ALIS—Autonomic Logistics Information System (F-35)

AMA—Acceleration Monitor Assembly

AME—Alternate Mission Equipment

AMU—Aircraft Maintenance Unit

AMXS—Aircraft Maintenance Squadron

AR—Action Request (F-35)

ARMS—Aviation Resource Management System

ASM—Aircraft Structural Maintenance

AVDO—Aerospace Vehicle Distribution Officers

AVUM—Aviation Unit Management

BDU—Bomb Dummy Unit

BE—Bio Environmental

CAC—Curriculum Advisory Committee

CANN—Cannibalization

CATM—Captive Air Training Missile

CCI—Controlled Cryptographic Item

CFT—Contract Field Team

CMMS—Computer Managed Maintenance System (F-35)

CMS—Component Maintenance Squadron

COMSEC—Computer Security

CPINS—Computer Program Identification Number System

CTK—Consolidated Tool Kit

DCC—Dedicated Crew Chief

DFT—Depot Field Team

EFT—External Fuel Tank

EID—Equipment Identifier

EM—Engine Maintenance

EMB—Engine Management Branch

EOD—Explosive Ordinance Disposal

EOR—End of Runway

EPU—Emergency Power Unit

FCF—Functional Check Flight

FO—Foreign Object

FOD—Foreign Object Damage

FS/CC—Fighter Squadron Commander

FS—Fighter Squadron

FSE—Field Service Engineer

FSR—Field Service Representative (F-35)

FW—Fighter Wing

GACP—Global Ammunition Control Point

GBN—Gila Bend

GOV—Government Owned Vehicle

GTIMS—Graduate Training Integration Management System

HST—High Speed Taxi

IA—Impound Authority

IAT—Individual Aircraft Tracking

IAW—In Accordance With

IFF—Identification Friend or Foe

IFR—Instrument Flight Rule

IMDS—Integrated Maintenance Data System

IO—Impoundment Official

IPI—In-Process Inspection

ISB—Interim Safety Board I

TP—Individual Training Plan

JCN—Job Control Number

JTD—Joint Technical Data

LAU—Launcher

LCL—Local Checklist

LCN—Local Control Number (F-35)

LM—Local Manufacture

LM—Lockheed Martin

LMR—Land Mobile Radio

LO—Low Observation

LRU—Line Replaceable Unit

LST—Lightning Support Team

MFL—Multiple Fault List

MIL—Master Inventory List

MIP—Maintenance Interface Panel

MIS—Maintenance Information System

MSEP—Maintenance Standardization and Evaluation Program

MOC—Maintenance Operations Center

MOF—Maintenance Operations Flight

MOO—Maintenance Operations Officer

MTS—Military Training Section

MX SUPT—Maintenance Superintendent

MXG/CC—Maintenance Group Commander

MXG/CD—Deputy Maintenance Group Commander

MXG—Maintenance Group

MXS—Maintenance Squadron

NCOIC—Non-commissioned Officer In Charge

NDI—Non-Destructive Inspection

NLT—No Later Than

NRR—Noise Reduction Rating

NTC—Network Training Center

OAP—Oil Analysis Program

OCF—Operational Check Flight

OG—Operations Group

OIC—Officer In-Charge

OPR—Office of Primary Responsibility

OSP—Optional Screening Point (F-35)

OSS—Operations Support Squadron

OTI—One Time Inspection

PAIRs—Production Asset Inspection Requirements

PEB—Pre Expended Bin

PGM—Precision Guided Munitions

PIP—Product Improvement Manager

PMA—Portable Screening Point (F-35)

POC—Point Of Contact

PPE—Personal Protective Equipment

PS&D—Plans, Scheduling & Documentation

PW—Pratt & Whitney

PWC—Performing Work Center

QA—Quality Assurance

RA—Resource Advisor / Release Authority

RAPCON—Radar Approach Control

RDS—Records Disposition Schedule

RIL—Routine Inspection List

RSP—Required Screening Point

SARM—Squadron Aviation Resource Management

SAU—Signal Acquisition Unit

SCR—Special Certification Roster

SE—Support Equipment (F-35)

SI—Special Inspection

SIB—Safety Investigation Board

SMR—Source, Maintenance and Recoverability

SOI—Sustainment Operating Instruction

SUP—Supplement

TA—Transient Alert

TBA—Training Business Area

TC Max—Asset Management Software

TCI—Time Change Item

TCTO—Time Compliance Technical Orders

TDY—Temporary Duty

TER—Triple Ejection Rack

TMDE—Test, Measurement and Diagnostic Equipment

TMSM—Type Model Series Modification

TO—Technical Order

TODA—Technical Order Distribution Account

TODO—Technical Order Distribution Office

TP—Target Practice

UTD—Unit Training Device

UWA—Underwing Adapters

VCO—Vehicle Control Officer

WAM—Wing Avionics Manager

W&B—Weight and Balance

WLT—Weapons Load Training

WTT—Weapons Tactics Trainer

WUC—Work Unit Code

WWP—Wing Weapons Pylons

Attachment 25 (Added)

AIRCRAFT, ENGINE, AND EQUIPMENT IMPOUNDMENT TABLES

A25.1. Aircraft, Engine, and Equipment Impoundment Tables.

A25.1.1. Any aircraft, engine, or equipment reportable incident or unusual occurrence may require impoundment; each event will be evaluated on a case-by-case basis. Mandatory impoundments are outlined in AFI 21-101, Chapter 7 and Table A25.1. below. Any aircraft, engine or equipment with the potential for impoundment will be treated as such by being placed on impoundment freeze until it is determined by an approved Impound Authority that impoundment is not justified. No maintenance will be performed until a determination for impoundment is made by an approved Impoundment Authority.

A25.2. Using Impoundment Tables.

A25.2.1. When using the impoundment tables "Conditions" column, pay particular attention to keywords; i.e., the use of "in-flight" means that condition only applies to those that occurred in-flight. The absence of keywords mean all conditions apply; i.e., in-flight, on-ground, installed, removed, by aircrew or by maintenance personnel. Similarly when using the notes column carefully read specific conditions typically noted as Includes or Excludes.

Table A25.1. Mandatory Impoundments.

Mandatory Impoundments as Outlined in AFI-21-101, Chapter 7.		
21-101 para #	**Conditions**	**Notes**
7.5.1.	When the Impoundment Authority determines extraordinary measures are required to address any degradation of aircraft airworthiness or serious aircraft/equipment anomaly.	
7.5.2.	Following an aircraft ground or flight related mishap as defined in AFI 91- 204 and AFMAN 91-223.	
7.5.3.	When support equipment is known or suspected to have been a factor in a mishap or may have contributed to injuries.	
7.5.4.	Following an uncommanded flight control movement. Special attention is required to completely diagnose and correct flight control malfunctions. (Following impoundment for uncommanded flight control movement, the MXG/CC and OG/CC will determine the need for an FCF/OCF).	

7.5.5.	Following an inadvertent ordnance release or explosive mishap.	
7.5.6.	When authorized procedures are not adequate or the unit is unable to identify or repair loaded nuclear weapons system malfunctions within the criteria of AFI 91-107, *Design, Evaluation, Troubleshooting, and Maintenance Criteria for Nuclear Weapons Systems.*	
7.5.7.	For aircraft engine anomalies to include but not limited to:	
7.5.7.1.	Unselected propeller reversal. (N/A for F-16/F-35 aircraft)	
7.5.7.2.	Flameout/stagnation (for single engine aircraft).	
7.5.7.3.	Unselected power reversal.	
7.5.7.4.	Engine case penetration, rupture, or burn-through from an internal engine component.	
7.5.7.5.	When an aircraft experiences a loss of thrust sufficient to prevent maintaining level flight at a safe altitude. This includes all cases of multiple engine power loss or roll back.	
7.5.7.6.	Engine damage due to a foreign object and source of FO is determined to be internal to the engine and requires removal for repair will result in the engine being impounded. Aircraft impoundment is not required.	
7.5.7.7.	Engine damage which occurs during transport.	
7.5.8.	Following an in-flight fire.	
7.5.9.	When an aircraft experiences an in- flight loss of all pitot-static system instruments or all gyro stabilized attitude or direction indicators.	
7.5.10.	When there is evidence of intentional damage, tampering, or sabotage.	

7.5.11.	When physiological incidents attributable to aircraft systems or cargo occur. (Crew members become ill during flight).	
56 FW Added Mandatory:		
1.	General Mishaps and Incidents (On and Off-Equip).	
1.1.	Aircrew unintended departure from paved surface, runway, taxiway.	
2.	Flight Controls and Instruments (On-Equip Only).	
3.	Weapons (On-Equip).	
3.1.	Uncommanded release of munitions or stores.	1. No attempt was made to release munitions or stores from the selected station (uncommanded release 2. Excludes multiple release of munitions or stores where quantity released is greater than quantity selected and release occurs simultaneously or concurrently from selected station(s) (See also, Table A2.2., item 2.1.)
3.2.	Late release of munitions or stores.	- Munitions or stores were selected and attempted to be released but took greater than 10 seconds after expected release (See also this table item 1.1. and Table A2.2., item 2.1. & 2.2.)
4.	Emergency Power Unit (EPU) (On- Equip Only).	
4.1.	In-flight failure of EPU to activate or operate when commanded manually or automatically.	
5.	Engine	
5.1.	(Installed Engines Only)	
5.1.1.	Stall	- Exclude stalls that occur with throttle in augmenter range or pilot induced through syllabus/checklist requirements.
		- FCF requirements may apply, see applicable -6 TO
5.1.2.	In-flight engine shutdown.	- Exclude under this category any engine that recovers without being shutdown

		- Uncommanded in-flight engine shutdown
		- FCF requirements may apply, see applicable -6 TO

Table A25.2. Warranted Impoundments.

Warranted Impoundments as Outlined in AFI-21-101, Chapter 7.		
21-101 para #	**Conditions**	**Notes**
7.3.1.2.	Impoundment Authorities will determine if impoundment is warranted when:	
7.3.1.2.1.	An aircraft landing gear fails to extend or retract due to an unknown condition.	
7.3.1.2.2.	When the aircraft has been confirmed as being contaminated with chemical, biological, or radiological materials.	
7.3.1.2.3.	When an aircraft sustains FO damage from an unknown cause.	
56 FW added warranted impoundments		
1.	General Mishaps and Incidents (Aircraft and Equipment).	
1.1.	Repeat or recurring malfunctions that warrant a more in-depth investigation	
2.	Weapons	
2.1.	Multiple release of munitions or stores.	- Includes multiple release of munitions or stores where quantity released is greater than quantity selected and release occurred simultaneously or concurrently from selected stations
2.2.	Hung munitions or stores.	- Munitions or stores selected but did not release or fire
		- Munitions or stores must return safely from flight
2.3.	Gun sudden stoppage, double feed or serious malfunction.	
3.	Environmental (On-Equip Only).	

3.1.	Damage from high temperature bleed air.	
4.	Electrical	
	(On-Equip Only)	
4.1.	Unusual or recurring power bus interruptions.	
4.2.	Burnt or melted components.	- Include only when isolated to that component
		- Consider possibility of external cause for damage or external failures created as the result of damage
4.3.	Unusual malfunction when more than one system is affected or other significant event related to wire chafing.	
5.	Emergency Power Unit (EPU) (On-Equip Only).	
5.1.	Recurring or unusual hydrazine leak	
6.	Aircraft General (On-Equip Only)	
6.1.	Main Fuel Shutoff Valve (MFSOV) abnormality.	
6.2.	Simultaneous failure of A and B hydraulic systems.	- Excludes indication malfunctions
		- Includes over-pressurization or under-pressurization
7.	Landing Gear, Brakes, Steering (On-Equip Only).	
7.1.	Nose wheel steering recurring fail or hard-over failure.	
8.	Engines	
8.1.	Unusual noise or vibration	- Includes installed engines

Attachment 26 (Added)

LOCAL IMPOUNDMENT CHECKLIST

Table A26.1. Local Impoundment Checklist.

	Impoundment Actions	Status
1	Impoundment authority directs impoundment and assigns an impoundment official.	
2	Enter a Red X in the applicable forms and MIS (F-16)/CMMS (F- 35) indicating the reason for impoundment and the name of the individual assigned as impoundment official.	
3	Notify the MOC of impoundment decision.	
4	Select a team of highly qualified technicians to determine cause of problem that led to the impoundment.	
5	Control access to impounded aircraft or equipment and determine if an entry control point (ECP) is required. If ECP is established, use an access control log.	
6	Determine necessary controls required for aircraft and equipment records.	
7	Review aircraft or equipment forms and MIS (F-16)/CMMS and equipment forms (F-35) for historical data related to the malfunction causing impoundment.	
8	Ensure maintenance is limited until the cause of impoundment is determined.	
9	Ensure parts removed are carefully controlled.	
10	Once the cause of the malfunction has been determined and corrected, determine if an OCF or FCF is necessary or required.	
11	Ensure QA is intimately involved in the impoundment process and has reviewed all actions taken to correct the malfunction.	
12	QA determines the need for cross-tell based on the potential effect to other aircraft and equipment.	
13	Brief release authority on findings and corrective actions, and request release from impoundment.	
14	Impoundment release authority clears or directs the impoundment be cleared in the applicable aircraft or equipment forms (F-16)/CMMS or equipment forms (F-35).	

Attachment 27 (Added)

AIRCRAFT MAINTENANCE CONFIGURATION REQUIREMENTS (F-16)

Table A27.1. Aircraft Maintenance Configuration Requirements.

	Carts	ACMI Pod	AMD/AMA Pod	Inert Missiles	Chaff/Flare	20MM "TP"	20MM Other Than "TP"	Rockets	Live Bombs	BDU-33's	Inert Heavies	Sta's 1 & 9 Launchers	Sta's 2 & 8 Lau's w/UWA's	Sta's 3 & 7 Pylons	Sta 5 Pylon	370-Gallon Tanks	300-Gallon Tank	Nav and Target Pods
Tripod Jacking (Note 4)	R	O	O	R2	R	O	R	R	R	R	R	O	O	O	O	O	O	O
Axle Jacking	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Towing	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Wash Rack	R	R	R	R	R	O	R	R	R	R	R	O	O	O	O	O	O	R
Hush House	R	R2	O	R2	R	O	R	R	R	R	O	O	O	O	O	O	O	O
Trim Pad	R	R2	O	R2	R	O	R	R	R	R	O	O	O	O	O	O	O	O
Fuel Barn	R	R	R	R	R	R	R	R	R	R	R	O	O	O	O	O	O	O
Alt. Fuel Cell	R	R	R	R	R	R	R	R	R	R	R	O	O	O	O	O	O	O
WLT	R	R	R	R	R	R	R	R	R	R	R	I	I	I5	I6	I6	I6	O
MTF (FTD)	R	R	R	R	R	R	R	R	R	R	R	I3	I3	I3	I	O	O	O
Phase	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Paint Barn	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Paint Barn Wash	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Boresight	R	R	R	R	R	R	R	R	R	R	R	I	O	O	O	O	R	R
All other Hangars	R	R2	R1	R1	R	O	R	R	R	R	R	O	O	O	O	O	O	O
Maint. In Gun System Area	R	O	O	O	O	R	R	O	O	O	O	O	O	O	O	O	O	O
Weight And Balance	R	R	R	R	R	R	R	R	R	R	R	I	R	R	R	R	R	R
FCF	R	R	R	R	R	O	O	R	R	R	R	I	R	R	O	R	R	R
Engine Removal	R	O	O	O	R	O	R	R	R	O	R	O	O	O	O	O	O	R
Major Maint.	R	O	O	O	R	O	R	R	R	O	R	O	O	O	O	O	O	R
Static Display	**Refer to AFI 11-209, Air Force Aerial Events, for applicable guidance**																	

Notes:

1. AMD/AMA Pods and Inert Missiles may remain on 21st and 425th aircraft provided they have been electrically disconnected.
2. Item may remain loaded provided it has been electrically disconnected.
3. Ensure station 1 or 9 has a LAU-129, station 2 or 8 has an under wing missile adapter, station 3 or 7 has a wing weapons pylon, and station 5 has an empty centerline pylon.
4. Boresight data can be found in aircraft forms on Luke AFB Form 151, *Boresight and Coefficient Data*
5. WLT aircraft will be configured with at least 1 Block 50 wing weapons pylon to support -1760 munitions loading. A TER-9/A configured for heavy-weight bombs will be installed on the opposite wing

weapons pylon. 6. WLT aircraft will be configured with at least 2 370-gallon tanks on stations 4 & 6 or 1 300- gallon tank on station 5. 7. Components must be removed for full paint maintenance. These components may remain installed on the aircraft with approval of the Fabrication Flight Chief or EMS Production Superintendent for touch-up paint maintenance.
R = Remove I = Install O = Optional

Attachment 28 (Added)

AIRCRAFT MAINTENANCE CONFIGURATION REQUIREMENTS (F-35)

Table A28.1. F-35 Aircraft Maintenance Configuration Requirements.

	Inert Missiles	Flare	25mm "TP"	25mm Other than "TP"	Live Bombs	Inert Heavy Muns	Internal AME	External AME
Tripod Jacking (Note 1 & 4)	**R**	**R**	**R**	**R**	**R**	**R**	**O**	**O2**
Axle Jacking (Note 1 & 4)	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
Towing	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
Wash Rack	**R**	**R**	**O**	**R**	**R**	**R**	**O**	**O**
Fuel Barn	**R**	**R**	**R**	**R**	**R**	**R**	**O**	**O**
Alt. Fuel Cell	**R**	**R**	**R**	**R**	**R**	**R**	**O**	**O**
WLT	**R**	**R**	**R**	**R**	**R**	**R**	**I3**	**O3**
MTS (FTD)	**R**	**R**	**R**	**R**	**R**	**R**	**O**	**O**
Phase	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Paint Barn (LO)	**R**	**R**	**R**	**R**	**R**	**R**	**O**	**R**
All Other Hangers	**R**	**R**	**R**	**R**	**R**	**R**	**O**	**O**
Maint. In Gun System Area	**O**	**O**	**R**	**R**	**O**	**O**	**O**	**O**
Weight and Balance (Note 4)	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
FCF	**R**	**R**	**R**	**R**	**R**	**R**	**R**	**R**
Engine Removal	**O**	**R**	**O**	**R**	**R**	**R**	**O**	**O**
Major Maintenance	**O**	**R**	**O**	**R**	**R**	**R**	**O**	**O**
Static Display	**Refer to AFI 11-209, Air Force Aerial Events, for applicable guidance, and 56FW/CVN Office for details**							

Notes:
1. Refer to JTD DM F35-AAA-A0721010000-136A-A, Aircraft - Jacking, and F35-AAA-A0721010000-136B-A, Aircraft - Jacking (Engine Removal and Installation)
2. Stations 2 and 10 Pylons must be removed if wing jacking is being performed.
3. At a minimum there will be 1x LIB/BRU-68 collector installed on station 4 or 8 and 2x LAU-147s installed on stations 5/7. There may be further requirements based on expanding load training requirements. Any additional requirements will be discussed during weekly shared resources meeting.
4. In the event multiple LRUs or large LRUs are removed and the aircrafts center of gravity is in question, contact the assigned Weight and Balance manager for configuration requirements.

R = Remove I = Install O = Optional

Attachment 29 (Added)

EVENT ID NUMBERS BY SECTION

Table A29.1. Section JCN.

IMDS
0001-3999

Plans, Scheduling, and Documentation
Time Compliance Technical Orders (TCTO) 4225-4354
425 (ELC 8026) 9000-9399
21 (ELC 8027) 9000-9399

Engine Management Flight
TCTOs 4355-4454
Time Changes 4455-4554
425 (ELC 8026) 9400-9499

MXG
Quality Assurance 4555-4579

372 Training Squadron
Detachment 12 4580-4749

Weapons Standardization
Support Section Manual JCNs 4750-4999

Aerospace Ground Equipment (AGE) Flight
South R & I 5050-5124 FMS 5125-5174
North R & I 5175-5249 SP & D 5250-5274
Production Support 5275-5299
Reserved for Future Use 5000-5049
Reserved for Future Use 5300-5324

Armament Flight
310 Combat Armament Support Team (CAST) 5325-5349
21 CAST 5400-5424
425 CAST 5425-5449
309 CAST 5500-5524
Support 5525-5549
Alternate Mission Equipment 55505574
20MM Gun Shop 5575-5599
Reserved for Future Use 5350-5374
Reserved for Future Use 5375-5399
Reserved for Future Use 5450-5474
Reserved for Future Use 5475-5499

Munitions Flight
Non-nuclear Munitions Storage Area 6225-6249
Munitions Control 6250-6274

Accessory Flight
Egress 5600-5624
Fuel Shop 5625-5649
Electro/Environmental Shop 5650-5674
Pneudraulic Shop 5675-5699
Reserved for Future Use 5700-5724

Avionics Flight
Automated Test Stations 5725-5749
Reserved for Future Use 5775-5849

Fabrication Flight
Metals Technology 6000-6024
Aircraft Structural Maintenance 6025-6074
Survival Equipment 6075-6099
Nondestructive Inspection Lab 6100-6124
Reserved for Future Use 6175-6199

Maintenance Flight
Wheel and Tire 6125-6149
Transient Alert 6200-6224

Maintenance Flight (Phase)
Dock 1 A300-A399 B300-B399
Dock 2 A600-A699 B600-B699
Dock 3 A500-A599 B500-B599
Dock 4 A200-A299 B200-B299
Boresight Hangar A700-A799 B700-B799
USAF Phase Support Section Manual JCNs 4050-4074
F-16 AMU 309th/310th
Maintenance Dispatch 4000-4024/4175-4199
Expediter 6600- 6624/8100-8124
Debriefing 6625-6649/8125-8149
Cannibalizations 6650-6674/8150-8174
Deployed
Cannibalizations 6675-6699/8175-8199
Debriefing 6700-6724/8200-8224
UnscheduledMaintenance6725-6749/8225-8249
Scheduling
Scheduled Maintenance 6750-6774/8250-8274
TCTOs 6775-6799/8275-8299

Time Changes 6800-6824/8300-8324
Support 6825-6849/8325-8349

F-16 AMU 425th/21st
Maintenance Dispatch 8700-8899/4075-4099
Expediter 7350-7374/8350-8374
Debriefing 7375-7399/8375-8399
Cannibalizations 7400-7424/8400-8424
Deployed
Cannibalizations 7425-7449/8425-8449
Debriefing 7450-7474/8450-8474
Unscheduled Maintenance 7475-7499/8475-8499
Scheduling
ScheduledMaintenance7500-7524/8500-8524
TCTOs7525-7549/8525-8549
Time Changes 7550-7574/8550-8574
Support 7575-7599/8575-8599

425th Phase Dock
#1 Phase: A400-A499
#2 Phase: B400-B499
425th Phase Support Section Manual JCNs 4200-4224

21st Phase Dock
#1 Phase: A800-A899
#2 Phase: B800-B899
21st Phase Support Section Manual JCNs 4125-4149
Time Changes 6800-6824/8300-8324 Support 6825-6849/8325-8349

F-16 AMU 425th/21st
Maintenance Dispatch 8700-8899/4075-4099
Expediter 7350-7374/8350-8374
Debriefing 7375-7399/8375-8399
Cannibalizations 7400-7424/8400-8424
Deployed
Cannibalizations 7425-7449/8425-8449
Debriefing 7450-7474/8450-8474
Unscheduled Maintenance 7475-7499/8475-8499
Scheduling
Scheduled Maintenance 7500-7524/8500-8524
TCTOs 7525-7549/8525-8549
Time Changes 7550-7574/8550-8574
Support 7575-7599/8575-8599
425th Phase Dock
#1 Phase: A400-A499
#2 Phase: B400-B499

425th Phase Support Section Manual JCNs 4200-4224
21st Phase Dock
#1 Phase: A800-A899
#2 Phase: B800-B899
21st Phase Support Section Manual JCNs 4125-4149

Attachment 30 (Added)

CTK WWID PREFIXES FOR LUKE AIR FORCE BASE

Table A30.1. CTK WWID Prefixes for Luke Air Force Base.

56th Aircraft Maintenance Squadron	
21 AMU	LY5F
21 AMU Gov QAP	LY5F
425 AMU	LY5E
425 AMU (JIEM)	LY5H
61 AMU	LY5D
62 AMU	LY5A
63 AMU	LY5G
Foreign Military Sales (FMS)	LY5K *(for base management equip only)
756th Aircraft Maintenance Squadron	
308 AMU	LY5J
309 AMU	LY5B
309 AMU Deployed	LY5C
310 AMU	LY7C
56th Operations Group Fighter Squadron	
21 FS	LYOG
Reserve	LYOT
308 FS	LYOJ
309 FS	LYOS
310 FS	LYOH
425 FS	LYOW
61 FS	LYOP
62 FS	LYOQ
63 FS	LYOR
56th Component Maintenance Squadron Maintenance Operations Flt	
Weapons Standardization	LYMW
Maintenance Training Flt	LYMT
Mission Readiness Airman	LYMR
Quality Assurance	LYXQ
AFETS	LYMA
56th Component Maintenance Squadron: Accessories Flt	
Avionics Backshop	LYCC
Fuels	LYCF
Jet Engine Org MX	LYCT
Egress	LYCG
Electro-Environment	LYCE, Excluding LYCELR109 thru LR114
Pneudraulics	LYCP

TMDE	LYCV
56th Equip Maintenance Squadron Maintenance Flt	
Transient Alert	LYET
Wheel and Tire	LYEW
Phase	LYEU and LYEX
Aerospace Ground Equip Flt	LYEG
Armament Flt	LYEB
Munitions Flt	
Conventional Maintenance	LYEC
Missile Maintenance	LYEY
Storage	LYEH
Equipment Maintenance	LYEQ
Inspection	LYEI
Fabrication Flt	
Metals Technology	LYEM
Survival Equip	LYES
Nondestructive Inspection (NDI)	LYEN
Aircraft Structural Maintenance (ASM)	LYER
Low Observation (LO)	LYEA
Fuels Management Flt	LYEK
Instrumental (ACMI)	LYRC
CE- Electrical Power Production	LYPP

Attachment 31 (Added)

REQUEST FOR DEPOT ASSISTANCE WORKSHEET

Figure A31.1. Request for Depot Assistance Worksheet.

NONCONFORMING TECHNICAL ASSISTANCE REQUEST AND REPLY	
PRIORITY	
1. TO (Unit Office Symbol)	
2. FROM (Unit Office Symbol)	
3. DATE	
4. CONTROL NUMBER	TBD
5. NOUN	
6. PART NUMBER	
7. NATIONAL STOCK NUMBER	
8. SERIAL/TAIL NUMBER	
9. UNIT AIRCRAFT ASSIGNED TO	
10. T.O./DWG NUMBER	
11. WORK STOPPAGE	○ YES (DATE) (MM/DD/YYYY) ○ NO
12. ORGANICALLY CAUSED (i.e. Maintenance Induced Damage)	○ YES ○ NO
A/C DEFICIENCY REGION	
A/C BLOCK	
A/C FLYING HOURS	
PROBLEM POC	
13. Quality Assurance Notified	TBD
14. DEFICIENCY AND RECOMMENDATIONS	

Attachment 32 (Added)

F-16 ENGINE RELATED OPERATOR DEBRIEF CHECKLIST

A32.1. Operator Debrief Checklist.

A32.1.1. This checklist is to be filled out by the aircrew and used as an informational guide by maintenance technicians in the event of an engine anomaly. Immediately notify Production Superintendent of condition prior to releasing aircrew member(s) from debrief section for an impoundment. An impoundment is warranted and/or mandatory if a pilot used key phrases or phrase fragments as listed below:

Note:
1. "Engine Flameout, Loss of Thrust, Compressor Stall, Stagnation, Unusual noise or Vibration, Case penetration or burn through, Fire"
2. "No throttle response, Throttle binding"
3. "Bird/Wildlife engine ingestion"
For engine "Loss of Thrust" see AFI 21-101, para 7.5.7.5. Also follow applicable steps in the following Technical Orders:
(1F-16C-2-70FI-00-21 Table 1-11 for block 25, 32)
(1F-16CG-2-70FI-00-21 Table 1-10 for block 42)

Table A32.1. Engine Related Operator Debrief Checklist.

Procedures						
1	Operator Debrief					
	a	Aircraft serial number:				
	b	Operator(s) name:				
	c	Date/Time of event:				
	d	Debriefer(s) name:				
2	Prior to Flight:					
	a	What was the mission scenario and aircraft configuration				
	b	List any discrepancies noted during walk around				
	c	HUD/AVTR available				
	d	CSFDR installed (check one)		YES		NO
	e	List any anomalies during taxi or EOR checks				
	f	Was it the aircraft's 1st/2nd/3rd flight of the day				
3	Circumstances Prior to					
	a	Describe takeoff performance (normal, engine slow to respond, slow aircraft accel, vibration etc.)				

	b	List any abnormalities noted during flight prior to the event (unusual)	
	c	List any caution/warnings that illuminated	
	d	What maneuvers were being performed prior to the event?	
	e	If test page was called up, list any MFLs, PFLs present prior to	
	f	Document weather condition at time/location of event to include temperature dew point	
4	Circumstances at Event:		
	a	Describe the first indication of malfunction (deceleration, RPM, fluctuations, caution or warning light, engine noise)	
	b	What was the throttle position or RPM at the time of the event	
	c	List any other switches or controls being manipulated immediately prior to event	
	d	What maneuvers were being performed prior to the event?	
	e	Was ENG CONT switch in PRI/SEC when the event occurred	
	f	List any caution/warning lights that illuminated after event	
	g	List any cockpit pressure problems at any time (loss of pressurization, Environmental control system (ESC) noises, smoke/mist in cockpit, cockpit temperature change)	

	h	List any unusual cabin environment problems, other than loss of pressurization, ECS noises, smoke/mist in cockpit, cockpit temperature change	
	i	Was a pilot data save initiated?	
	j	List the following indications at the time of the event:	
1 MACH			
2 ALTITUDE			
3 AOA			
4 YAW			
5 RPM			
6 FTIT			
7 G METER			
8 WEATHER			
9 NOZ POS			
10 OIL PRESSURE			
5	Circumstances After Event		
	a	If any, list MFLs, PFLs displayed after event	
	b	What problems (if any) were noted with engine during return to base?	
	c	What problems (if any) were noted during post flight walk around?	
Note: This Engine Debrief Checklist does not supersede or take place of any and all Technical Orders (TOs). Please review and follow all TO procedures for follow-on maintenance actions and procedures.			

Attachment 33 (Added)

56 MXG AF FORM 2407 ROUTING/APPROVAL PROCESS

A33.1. (Added) AF Form 2407 56 MXG ROUTING/APPROVAL PROCESS.

A33.1.1. An AF Form 2407 will be used to validate approval and to ensure all affected parties are notified of the new, revised schedule. The AF 2407 Routing Matrix will be used to route all changes to the printed weekly schedule. In addition to routing the AF Form 2407 to all affected agencies (e-mail routing authorized), the activity requesting the change will receive approval from the MXG & OG CC for the following changes: Adding/deleting sorties and/or extending the flying window.

Table A33.1. AF Form 2407 Routing Matrix.

	Pen & Ink Changes (see note)	2407 Changes during week of execution					
Notification	All reasons	Replace aircraft	Add/delete line/sortie	Extend fly window	Change T/O or land times within fly window	Change to munitions requirement	Configuration change
PS&D	Coord	Coord	Coord	Coord	Coord	Coord	Coord
FS OPS	Coord	Coord	Coord	Coord	Coord	Coord	Coord
AMU Production Superintendent	Coord	Coord	Coord	Coord	Coord	Coord	Coord
AMU	Coord	Coord	Coord	Coord	Coord	Coord	Coord
FS/DO or TOP3	Coord	Appr	Coord	Coord	Appr	Appr	Appr
AMXS/MXA	Coord	Appr	Coord	Coord	Appr	Appr	Appr
CMS Production Superintendent	Info	Info	Info	Info	Info	Info	Info
EMS Production Superintendent	Info	Info	Info	Info	Info	Info	Info
EMS AMMO	Info	Info	Info	Info	Info	Coord	Info
MXG/CC/CD	Appr	Info	Appr	Appr	Info	Info*	Info
OG/CC/CD	Appr	Info	Appr	Appr	Info	Info*	Info
EMS Transient	Info	Info	Info	Info	Info	Info	Info
MXO/MOC	Info	Info	Info	Info	Info	Info	Info
MXO/Analysis	Info	Info	Info	Info	Info	Info	Info
EOR	Info	Info	Info	Info	Info	Info	Info

*__Note__: 21st Fighter Squadron AF Form 2407 56 MXG Routing/Approval Process is published in 21FS Contractor Regulation 21-XXX in accordance with AFI 21-101, AETC Supplement, paragraphs 1.9.3. and 14.5.6.3.8.1.1.

***Requesting unit will notify MXG/CC and OG/CC or CD of all live munitions request prior to submitting request to EMS AMMO. *Note:** 21FS Program Manager will be notified for 21FS aircraft as per paragraph A35.1.

Attachment 34 (Added)

56 MXG CAT 1 AR SUBMISSION E-MAIL TEMPLATE

A34.1. E-Mail Template.

A34.1.1. The template for forwarding AR information through the local coordination process via email is provided in **Table A32.1** The following information is mandatory: Confirmation of coordination, AR detail, Aircraft tail number, AR severity (CAT 1 High, Med or Low), LCN System, AR number, BLUF (summary of what is being asked), maintenance actions conducted thus far, and technical request from LST (what response is requested).

Table A34.1. CAT 1 AR Submission E-Mail Template (Example).

Coord: This AR has been coordinated/approved by (confirmation of coordination…PML, Sq Supervision, etc.) **AR details for 11-5043/AF54:** **Acft: 11-5043/AF54** **AR Severity: CAT I Low** **LCN System: CNI System** **AR#: S025UNQT04-1-25040861** **BLUF: Avionics have been troubleshooting the IFFT system for not transmitting. They are at a point where they would like further troubleshooting guidance to know which way to progress trying to resolve this problem.** **MX conducted the following actions: Show what was accomplished** **Technical request from LST: Analyze PHM data and actions taken to this point to provide further troubleshooting guidance.**

Attachment 35 (Added)

F-16 PHYSIOLOGICAL INCIDENT CHECKLIST

A35.1. Purpose:

A35.1.1. This checklist assists fighter squadrons with physiological incidents. Presently, 1F-16 A/C/CG/CJ-6 contains no guidance on physiological incidents. The applicable system TOs will be used to accomplish required checks, troubleshooting, and repairs.

A35.2. Aircraft Maintenance Unit (AMU) Actions:

A35.2.1. Perform pilot/crew member interview (see **paragraph A35.4** of this checklist) as soon as possible.

A35.2.2. Based on the results of the pilot/crew member interview, Impoundment Authority (IA) will determine whether to impound the aircraft or not. (C/W) (N/C/W) Circle one.

A35.2.3. Ensure the Liquid Oxygen (LOX) cart that serviced the aircraft is immediately routed to the LOX plant for contamination assessment. (C/W) (N/C/W) Circle one.

A35.2.4. Based on the results from the Lox plant assessment, IA will determine whether to impound the LOX cart that serviced the aircraft or not. (C/W) (N/C/W) Circle one.

A35.2.5. Include this completed checklist with all impound documentation for QA and Maintenance Group commander review.

A35.3. Lox Plant Actions:

A35.3.1. Immediately assess the impounded LOX cart for contamination. (C/W) (N/C/W) Circle one.

A35.3.2. Was the LOX cart contaminated? (YES) (NO) Circle one. If NO, notify the fighter squadron Production Superintendent, clear the AFTO Form 244 entry, and release the LOX cart for use on the flightline. If YES, determine how many aircraft were contaminated and immediately notify MOC and the squadron Production Superintendent for grounding of affected aircraft.

A35.4. Pilot/Crew member Interview:

A35.4.1. Were there any unusual smells or odors from oxygen system and/or crew station? (YES) (NO) Circle one.

A35.4.2. Was there an anti-g system problem? (YES) (NO) Circle one.

A35.4.3. Was there a cabin pressure problem? (YES) (NO) Circle one.

A35.4.4. Was there a problem with the oxygen system? (YES) (NO) Circle one.

A35.4.5. Was there an airflow problem? (YES) (NO) Circle one.

A35.4.6. Were the oxygen regulator switches positioned incorrectly? (YES) (NO) Circle one.

A35.5. Inspections and Checks:

A35.5.1. Utilizing interview results operationally check and troubleshoot the affected systems in accordance with applicable TOs, make repairs as required.

A35.5.1.1. Cabin pressure check (21JG-00-1). (C/W) (N/C/W) Circle one.

A35.5.1.2. 180-day oxygen regulator check (35JG-00-1). (C/W) (N/C/W) Circle one.

A35.5.1.3. Anti-G valve functional check (21JG-00-1). (C/W) (N/C/W) Circle one.

A35.5.1.4. Inspection of crew station for contamination (such as fuel, oil, etc.). (C/W)(N/C/W) Circle one.

A35.5.1.5. Perform a LOX converter and tubing purge (35JG-00-1). (C/W) (N/C/W) Circle one.

A35.5.1.6. Operate the ECS system utilizing external bleed air and check for abnormal odors. (C/W) (N/C/W) Circle one.

A35.5.7. Perform an engine maintenance run. Check for abnormal odors. (C/W) (N/C/W) Circle one.

Attachment 36 (Added)

F-35 PHYSIOLOGICAL INCIDENT CHECKLIST

A36.1. Purpose:

A36.1.1. This checklist assists fighter squadrons with physiological incidents. Presently, ALIS contains no guidance on physiological incidents. The applicable system JTD will be used to accomplish required checks, troubleshooting, and repairs.

A36.2. Aircraft Maintenance Unit (AMU) Actions:

A36.2.1. Perform pilot/crew member interview (see **paragraph A36.4** of this checklist) as soon as possible.

A36.2.2. Based on the results of the pilot/crew member interview, Impoundment Authority (IA) will determine whether to impound the aircraft or not. (C/W) (N/C/W) Circle one.

A36.2.3. Ensure the Gas Oxygen (GOX) cart that serviced the aircraft is immediately routed to the LOX plant for contamination assessment. (C/W) (N/C/W) Circle one.

A36.2.4. Based on the results from the Lox plant assessment, IA will determine whether to impound the LOX cart that serviced the aircraft or not. (C/W) (N/C/W) Circle one.

A36.2.5. Include this completed checklist with all impound documentation for QA and Maintenance Group Commander review.

A36.3. Lox Plant Actions:

A36.3.1. Immediately assess the impounded LOX cart for contamination. (C/W) (N/C/W) Circle one.

A36.3.2. Was the LOX cart contaminated? (YES) (NO) Circle one. If NO, notify the fighter squadron Production Superintendent, clear the AFTO Form 244 entry, and release the LOX cart for use on the flightline. If YES, determine how many aircraft were contaminated and immediately notify MOC and the squadron Production Superintendent for grounding of affected aircraft.

A36.4. Pilot/Crew member Interview:

A36.4.1. Were there any unusual smells or odors from oxygen system and/or crew station? (YES) (NO) Circle one.

A36.4.2. Was there an anti-g system problem? (YES) (NO) Circle one.

A36.4.3. Was there a cabin pressure problem? (YES) (NO) Circle one.

A36.4.4. Was there a problem with the oxygen system? (YES) (NO) Circle one.

A36.4.5. Was there an airflow problem? (YES) (NO) Circle one.

A36.4.6. Were the oxygen regulator switches positioned incorrectly? (YES) (NO) Circle one.

A36.5. Inspections and Checks:

A36.5.1. Utilizing interview results operationally check and troubleshoot the affected systems in accordance with applicable TOs, make repairs as required.

A36.5.1.1. Cabin pressure check (F35-AAA-A2100001000-340B-A). (C/W) (N/C/W) Circle one.

A36.5.1.2. Life Support Operational Check (F35-AAA-A3500001000-320A-A) (C/W) (N/C/W) Circle one.

A36.5.1.3. Lower G Garment Functional Check (F35-FAA-F954102000-340A-B) (C/W) (N/C/W) Circle one. .

A36.5.4. Inspection of crew station for contamination (such as fuel, oil, etc.). (C/W)(N/C/W.) Circle one.

A36.5.5. Operate the ECS system utilizing external bleed air and check for abnormal odors. (C/W) (N/C/W) Circle one.

A36.5.6. Perform an engine maintenance run. Check for abnormal odors. (C/W) (N/C/W) Circle one.

Attachment 37 (Added)

INTAKE MAINTENANCE CHECKLIST

Table A37.1. 56 FW F-16 Sheet Metal Intake Maintenance Checklist.

ALL PURPOSE CHECKLIST	PAGE	OF	PAGES
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA 56 FW F-16 SHEET METAL INTAKE MAINTENANCE CHECKLIST	OPR 56 MXG QA	DATE	

NO.	ITEM (Assign a paragraph number to each item. Draw a horizontal line between each major paragraph.)	C/W	NOT REQ.	N/A
	THIS CHECKLIST WILL BE COMPLETED IN SEQUENCE ANY TIME ASM MAINTENANCE IS PERFORMED IN OR AROUND THE AIRCRAFT INTAKE.	☐	☐	☐
1.	Aircraft S/N: _____ Aircraft MDS:_____	☐	☐	☐
2.	Squadron Aircraft assigned: _____	☐	☐	☐
3.	Type of repair performed: _____	☐	☐	☐
4.	Technicians performing maintenance (a minimum of two technicians will be dispatched):	☐	☐	☐
	(a) Technician 1:_____Rank: _____ Man #_____ Initials____	☐	☐	☐
	(b) Technician 2:_____Rank: _____ Man #_____ Initials____	☐	☐	☐
5.	All intake maintenance will be placed on a Red X in the Aircraft forms prior to job start. A follow-up intake inspection will also be placed on a Red X in the Aircraft forms prior to job start. Initials: _____	☐	☐	☐
6.	Technician (a) entering intake will remove all personal items and suit up. IAW LAFBI 21-101, para. 11.8.3.6.4.1 & AFI 21-101 para. 11.8.3.5. Initials:_____	☐	☐	☐
7.	Technician (a) will seal the engine inlet from the work area using barrier paper/plastic and tape. Ensure no gaps exist between engine inlet work area. Place a Red X in the applicable Aircraft forms upon completion of the step. IAW LAFBI 21-101 11.8.11. Initials:_____	☐	☐	☐
8.	Test rivet gun by installing a duplicate rivet into surfaces of similar composition and the same as the intake mating surfaces requiring rivet installation. Check the test rivet for security, ensure the shank is properly pulled, and the gun is properly preset. Initials:_____	☐	☐	☐
9.	If possible, have NDI check for damaged ribs, stiffeners ect. prior to start of maintenance.	☐	☐	☐
10.	Technician (b) is responsible for proper tool/hardware accountability throughout the maintenance task. Ensure only necessary tools/hardware are in the intake to perform the task.	☐	☐	☐
11.	Technician (a) prior to rivet installation, will ensure holes are of proper size, shape, and free of burrs. Initials:_____	☐	☐	☐
12.	Technician (b) will ensure rivets are passed one at a time and traded on a one (stem) for one (rivet) basis. Repeat this process until all rivets are properly installed. Account for each rivet used and each shank removed. Initials:_____	☐	☐	☐
13.	Technician (a) and (b) ensure all tools/hardware are accounted for at job completion. Police area for any shavings, etc. Initials:_____	☐	☐	☐
14.	Technician (a) remove all barrier paper/plastic and tape from engine inlet at job completion. Initials:_____	☐	☐	☐
15.	NCOIC will retain completed checklist for a minimum of 90 days.	☐	☐	☐

AF IMT 2519, 19911101 V5 PREVIOUS EDITIONS ARE OBSOLETE.

Table A37.2. 56 FW F-35 Low Observable Intake Maintenance Checklist.

ALL PURPOSE CHECKLIST	PAGE 1 OF 1 PAGES		
TITLE/SUBJECT/ACTIVITY/FUNCTIONAL AREA 56 FW F-35 Low Observable Intake Maintenance Checklist	OPR 56 MXG/QA	DATE	
NO. ITEM *(Assign a paragraph number to each item. Draw a horizontal line between each major paragraph.)*		C/W	N/A
THIS CHECKLIST WILL BE COMPLETED IN SEQUENCE ANY TIME LOASM MAINTENANCE IS PERFORMED IN OR AROUND THE AIRCRAFT INTAKE.		☐	☐
1. Aircraft S/N:_____ Aircraft MDS:_____		☐	☐
2. Squadron Aircraft Assigned:_____		☐	☐
3. Type of Repair Being performed:_____		☐	☐
4. A Minimum of Two Technicians Will Be Dispatched: (a) Name:_____ Initials:_____ (b) Name:_____ Initials:_____		☐	☐
5. All intake maintenance will be placed on a Red X in CMMS prior to job start. A follow up intake inspection will also be placed on a Red X in CMMS prior to start. Initials:_____		☐	☐
6. Technician (a) entering intake will remove all personal items and suit up as required IAW LAFBI 21-101, para. 11.8.3.6.4.1 & AFI 21-101 para. 11.8.3.5. Initials:_____		☐	☐
7. Technician (a) will seal the engine inlet from the Work area using barrier paper/plastic and tape. Ensure no gaps exist between engine inlet work area. Place a Red X in the applicable A/C forms upon completion of the step. IAW LAFBI 21-101 11.8.11 Initials:_____		☐	☐
8. Technician (b) is responsible for tools/hardware accountability throughout the maintenance task. Ensure only necessary items are inside the intake for the steps being performed.		☐	☐
9. Technician (a) and (b) will ensure all tools/hardware are accounted for at job completion. Ensure all maintenance F.O. is cleaned out. Initials (a):_____ Initials (b):_____		☐	☐
10. Technician (a) will remove barrier materials and tape from engine inlet. Initials:_____		☐	☐
11. NCOIC will retain a completed checklist for a minimum of 90 days.		☐	☐

AF IMT 2519, 19911101 V5 PREVIOUS EDITIONS ARE OBSOLETE.

Attachment 38 (Added)

F-16 MAJCOM AND WING (WG) PATCHES

A38.1. Command Insignia.

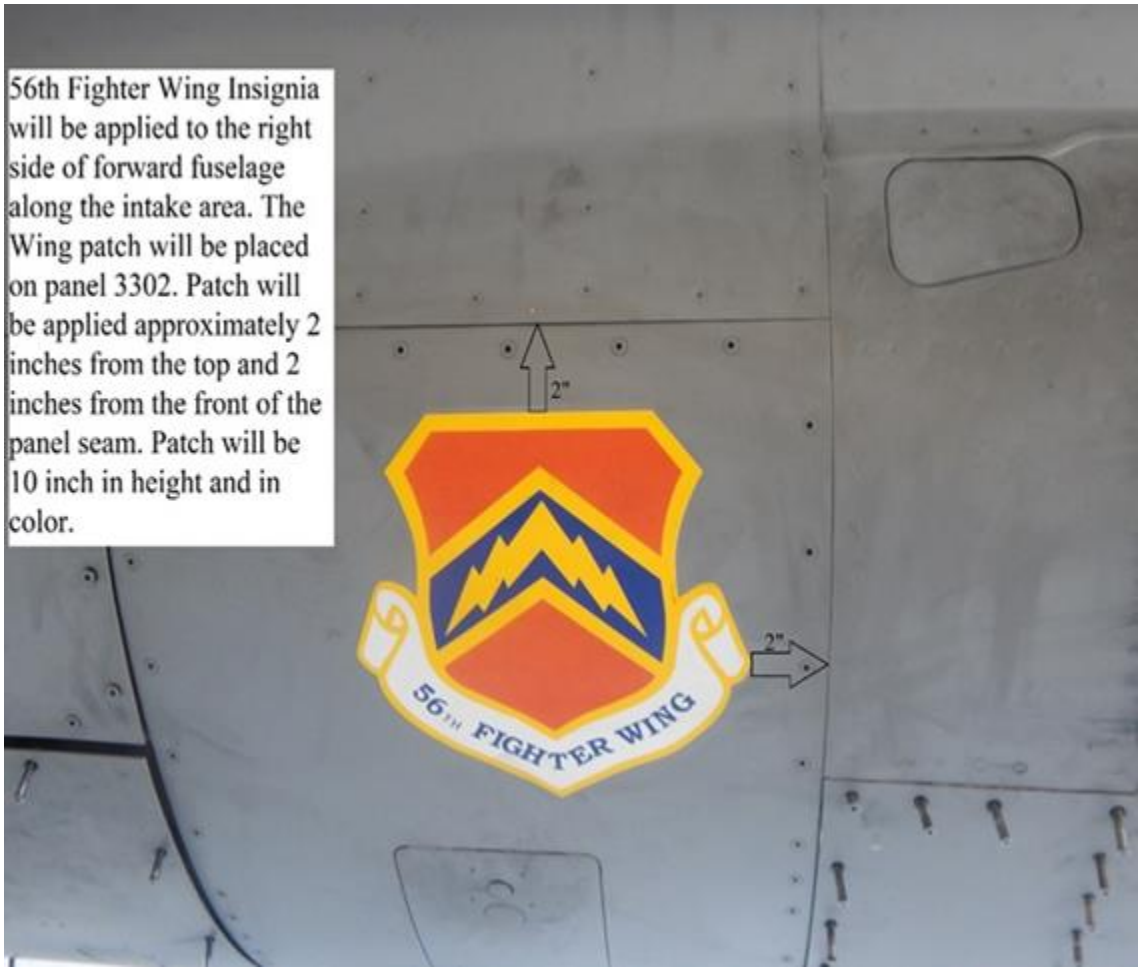
A38.1.1. Command Insignia will be applied onto both sides of the vertical stabilizer, properly center between the leading edge and trailing edge of the vertical stabilizer. The patch will be 18 inches in height, will be in color and located evenly with the tops of panel 4459 and 4469.

Figure A38.1. AETC Patch.

A38.2. 56th Fighter Wing.

A38.2.1. 56th Fighter Wing Insignia will be applied to the right side of forward fuselage along the intake area. The Wing patch will be placed on panel 3302. Patch will be applied approximately 2 inches from the top and 2 inches from the front of the panel seam. Patch will be 10 inch in height and in color.

Figure A38.2. WG Patch.



Attachment 39 (Added)

F-16 SQUADRON PATCHES AND TAIL FLASHES

A39.1. Unit Insignia.

A39.1.1. Unit Insignias will be applied to the left side of forward fuselage along the intake area. The squadron patch will be placed on panel 3301. They will be applied approximately 2 inches from the top and 2 inches from the front of the panel seam. Patches will be 10 inch in height and in color.

Figure A39.1. 309th Fighter Squadron Patch.

Figure A39.2. 310th Fighter Squadron Patch.

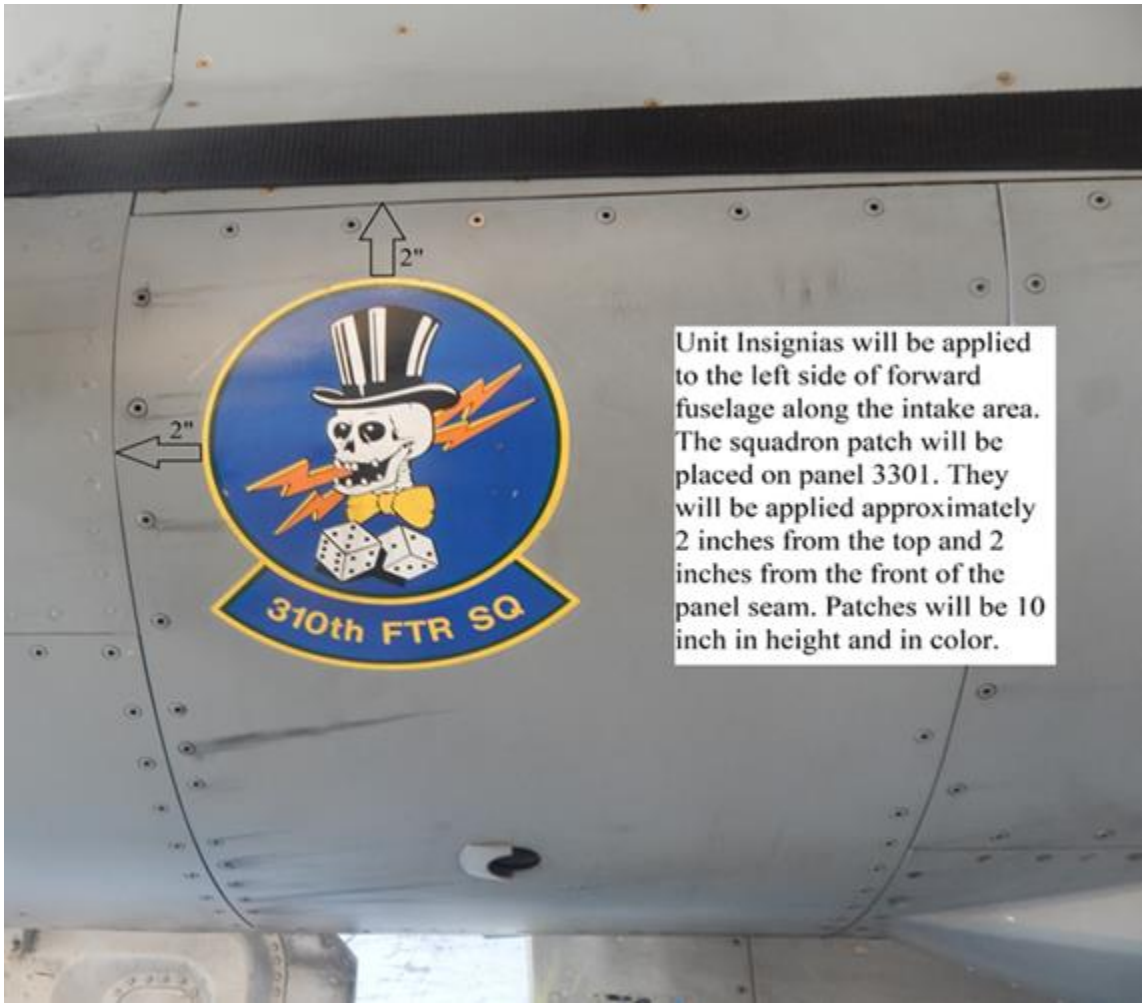


Figure A39.3. 309th Fighter Squadron Tail Flash.

Figure A39.4. 310th Fighter Squadron Tail Flash.

Attachment 40 (Added)

LUKE AFB PAINT DATA PLACARD

Figure A40.1. 56 FW PROUD FALCON (Stencil).

STRIP/REPAINT Date 56 EMS
SCUFF/OVERCOAT Date AIRCRAFT
PRIMER MIL-P-23377 STRUCTURAL
TOPCOAT MIL-PRF-85285 MAINTENANCE

Table A40.1. Paint Facility/Finish Identification Block (TO 1-1-8 para 8.2.7).

The name of the activity, plus the Commercial and Government Entity (CAGE) code
- Date of completion (DD, MMM, YY)
- Identification by specification of all coatings used
- For non-standard or unique coatings, such as Advance Performance Coating (APC)/Extended Life
- Topcoat (Extended Life Topcoat [ELT]), add manufacture product code and CAGE code

Attachment 41 (Added)

F-35 MAJCOM SUBDUED PATCHES

A41.1. Command Insignia.

A41.1. Command Insignia. Overall height is 12 inches (apply in light gray meeting color code #36375); bottom of the insignia will be centered 47 inches above the bottom edge the blackboard and centered fore to aft in the vertical stabilizer blackboard area.

Figure A41.1. AETC Subdued MAJCOM Patch.

Attachment 42 (Added)

F-35 ORGANIZATIONAL INSIGNIA

A42.1. Organizational Insignia.

A42.1.1. Organizational Insignia. Overall height is 12 inches (apply in light gray meeting color code #36375); insignia will be centered within the blackboard area on the left and right side inlets below the chine and formation light.

Figure A42.1. 56th Fighter Wing Patch.

Figure A42.2. 61st Fighter Squadron Patch.

Figure A42.3. 62nd Fighter Squadron Patch.

Figure A42.4. 63rd Fighter Squadron Patch.

Figure A42.5. 308th Fighter Squadron Patch.