BY ORDER OF THE COMMANDER
22D AIR REFUELING WING (AMC)

AIR FORCE INSTRUCTION

21-101

AIR MOBILITY COMMAND
Supplement

MCCONNELL AIR FORCE BASE

Supplement

30 SEPTEMBER 2025

Maintenance

AIRCRAFT AND EQUIPMENT
MAINTENANCE MANAGEMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 22 MXG/MXQ

Certified by: 22 MXG/CC
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Supersedes: MAFI21-101_AMCSUP_MCCONNELLSUP, 24 January 2021

Pages: 54

This supplement implements and extends the guidance of Air Force Instruction (DAFI) 21-101_AMC_SUP_I, *Aircraft and Equipment Maintenance Management*, 14 July 2024. It applies to all military, civilian, and tenant and associated unit personnel assigned to the 22d Maintenance Group (MXG) and 931st Maintenance Group (MXG), except where otherwise noted. This AFI may be supplemented at any level, but all supplements must be routed to Office of Primary Responsibility (OPR) for coordination prior to certification and approval. Refer recommended changes and questions about this publication to the OPR using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through appropriate functional's chain of command. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-322, *Management of Records*, and disposed of in accordance with (IAW) Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **afrims.cce.af.mil**

SUMMARY OF CHANGES

This publication has been substantially revised and must be completely reviewed in its entirety.

2.4.3.15.1. **(Added)** Repeat/Recur, and CND Discrepancy Procedures.

2.4.3.15.1.1. **(Added)** Repeat/Recurs responsibilities/procedures:

2.4.3.15.1.2. **(Added)** AMXS debrief will:

2.4.3.15.1.3. **(Added)** Annotate “Repeat/Recur” in the applicable DISCREPANCY block of the 781A.

2.4.3.15.1.4. **(Added)** Make entries in FMxC2 as appropriate.

2.4.3.15.1.5. **(Added)** Contact the affected Production Superintendent to ensure appropriate specialist representation at debrief. This critical step will ensure that the technician will obtain accurate, detailed information from the aircrew and is vital to the fault isolation process.

2.4.3.15.1.6. **(Added)** A systems-qualified technician will:

2.4.3.15.1.7. **(Added)** Review previous troubleshooting/corrective actions and make necessary repairs and documentation.

2.4.3.15.1.8. **(Added)** If discrepancy is NOT a "Red X", enter the "corrective action" and sign the "corrected by" block in the aircraft forms.

2.4.3.15.1.9. **(Added)** A 7-level technician and higher, or civilian equivalent will re-verify all troubleshooting procedures, inspect any previous corrective actions, the latest corrective action, and sign the "Inspected By" block in the aircraft forms. This step is performed regardless of whether the symbol is a "Red X" or "Red /" and ensures that a thorough follow-up has been performed.

2.4.3.15.2. **(Added)** Cannot Duplicate.

2.4.3.15.2.1. **(Added)** The discrepancy may be cleared only after thorough troubleshooting has been accomplished. CND discrepancies will be cleared in the following manner:

2.4.3.15.2.2. **(Added)** The technician will ensure an "Action Taken" code H and How Mal Code of 799 are entered in FMxC2 for all CND discrepancies.

2.4.3.15.2.3. **(Added)** A 7-level technician and higher, or civilian equivalent personnel and/or qualified Production Superintendent (authorized by AFSC or All Systems Red X) will sign the "Inspected By" block of a CND discrepancy.

2.4.3.45. **(Added)** MXG Leadership Oversight.

2.4.3.45.1. **(Added)** The Root Cause Analysis (RCA) process will be managed by Squadron leadership, utilizing the RCA survey process published on the QA SharePoint for data storage.

2.4.3.45.1.1. **(Added)** Root Cause Analysis surveys will be used by the Squadron leadership for collecting data, documenting corrective action plans to include a get well date.

2.4.3.45.1.2. **(Added)** QA will use Root Cause Analysis survey data to determine trends in the MSEP.

2.4.53.1.1. **(Added)** Production Superintendents will ensure aircraft, equipment forms, and MIS are reviewed each shift and that all aircraft/equipment reflect the correct status IAW TO 00-20-1, TO 00-20-2, DAFI 21-101, and DAFI 21-103.

2.4.53.2.1. **(Added) Before outside teams leave** Quality Assurance will perform a thorough review of aircraft forms, equipment forms, and MIS on all extensive maintenance events and/or Depot Field Team maintenance actions to ensure proper documentation prior to the team's departure. The review will be documented in the aircraft forms, equipment forms, and MIS.

2.9.10.1.1. **(Added)** Ensure appointed avionics maintainers for the KC-46 have SIPR access and SIPR Burn Rights to ensure compliance with DAFMAN 10-703, *Electronic Warfare Integrated Reprogramming*.

2.9.12.1. **(Added)** Ensure squadron appointed KC-46 AIP Monitors provide data collection feedback and support to the MXG ASIP Monitor IAW Chapter 11.

2.12.29. **(Added)** Ensure avionics work centers maintains an appropriate number of COMSEC Responsibility Officers (CRO) appointed IAW AFMAN 17-1302-O, *Communications Security (COMSEC) Operations,* to prevent lapse in maintenance operations at home station and contingency/deployed locations.

3.6.12. **(Added)** Coordinate all engine runs with the Production Superintendent and notify the MOC with the following:

3.6.12.1. **(Added)** Location of the aircraft to be run.

3.6.12.2. **(Added)** The reason for the run.

3.6.12.3. **(Added)** Employee number of engine run supervisor.

3.6.12.4. **(Added)** Aircraft tail number and MDS.

3.6.12.5. **(Added)** Idle or power run.

3.7.15. **(Added)** Maintenance Debrief section LAO/VLAO responsibilities.

3.7.15.1. **(Added)** Ensure the aircraft commander annotates the aircraft AFTO Form 781 IAW T.O. 1C-135(K)R(II)-1 Inflight Data, Section V, page 5-12B and documents a pilot reported discrepancy in the AFTO Form 781A (Red Diagonal "/") anytime LAO or VLAO are conducted. The discrepancy will include: LAO or VLAO, aircraft configuration (gear & flap positions) and duration in the LAO/VLAO environment.

3.7.15.2. **(Added)** During post-flight debriefing, AMXS will enter a Red Dash "–" ground-found discrepancy stating, "Post LAO or VLAO 1C-135-6 inspections required" in the next available AFTO Form 781A discrepancy block upon accumulation of LAO or VLAO inspection hour criteria.

3.9.5.3. **(Added)** Temporarily store squibs IAW local instructions.

3.9.5.3.1. **(Added)** For all squib CHANGES/CANN's, turn in a new verification form to PS&D within 3 duty days of the MX ACTION.

3.9.5.3.2. **(Added)** When issued squibs in mass issue for the week's scheduled MX, positively track the issued squibs so that they are utilized on the aircraft designee through the use of individual tags or marking the Lot # and ACFT Tail # on the transfer/storage container.

4.4.2.8. **(Added)** MUNS personnel will:

4.4.2.8.1. **(Added)** Not release squibs to AMXS personnel without first receiving a request form from PS&D. This applies to both scheduled and unscheduled squib changes.

4.4.2.8.2. **(Added)** Provides PS&D with the AM 517 form upon issue of squibs to 22 AMXS or 22 MXS personnel. This form will be used by PS&D for verifying accurate documentation of the squib verification sheet.

5.2.4.12. **(Added)** The 22/931 MOC is responsible for publishing local radio call signs for maintenance LMR networks and ensures it is current (**Attachment 12**).

5.2.5.1.15.2. **(Added)** The MOC will run the appropriate Engine Run checklist:

5.2.5.1.15.3. **(Added)** Obtain clearance with Command Post, Tower, Security Forces, and Airfield Management (if applicable) for all engine runs.

5.2.5.1.15.4. **(Added)** Call the Fire Department (15 minutes prior to start up) for coverage on all engine runs requiring the Fire Department IAW with local checklist and T.O.'s

5.2.5.1.15.5. **(Added)** Notify Transient Alert of all engine runs that may affect their parking area.

5.2.5.2.1. **(Added)** The MOC NCOIC/Superintendent will:

5.2.5.2.2. **(Added)** Designate a net manager for maintenance talk groups and manage the aircraft maintenance non-tactical radio program for the maintenance group.

5.2.5.2.3. **(Added)** Coordinate the assignment of radio sets for assigned organizations and direct users to change nets in the event of disruptive technical problems or increased/reduced radio call traffic.

5.2.8.1.12.1. **(Added)** Job Control Listing.

5.2.8.1.12.2. **(Added)** Analysis will assign a sufficient amount of JCN to each section (**Attachment 2**).

5.2.8.1.12.3. **(Added)** In the event FMxC2 is down, the MOC will maintain a manual documentation log of all events. As soon as FMxC2 becomes operational, the MOC will enter discrepancies using the documentation log as a source document. MOC will then inform the work center that the discrepancies have been entered into FMxC2. The work center that performed the maintenance will immediately clear the discrepancies.

5.2.8.1.12.4. **(Added)** Off-shore Support JCNs are used when a part is needed from home station for an aircraft broken at a non-FMxC2 location. This JCN would be loaded by the home station MOC against the broke/off-station aircraft.

6.3.10.1. **(Added)** Local IPIs will be maintained in the back of each aircraft forms binder IAW the master forms binder layout and IAW **Chapter 6** of this instruction.

6.10.11. **(Added)** Prior to creation and assignment of an ETIMS sub account by the 22 MXG TODO, IAW TO 00-5-1, a primary and alternate TODA and applicable Library Custodian personnel will be appointed by their corresponding squadron commander within five working days after affected changes are made.

6.10.12. **(Added)** Maintain TODA locations and account representatives in ETIMS Program and the TODO program continuity book located in the 22 MXG/TODO office.

6.10.13. **(Added)** TODA and Library Custodians will:

6.10.14. **(Added)** Forward requirements for additional technical orders with T.O. description and justification to the 22 MXG TODO via e-mail.

6.10.15. **(Added)** Verify CPINS software received by TODO is the requested/updated version and will replace the obsolete software. All replaced software will be returned to the TODO for disposal.

6.10.16. **(Added)** LWC/LCL/LPS Procedures.

6.10.17. **(Added)** The 22 MXG TODO will:

6.10.18. **(Added)** Maintain a copy of the LWC/LCL/LPS (22 MXG/CC's original signature) along with background information and coordination documentation.

6.10.19. **(Added)** Once approved by the Group Commander, reproduce and distribute LWC/LCL/LPS to affected agencies.

6.10.20. **(Added)** Maintain LWC/LCL/LPS in ETIMS program and inform TODA's of any rescinded LWC/LCL/LPS.

6.10.21. **(Added)** Ensure all LWC/LCL/LPS biennial validations are accomplished by the end of the calendar month from when they were signed by the 22 MXG/CC. If validation is not accomplished, the LWC/LCL/LPS will be removed from ETIMS and will not be utilized until it is corrected.

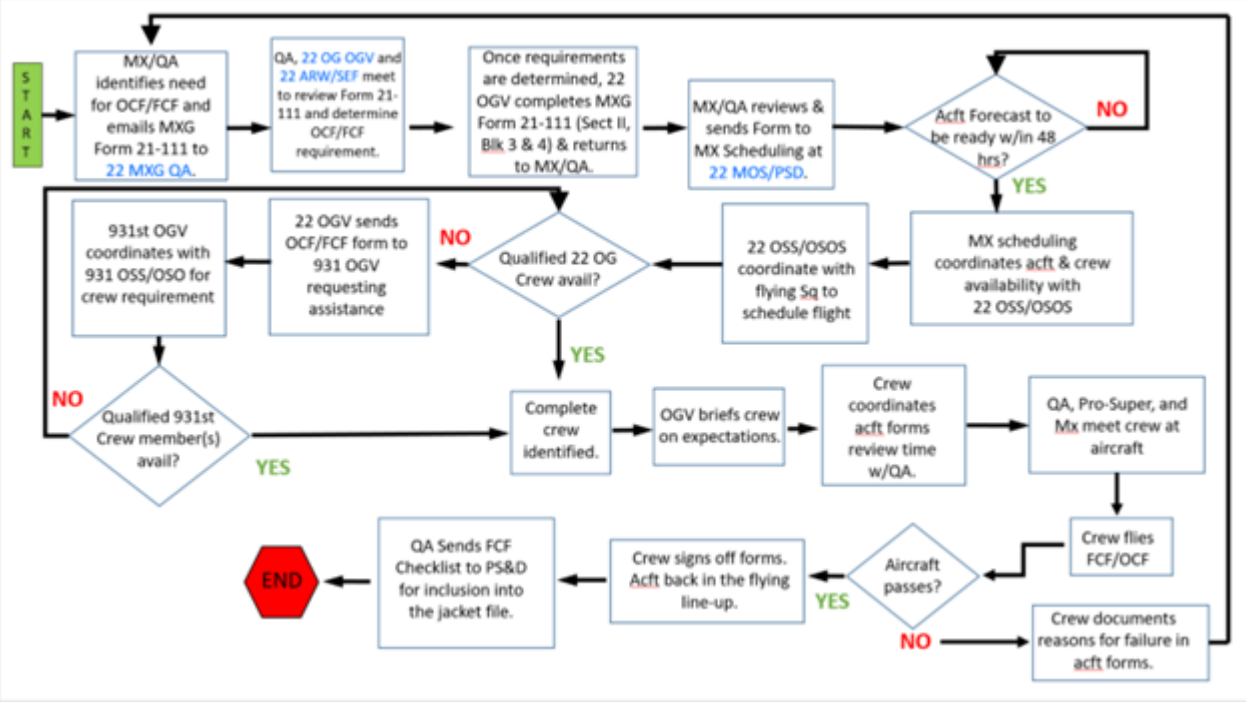
6.12.2.1.1.1. **(Added)** The MXG/CC and Operations Group Commander (OG/CC) have joint responsibility for the FCF/OCF program. The decision to fly a full profile FCF/OCF will be at the discretion of the MXG/CC and OG/CC (or designated equivalent). It is the responsibility of all maintenance and operations personnel to ensure a safe and effective FCF, OCF, CF and HST check program. MXG Quality Assurance (QA) is the maintenance focal point for all FCF, OCF, CF and HST check matters. The OG/OGV will be the operations focal point.

6.12.2.1.1.2. **(Added)** OCF/FCFs will be accomplished IAW AFI11-2KC-135v3, MAFB SUP or AFMAN11-2KC-46v3. OCF and FCF sorties will be added to the schedule once a 22/931 OG/OGV-approved crew has been identified and available. OCF/FCF sorties will be in addition to scheduled local training missions.

6.12.2.1.1.3. **(Added)** The applicable Lead Production Superintendent from the Aircraft Maintenance Squadron (722 AMXS, 22 AMXS, 931 AMXS) or Maintenance Squadron (22 MXS, 931 MXS) will evaluate all aircraft undergoing isochronal inspection, cannibalization, or any unusual occurrence/aircraft discrepancy for an FCF, OCF, CF or HST check. If identified, initiate the 22 MXG Form 21-111 (**Attachment 8**) and send to Quality Assurance.

6.12.2.1.1.5. **(Added)** FCF, OCF, and HST will be coordinated as soon as possible IAW **Figure 6.1**.

Figure 6.1. FCF, OCF, CF, and HST MXG Form 21-111 coordination.



7.2.2.1. **(Added)** The 22/931 MXG/CC has overall responsibility for impoundment and release of aircraft and equipment. The 22/931 MXG/CC and 22/931 MXG/CD are the primary impound authorities. The 22/931 MXG/CC appoints and tracks additional impound authorities in writing through the SCR. If the primary impound authorities are not available, contact one of the remaining certified individuals for impoundment decisions.

7.2.2.1.1. **(Added)** The impound release authority will release the aircraft or equipment from impoundment when the investigation, repairs, and appropriate checks are completed. Note: The release authority will determine if the aircraft or equipment can be released prior to the above requirements.

7.2.3.1. **(Added)** The release authority will ensure concerted efforts have been made to thoroughly assess aircraft condition when considering and authorizing one-time flights, if necessary, IAW TO 00-20-1, instructions and applicable supplements.

7.4.2.1. **(Added)** Ensure full and complete documentation of all entries on 22 MXG Checklist 21-8.

7.6.1.1. **(Added)** Debriefing Section will:

7.6.1.2. **(Added)** Immediately notify the Production Superintendent, MOC, and QA if an aircrew debriefs a malfunction that may require an impoundment per applicable instructions.

7.6.1.3. **(Added)** Suspend further debriefing action on the affected aircraft until applicable system specialists and Production Superintendent have arrived.

7.6.2.1. **(Added)** Inform the MOC and PS&D of the aircraft tail number or equipment identification number, location and reason for impoundment.

7.6.2.2. **(Added)** Report to QA and sign out an Aircraft Impound binder and initiate the 22 MXG Checklist 21-8, *Impoundment Official Checklist*. (Attachment 4).

7.6.2.3. **(Added)** Notify the 22/931 MXG/CC/CD and QA Superintendent or Chief Inspector of any on-station or off-station aircraft impoundments. Include all information such as points of contact, assigned impoundment authority, assigned impoundment official, and proper on-scene point of contact information.

7.6.2.4. **(Added)** For off-station impoundments, MOC will ensure the on-scene point of contact notifies TACC/XOCL, provides investigation status updates for the 22 MXG/CC, and ensures the point of contact has access to applicable instructions and supplements (including updates as applicable).

7.6.2.5. **(Added)** Load pre-printed aircraft impoundment package into FMxC2 and lock/unlock access to aircraft records as directed by the IO.

7.6.2.6. **(Added)** Update aircraft status when required.

7.6.3.2.1. **(Added)** Coordinate with MOC for locking/unlocking aircraft/equipment forms in FMxC2 for required documentation of impoundment related maintenance.

7.6.3.5.1. **(Added)** Ensure a detailed chronological log is maintained to include, but not limited to: All actions, tests and results, work unit codes, part numbers and technical order figure and index, of all components repaired, adjusted, replaced etc., on the affected aircraft/equipment and who performed them.

7.6.5.1.2. **(Added)** To ensure continuity, the IO will determine the work schedule. Two teams may be assigned to provide 24-hour coverage.

7.6.6.1. **(Added)** Present all pertinent current/transcribed forms, aircraft forms binder, and any related maintenance documentation concerning the impoundment through QA prior to meeting with the release official. Complete an impoundment summary memorandum for record for all impoundments (**Attachment 3**).

7.6.7.1. **(Added)** Quality Assurance will:

7.6.7.2. **(Added)** Advise the IO as required throughout the impoundment process, assist the IO in understanding AFI impoundment procedure guidance and assist efforts to obtain technical and/or engineering assistance as required.

7.6.7.2.1. **(Added)** Monitor the investigation to ensure proper procedures are being followed and report impoundment policy violations to the IO and squadron supervision.

7.6.7.2. **(Added)** Review aircraft/equipment forms documentation, corrective actions and impoundment summary memorandum for record (MFR) prior to impoundment release.

7.6.7.3. **(Added)** Maintain completed copies of impoundment checklist, chronological log, summary, and appropriate forms for one year.

7.6.7.4. **(Added)** Notify wing safety office of the status for impounded aircraft and also periodically update them as to the investigation progress as applicable. Once 22/931 MXG/CC or designated release authority, releases impoundment, QA will send a copy of the impoundment summary report to wing safety as applicable.

7.6.8.1. **(Added)** Release of aircraft from impoundment:

7.6.8.1.1. **(Added)** The IO will brief the impoundment release authority on aircraft troubleshooting and corrective actions and recommend one of the following courses of action:

7.6.8.1.1.1. **(Added)** Total release of aircraft for normal flight.

7.6.8.1.1.2. **(Added)** Conditional release of the aircraft, contingent upon a successful operational check flight or taxi check.

7.6.8.1.2. **(Added)** The impoundment release authority will sign off the impoundment once the aircraft/equipment is ready to be released from impoundment. He or she must also sign the Impoundment Summary Report; (**Attachment 3**), for inclusion in the QA Impoundment history.

7.6.8.1.3. **(Added)** The IO will ensure a copy of the signed summary is given to QA for disposition as required.

7.6.8.2. **(Added)** Aircraft impounded at an off-base location, where no impoundment authority exists:

7.6.8.2.1. **(Added)** Maintenance personnel accompanying the aircraft, will complete all provisions covered within this supplement, impoundment and notification procedures specified in DAFI 21-101_AMCSUP (including applicable supplements), and documentation procedures in TO 00-20-1.

7.6.8.2.2. **(Added)** Maintenance personnel must notify TACC/XOCL and home station MOC of any instances of aircraft impoundments. They also must notify the owning 22/931 MXG/CC and home station MOC of any investigation status updates until aircraft is released from impoundment.

7.6.8.2.3. **(Added)** Prior to releasing an aircraft from impoundment, off-station personnel must notify TACC/XOCL and contact the owning 22/931 MXG/CC for release authority procedures.

7.6.8.2.4. **(Added)** The release can be performed via telephone, e-mail or any standard mode of communication for aircraft impounded off-station where no impoundment authority exists. In this instance, the IO will annotate the method of communication used to facilitate release and sign off the impoundment as directed by the release authority.

7.8. **(Added) Aircraft Quarantine.**

7.8.1. **(Added)** Maintenance personnel will notify MOC when evidence of rodents or pests are discovered aboard an aircraft, or when directed for public health concerns.

7.8.2. **(Added)** The MOC will notify the Civil Engineering Squadron service call desk and the 22 MXG/CC or designated representative.

7.8.3. **(Added)** Maintenance personnel will seal the aircraft until the Entomology (Pest Control) technician(s) arrives at the aircraft.

7.8.4. **(Added)** Maintenance personnel will then brief the entomologist of the suspected location of the rodents or pests.

7.8.5. **(Added)** Maintenance personnel will seal the aircraft after traps and tracking patches are in place, and annotate in the aircraft AFTO Form 781A with the number of traps/tracking devices installed and the location.

7.8.6. **(Added)** After the aircraft is determined to be rodent/pest free by Entomology, all traps and tracking patches will be removed by Entomology and the aircraft will be released from quarantine by Entomology.

7.8.7. **(Added)** AMXS will perform a Preflight inspection as well as a flight control check prior to next scheduled flight.

7.8.8. **(Added)** The consolidated jacket file will only be released to QA or the impound official upon request.

8.2.1.1.1. **(Added)** Tools: Hand tools, equipment, and electronic devices used to work on or maintain airfield equipment, facilities, vehicles, or aircraft. For the purpose of this instruction, LMR, laptop/hand-held computers, and PCMCIA cards are considered tools.

8.2.1.1.2. **(Added)** Units using a MAJCOM approved tool accountability system, will be backed up monthly and maintained by the work center supervisor. 22 MXG Form 21-182 MCCONNELLAFB182, *CTK Inventory and Control Log* (Attachment 10), will be used if the MAJCOM approved tool accountability system becomes unavailable or goes offline. AF IMT 1297 and AF IMT 2411 are also authorized for use by personnel or when the MAJCOM approved tool accountability system is not available.

8.2.1.1.3. **(Added)** Inventories and Procedures.

8.2.1.1.4. **(Added)** Units will develop inventories and procedures for effective tool program management.

8.2.1.1.5. **(Added)** A MAJCOM-approved tool accountability system (TCMAX) will be used to document spare tools and consumable tools inventory/consumption. Spare tool lockers will be locked at all times and access to spare tools will be limited to the flight chief and designated representatives.

8.2.3.2. **(Added)** Warranty tool management and the procurement of tools will be limited to a primary and an alternate monitor in each work section. These individuals are responsible for contacting the company, monitoring tool warranties, and are the only personnel authorized to procure tools. In addition, these individuals will be designated in writing with appointment letters maintained on file in the CTK.

8.2.4.1. **(Added)** Replacement and expendable hand tools may not be placed on bench stock (i.e. razor blades, drill bits, hacksaw blades, wire brushes, rotary files, etc.).

8.2.5.1.1. **(Added)** When mission needs dictate, the transfer of flight line CTK/test equipment from one individual to another at the job site, the outgoing and incoming individuals will use the following procedures:

8.2.5.1.2. **(Added)** The outgoing individual will obtain approval for CTK/test equipment transfer from the Production Superintendent, Expediter, or Section chief. The Production Superintendent, Expediter, or Section chief is responsible for verifying this transfer with the CTK custodian.

8.2.5.1.3. **(Added)** The incoming and outgoing individuals will perform an inventory of the CTK/test equipment. The Production Superintendent or Expediter overseeing the exchange will transfer responsibility from the outgoing individual to the incoming individual in the MAJCOM approved tool accountability system with the CTK custodian.

8.2.5.1.4. **(Added)** Aircraft maintenance special equipment (e.g. boom sling or rudder lock) will be accounted for at each shift change. The Production Superintendent, expediter, or shop chief is the approval authority for transferring special equipment already installed on the aircraft or in the process of being installed on the aircraft (e.g. Thermal Curtains) from one individual to the next and is responsible to ensure this transaction occurs successfully. To ensure 100% daily accountability, equipment will not be signed out long-term by any individual going off shift.

8.2.6. **(Added)** Technicians will return all pieces of broken tools, if possible and accomplish MXG FORM 21-18, Lost Tool/Object Report (Attachment 9), if not fully recovered.

8.2.6.1. **(Added)** Lost Tool/Object Investigation Report (**Attachment 9**): This report is used for tracking and trending incidents concerning lost tools and will be filed regardless if the tool/object is recovered. They are completed by the individual losing a tool and are maintained by squadron CTK monitors and 22/931 MXG Quality Assurance (QA). E-mail lost tool reports to 22 MXG QA distribution group.

8.2.6.2. **(Added)** The person identifying the missing tool/item will search the immediate area for the tool/item. If not found after completing the initial 1 hour search, the individual will notify the expediter/ Production Superintendent /section chief or equivalent.

8.2.6.3. **(Added)** The Production Superintendent or shop chief will notify MOC immediately and initiate MCCONNELLAFB Form 18 (Attachment 8)

8.2.6.4. **(Added)** Squadrons will e-mail a complete copy of all lost tool reports within three duty days to the QA office and the owning CTK. QA will assign a lost tool control number. Reports will be maintained on file in QA and the owning CTK for one year.

8.2.6.5. **(Added)** When a tool is discovered missing and the possibility exists that the missing tool is on a taxiing or airborne aircraft, notify MOC immediately for execution of the appropriate checklist actions.

8.2.6.6. **(Added)** When a lost tool is found notify QA immediately for execution of updating lost Tool/Object Report (**Attachment 9**).

8.2.9.4. **(Added)** Rag control applies to all sections and personnel performing on/off-equipment aircraft maintenance, jet engine maintenance, and aerospace ground equipment maintenance. Positive rag control procedures must be adhered to. Rags of uniform size and color will be used to facilitate control. Rags will be controlled as tools and will be issued in pre-packed pouches with the number of rags and CTK number marked on each pouch. CTK custodians will establish procedures to ensure how many rags are on hand (clean, dirty, and those ready for dispatch). Rags will be replaced on an equal share basis (i.e. one-for-one, five-for-five, etc.).

8.2.11. **(Added)** Local Manufacture.

8.2.11.1. **(Added)** QA coordinates on all requests for approval and use of locally designed tools or equipment that carries loads, changes torque or presents potential to damage government resources. The 22 MXG/CC or designated representative will have approval authority. This includes non-standard, non-common tools meeting the above listed criteria procured through the local economy.

8.2.11.2. **(Added)** All requests for locally manufactured tools and equipment will be routed through the owning work center's flight supervision, squadron operations officer/superintendent, and QA to the 22 MXG/CC or designated representative for approval. This procedure does not

apply to tools already authorized in specific technical data. Use MXG FORM 181, *Locally Designed Tool and Equipment Approval Request* (Attachment 6), to submit a request for a locally designed tool or piece of equipment.

8.2.11.3. **(Added)** 22/931 MXG/QA will maintain a locally manufactured tools and equipment file with a picture and copy of approval paperwork for each approved item.

8.2.11.4. **(Added)** All locally manufactured or modified tools and equipment will be maintained IAW this instruction and all other technical data regarding the maintenance management of tools and equipment.

8.2.11.5. **(Added)** Users will review items and requirements annually with QA for applicability and current configuration.

8.2.11.6. **(Added)** Responsibilities and Procedures.

8.2.11.7. **(Added)** Requester:

8.2.11.8. **(Added)** Provides a drawing, sample, technical data, and DD Form 1348-6 as required. Use an AF IMT 2005 for supply item local requests.

8.2.11.9. **(Added)** Loads job control number, identifies discrepancy against aircraft, equipment, if applicable.

8.2.11.10. **(Added)** Coordinates with the appropriate fabrication sections and the supply local manufacture manager to determine bits and pieces required and parts availability.

8.2.11.11. **(Added)** Forwards all documents, drawings, and samples (as required) to the manufacturing elements after approval.

8.2.11.12. **(Added)** Manufacturing Shop Sections:

8.2.11.13. **(Added)** Reviews drawings or samples for required information and ability to accomplish the task.

8.2.11.14. **(Added)** Obtains approval from the 22 MXS Operations Officer, Maintenance Superintendent, or Production Superintendent and completes the material required worksheet.

8.2.11.15. **(Added)** Initials Block 10 of DD Form 1348-6, if approved.

8.2.11.16. **(Added)** Shop chiefs will review local manufacture items annually to determine possible items that can be pre-made to prevent or reduce launch delays.

8.2.11.17. **(Added)** Approval authority:

8.2.11.18. **(Added)** The 22 MXS Operations Officer, Maintenance Superintendent, and Production Superintendent are the approval authority for the manufacture of all source coded local manufacture items requests.

8.2.11.19. **(Added)** Reviews all local manufacture requests with the assistance of manufacturing shop sections and approves or disapproves requests

8.2.12.1. **(Added)** Depot teams, factory representatives, contract field teams, and personnel TDY to McConnell AFB are required to follow this instruction. QA will provide familiarity briefings as required regarding the procedures in this instruction. Personnel not permanently assigned in a MAJCOM approved tool accountability system will be loaded on a temporary basis as required. The AF IMT 1297 may also be used to issue tools and equipment to non-assigned personnel.

8.2.13.1.2. **(Added)** When work centers elect to distribute/locate CTKs or peculiar support/test equipment to decentralized locations, individuals will follow the same procedures and responsibilities for inventory and turn in outlined in DAFI 21-101 and this instruction.

8.2.14.1. **(Added)** Crash recovery equipment that is permanently stored and/or located in trailers or vehicles will be inspected and controlled IAW MCCONNELLAFBI 21-112, Crash Damaged/Disabled Aircraft Recovery (CDDAR) Procedures.

8.2.15.1.2. **(Added)** For work centers that do not have centralized tool storage or 24-hour operations, technicians called out during off shifts, weekend duty, or standby may sign out their own CTKs. At no time will a technician be authorized to sign open and close the same CTK. After completion of the task, the Production Superintendent (Pro Super) or Flight Chief must sign the CTK closed.

8.2.16.1. **(Added)** Flight Chiefs or NCOICs will designate personnel authorized to access tool room/CTK.

8.5.3.1.1. **(Added)** At least every 180 days (annually for mobility pack up kits and long term stored items), perform a comprehensive inventory of all tools, equipment, to include condition, identification markings and accuracy of the MIL. Inspect all tools for serviceability according to T.O. 32-1-101 and ensure all tools/equipment (test equipment, dispatchable boxes, roll around CTKs, etc.), are free from FO. Individual performing the inspection will document these inventories and inspections in TCMax, PCAMS (NDI), or DPAS/FMxC2 (AGE).

8.5.3.1.2. **(Added)** If a mobility kit or long term stored item is opened for use in between the annual inspection interval, an inspection will be accomplished prior to use and before being placed on an annual inspection cycle. When a pack up kit is being deployed, an inspection is accomplished prior and upon receipt. When returned to home station, the kit will be inspected. All inspections will be documented and maintained.

8.5.3.1.3. **(Added)** Hazardous materials will not be assigned to or stored/housed in CTKs (exception: fuel cell temporary leak repair kits).

8.6.7. **(Added)** Standardized EIDs

8.6.7.1. **(Added)** 22 AMXS CTK/MAJCOM approved tool accountability system IDs:

Figure 8.6.7. 1. (Added) 22 AMXS CTK MAJCOM Approved Tool Accountability System IDs.

Support Section	MKAMXXXXX
Dash-21	MKADXXXXX

8.6.7.2. **(Added)** 22 MXS CTK/MAJCOM approved tool accountability system IDs:

Figure 8.6.7. 2. (Added) 22 MXS CTK/MAJCOM Approved Tool Accountability System IDs.

Fuels	MKMFXXXXX

E&E	MKMEXXXXX
Hydro	MKMHXXXXX
PE Support	MKMIXXXXX
A-Check Support	MKMPXXXXX
Wash Rack	MKMWXXXXX
Wheel & Tire	MKMTXXXXX
AGE Flight	MKMAXXXXX
Metals Tech	MKMMXXXXX
Structures	MKMSXXXXX
NDI	MKMNXXXXX
Munitions	MKMUXXXXX

8.6.7.3. **(Added)** 22 MXG/MXQ: MKGQXXXXX

8.6.7.4. **(Added)** 22 MXO/MQTP: MKMOXXXXX

8.6.7.5. **(Added)** 373 TRS/DET 8: MKTRXXXXX

9.26.1. **(Added)** Fire extinguisher cartridges suspected of having been expended may not be disposed of through DLA and must be turned in to 22 MXS munitions function. **Chapter 10**

11.5.4.1.1.1. **(Added)** See QA program binder for established guidance for administering the ramp inspection program.

11.6.5.2. **(Added)** Aircraft Red Ball Maintenance Guidance.

11.6.5.2.1. **(Added)** Responsibilities and Procedures.

11.6.5.2.2. **(Added)** Technicians will notify the Expediter or Production Superintendent immediately upon notification of a Red Ball discrepancy.

11.6.5.2.3. **(Added)** Production Superintendent /Expediter will inform MOC of all Red Ball discrepancies. A JCN will be requested from MOC and entered into the AFTO Form 781 forms binder when maintenance actions are required.

11.6.5.2.4. **(Added)** If outside agency support is required during Red Ball maintenance, the Production Superintendent will request support through the MOC or contact the agency directly.

11.6.5.2.5. **(Added)** If a component removal/installation is required and necessitates an operational check, the aircrew may perform this function as long as all checks are completed in accordance with applicable technical orders and signed off by technician performing the maintenance.

11.8.3.2.1.1. **(Added)** 22 MXG and 931 MXG units will:

11.8.3.2.1.2. **(Added)** Ensure pre-launch removal and post-recovery installation and removal of aircraft covers are IAW with applicable weapon system TOs.

11.8.3.2.2.1. **(Added)** Ensure all applicable weapon system TOs are followed for FOD prevention when performing high FOD risk maintenance tasks.

11.8.3.6.1.1. **(Added)** Restricted Area Badges will be secured to the person or uniform. Each individual is responsible for properly displaying and securing their RAB.

11.8.3.6.1.2. **(Added)** Methods to secure RABs include a subdued nylon/cotton cord if worn around the neck or armband type holder for display on upper arm. When worn around neck the cord must be a break-away style for safety concerns. When secured to the uniform with only a clip, a secondary attachment point must be used – i.e., nylon/cotton cord.

11.8.3.6.6. **(Added)** Watch caps, ski masks and cold weather caps are authorized for wear on the flight line. Caps will be secured by a headset or ear defenders around an operating engine.

11.8.3.6.6.1. **(Added)** Wear of MXG-issued bump cap is authorized while working on the flightline and inside hangars/industrial areas within the maintenance complex and munitions storage area.

11.8.3.11.2.1. **(Added)** Foreign object debris in the maintenance complex and on the flight line is everyone's responsibility. These guidelines provide a basic framework for keeping areas foreign object free.

11.8.3.11.2.2. **(Added)** Building occupants are responsible for the immediate areas around their buildings, including smoking and trash collection areas. This includes identifying FOD hazards such as broken concrete and degrading asphalt. Units will contact appropriate agencies to correct these conditions.

11.8.3.15.1. **(Added)** Personnel in vehicles entering the aircraft parking ramp from unpaved roads or surfaces shall stop the vehicle, turn off the engine, properly set transmission and parking brake and perform a FOD check by visually checking the tires. Roll the vehicle forward enough to expose the portion of the tire previously contacting the ground and check the tires again.

11.8.3.15.2. **(Added)** Emergency and alert response vehicles are exempt from this policy when responding to actual emergencies or alert quick-reaction responses, simulated or real-world. Operators of these vehicles will notify airfield management as soon as practical and airfield management personnel will perform a FOD check to ensure the route is FOD free.

11.8.3.15.3. **(Added)** Vehicle operators who identify foreign objects in their path will take all possible actions to stop and correct the foreign object condition. When unable to do so, contact airfield management or 22 MXG/931 MXG MOC to report the condition. MOC and airfield management will initiate necessary action to have the foreign object condition addressed.

11.8.4.4. **(Added)** Squadron(s)/unit(s) engaged in flight line/airfield activities must:

11.8.4.4.1. **(Added)** Provide the wing FOD monitor with FOD monitor appointment letters and update said letters when there is a unit FOD monitor change.

11.8.4.4.3. **(Added)** Provide the wing FOD monitor with corrective actions taken on reported (actual or potential) FOD issues.

11.8.4.4.4. **(Added)** Any foreign object or potential FOD problems outside of a squadron's ability to resolve will be reported to the wing FOD monitor for resolution and included in the quarterly FOD meeting agenda.

11.8.4.5. **(Added)** Maintenance personnel will:

11.8.4.5.1. **(Added)** Ensure work areas are free of foreign objects and account for all tools and equipment prior to breaks in maintenance and/or when their maintenance action is complete. Foreign objects will be placed in containers and receptacle(s) (i.e. FOD bags, FOD cans, Buckets, etc.) while maintenance action is in progress. Ensure these containers are properly emptied after maintenance is complete and the end of the duty day.

11.8.4.5.2. **(Added)** Properly store all hardware when working on the aircraft. Small parts and hardware removed from the aircraft will be placed in parts bags and attached to panels or components during breaks in maintenance. Parts bags will be labeled to identify the type/quantity of hardware and associated aircraft tail number/equipment identification information. All personnel will ensure their work area is free of FOD after performing maintenance.

11.8.4.5.3. **(Added)** Inspect all support equipment prior to and after use for potential foreign object hazards (safety wire, trash, hardware, etc.).

11.8.4.5.4. **(Added)** Each individual who signs "Corrected By" and/or "Inspected By" blocks of the aircraft or equipment forms is responsible for the complete foreign object inspection of the area in which their job was performed.

11.8.5.2.1. **(Added)** 22 MXG assigned areas of responsibility, are FOD walk map on QA Sharepoint at McConnell Quality Assurance - Continuity Book - All Documents

11.8.5.2.2. **(Added)** 22 MXG and 931 MXG units will:

11.8.5.2.3. **(Added)** Conduct a Group FOD walk of the areas of responsibility once a week as outlined in the FOD walk map..

11.8.5.2.4. **(Added)** FOD Magnet and FOD Boss will be used by AMXS and MXS in addition to FOD walks to prevent FOD. AMXS will operate the FOD Magnet or Boss on the MAPA at least 3 hours each month. MXS will operate the FOD Magnet or Boss in aircraft towing areas (throats to the MAPA and outside hangars) and around their areas of responsibility at least 3 hours each month. Note: The FOD Magnet will be the preferred method during the winter months due to the bristles released from the snow/ice removal brushes.

11.8.5.2.5. **(Added)** Perform pre and post use FOD walks of Delta, Echo and Fox ramps.

11.8.5.2.6. **(Added)** Transient maintenance personnel will police the transient aircraft parking area and taxiways used during escort of transient aircraft in those areas.

11.8.5.2.7. **(Added)** Vehicle operators are required to perform vehicle FOD inspections at the beginning of each shift prior to going into aircraft movement areas. This inspection includes a circumferential tire check (roll-over check) and a general vehicle walk around to inspect wheel wells and bumpers. The inspection will include removal of any FOD from tire treads and FOD cans.

11.8.5.6. **(Added)** The wing FOD monitor is responsible for scheduling and briefing quarterly FOD meetings.

11.8.6.1.1.2. **(Added)** Upon discovery of any actual or suspected FOD incident:

11.8.6.1.1.3. **(Added)** Report all FOD incidents through the squadron supervisory chain to MOC. A seven-level who maintains the applicable system involved will fully inspect the area for visible damage and complete an MXG Form 21-102, *Foreign Object Damage Report* (Attachment 11). All FOD incidents, minor and major, must be recorded in FMxC2 with the proper "How Malfunction" Code.

11.8.6.1.1.4. **(Added)** MOC will notify the Wing FOD Monitor, the MXG/CC and the 931 MXG/CC, the Airfield Manager, Command Post, QA, and Wing Safety.

11.8.6.1.1.5. **(Added)** The wing FOD monitor and the wing safety office will assume responsibility for initiating, guiding and reporting the investigation.

11.8.8.1. **(Added)** All units will report bird strikes using their supervisory channels and procedures.

11.8.8.2. **(Added)** All ground-found and aircrew reported bird strikes (damage or no damage) will be reported using the MXG Form 21-102.1, Bird Strike Report (**Attachment 7**). All bird strikes will be inspected and documented in the aircraft forms. A "Red Dash" entry and job control number (JCN) will be entered into the aircraft forms.

11.8.8.2.1. **(Added)** Owning AMU Production Superintendent will be responsible for bird strike reporting as follows:

11.8.8.2.1.1. **(Added)** A sampling of snarge/ will be placed into a ziplock bag marked with tail number, date and will be forwarded with the report to maintenance debrief no later than the end of the work shift.

11.8.8.3. **(Added)** MOC will contact command post, wing safety, QA and the MXG/CC and 931 MXG/CC

11.8.8.4. **(Added)** Maintenance debrief will forward all collected snarge and reports to the wing safety Bird Aircraft Strike Hazard (BASH) monitor.

11.9.1.5.1. **(Added)** Squadron commanders from the Maintenance Group (MXG) and 373d Training Squadron (TRS) Detachment 8 are responsible for appointing squadron DOP program monitors in writing. This paperwork will be forwarded to the Wing DOP program monitor (22 MXG/MXQ).

11.9.1.5.2. **(Added)** Production will ensure no maintenance will be performed to repair a dropped object or dropped object collateral damage until an investigation can be conducted and pictures taken as necessary. The required inspection will not be performed without wing DOP program monitor or designated QA representative approval or until the investigation is complete.

11.9.1.5.3. **(Added)** Production will ensure the individual who identifies a dropped object will document the aircraft forms with the appropriate symbol describing the dropped object condition.

11.9.1.5.4. **(Added)** The wing DOP program monitor or designated QA representative will investigate the dropped object and surrounding areas of the aircraft, with support from the crew chief, system specialist and other base agencies as needed, to determine the cause of the dropped object.

11.9.1.5.5. **(Added)** The wing DOP program monitor or designated QA representative will document their investigation on a "Red X". The corrective action will read: "Dropped object investigation complied with in accordance with DAFI 21-101, Aircraft and Equipment Maintenance Management, IAW para 11.9.2.."

11.9.1.5.6. **(Added)** Upon notification of a dropped object, airfield management will perform a foreign object check of the airfield. All findings will be forwarded to the wing DOP program monitor.

11.9.1.5.7. **(Added)** The OG Commander ensures all flight crews support the DOP program IAW 11-2KC-135v3.

11.9.2.3. **(Added)** In the event that the wing DOP monitor is unavailable, a QA representative will initiate and complete the initial investigation and clear the investigation 781A entry IAW para. **11.9.1.5.4** and **11.9.1.5.5**. The DOP investigation/Final report will be reviewed and validated by the wing DOP Monitor prior to submission to the MXG/CC and MAJCOM DOP OPR.

11.9.3.2. **(Added)** The following procedures apply to home station and transient aircraft at McConnell:

11.9.3.2.1. **(Added)** The Pro Super will ensure all dropped objects are reported to the MOC immediately upon discovery. Utilize **Attachment 5** the 22 MXG Form 21-104 for documenting the dropped objects.

11.9.3.2.2. **(Added)** MOC will notify QA and the wing DOP program monitor will begin the DOP investigation.

11.9.3.2.3. **(Added)** When off station (whether transient or operating from a deployed location) the aircraft commander or crew chief will notify the local MOC and McConnell AFB MOC of all dropped objects.

11.9.3.2.4. **(Added)** If the off station location does not have a DOP program, the aircraft commander or crew chief will ensure the dropped object report is completed, placed in aircraft forms and forwarded to the McConnell AFB MOC and Wing DOP program monitor.

11.9.4.1. **(Added)** Upon completion of investigation, wing DOP program monitor will email findings to AMXS/MXA for review before routing to MXG/CC for signature.

11.10.1.1. **(Added)** The KC-46 Aircraft Information Program (AIP) falls under ASIP.

11.10.4.1.1. **(Added)** 22/931 AMXS will:

11.10.4.1.2. **(Added)** Upload Data Display and Transfer Unit (DDTU)/Data Transfer Unit (DTU) data into MIS/Automatic Data Acquisition System (ADAS) IAW appropriate technical data.

11.10.4.1.3. **(Added)** KC-46 Maintenance Supervision with avionics work centers will ensure appointed AIP Monitors coordinate with the 22 MXG ASIP Monitor for all discrepancies/concerns with data capture, download completion, and negative download trend rates.

11.10.4.4.1. **(Added)** 22 MXG ASIP Monitor will ensure aircraft deployed for an extended period of time have DDTU/DTU download capability.

11.10.4.4.2. **(Added)** Deployed maintenance activity will upload data into MIS/ADAS or forward to home station ASIP Monitor for upload.

11.10.4.4.3. **(Added)** 22 MXG ASIP Monitor will coordinate with deployed locations to track McConnell ACFT DDTU/DTU download completion.

11.10.4.6.1. **(Added)** ASIP training is limited to DDTU/DTU download procedures and MIS/ADAS upload procedures. Training will consist of OJT and will be documented on an AF IMT 797 or other appropriate means. Qualified Avionics, Propulsion and Crew Chief technicians will provide the training.

11.10.4.6.2. **(Added)** FCCs will be qualified on aircraft data downloads to ensure data capture for all off station missions.

11.10.6. **(Added)** 22/931 MXS will:

11.10.6.1. **(Added)** Enter "ASIP Repair" in the subject line of all Engineering Technical Assistance Request submitted through the command 202 system that relates to ASIP repair IAW 1C-135-3 series technical orders.

11.10.6.1.1. **(Added)** Report ASIP damage/repairs to Oklahoma City/Air Logistics Center through command 202 system in coordination with QA.

11.13.7.2. **(Added)** Equipment Temporarily Removed (ETR), LRUs may be removed from one end-item to another to facilitate trouble shooting, software uploads, etc.

11.13.7.3. **(Added)** LRUs ETR'd from one end item to another, then returned to their original end item location will not be considered a CANN and will be documented as removed-and-reinstalled to FOM. An operational check will be documented IAW 00-20-1 after the LRU has been reinstalled.

11.13.7.4. **(Added)** LRUs temporarily installed on an end item to facilitate software upload (e.g. to facilitate a retrograde software configuration, or facilitate concurrent mx, etc.) will not be considered a CANN action and will be documented as removed-and-reinstalled to FOM.

11.13.9. **(Added)** Cannibalization Procedures.

11.13.9.1. **(Added)** Responsibilities.

11.13.9.1.1. **(Added)** Pro Supers must work in concert daily to ensure proper priority of CANN parts and complete immediate documentation of all CANN actions and related supply actions.

11.13.9.1.2. **(Added)** All CANN actions will be coordinated through the organization owning the CANN aircraft and or equipment. Approval is specific to the aircraft or spare engine being cannibalized.

11.13.9.1.3. **(Added)** MOC will assign and control CANN JCNs.

11.13.9.1.4. **(Added)** Any requested CANN action involving CFT or AFMC aircraft must be coordinated in advance through the 22 MXG QA PIM with the applicable AFMC/SPO single manager and will be briefed to the 22/931 MXG/CC or CD daily.

11.13.9.2. **(Added)** Procedures.

11.13.9.2.1. **(Added)** When a CANN action is required, the Pro Super requesting the part will:

11.13.9.2.1.1. **(Added)** Coordinate with the owning Pro Super on part availability, aircraft/mission/CANN priorities and effective resource management.

11.13.9.2.1.2. **(Added)** Notify MOC of the CANN action to include nomenclature (include specifics: location, position, etc.), full work unit code, when discovered code, and document number. MOC will load the specific CANN discrepancy in FMxC2, assign a CANN JCN.

11.13.9.2.1.3. **(Added)** ensure all CANN actions are properly documented and tracked, and that all CANN parts are properly controlled and documented, and when necessary, notify LRS aircraft parts store of the CANN action to ensure accuracy of the Mission Capability Assets Sourcing System.

11.13.9.2.1.4. **(Added)** After all aircraft engine CANN options have been exhausted, spare engines may be considered as source of CANN assets. Coordinate with engine management prior to removing any parts from spare engines. Coordinate with engine management through MOC for after-hours spare engine CANN permission.

11.14.6.1. **(Added)** Before releasing for flight, QA will perform a review of all maintenance action in the MIS, forms, and pulled forms since the last flight prior to entering hangar Queen Status. The inspection will be documented in LEAP as MI.

11.26.2. **(Added)** Aircraft Rapid/Hot Defueling Training and Certification Program

11.26.2.1. **(Added)** Rapid/Hot Defuel Personnel. Prior to being trained individuals will meet the following requirements:

11.26.2.1.1. **(Added)** Rapid/Hot Defuel Supervisor. Individual will be qualified as a Defuel Supervisor (Normal). Individual will be familiar with safety precautions of engine operation or hydraulic test stand operation, as applicable.

11.26.2.1.2. **(Added)** Rapid/Hot Defuel Panel Monitor/Operator. Individual will be qualified as a Defuel Panel Operator (Normal).

11.26.2.1.3. **(Added)** Rapid/Hot Defuel Engine Operator. Individual will be qualified and proficient on engine operations.

11.26.2.1.4. **(Added)** Rapid/Hot Defuel Fireguard. Individual will be qualified as Defuel Team Member (Normal) and current on annual block training.

11.48. **(Added) Aircraft Jacking Procedures.**

11.48.1. **(Added)** Procedures.

11.48.1.1. **(Added)** Tow aircraft as required.

11.48.1.2. **(Added)** Aircraft Jacking Locations:

11.48.1.3. **(Added-KC-135)** Primary hangars for aircraft requiring a full jack are Hangar 1166, Hangar 10, 1126, 1125, and 1124 South. **(KC-46)** Primary hangars for aircraft requiring a full jack are Hangars 1126, 1125, 1124 South.

11.48.1.4. **(Added-KC-135)** Alternate full jack (operational checks only) locations are approved by MXG/CC, MXG/CV

11.48.1.5. **(Added-KC-135)** Outside tripod jacking is authorized for operational checks only (all exceptions must be approved by the 22 MXG/CC). Primary outside nose-tail and full jacking locations are Delta 1 thru Delta 4. An alternate outside nose-tail jacking location is the centerline north of 1107.

11.49. **(Added) Periodic Inspection (PE)/Letter Check inspection Procedures and Policies.**

11.49.1. **(Added)** Responsibilities

11.49.1.2. **(Added)** AMXS will:

11.49.1.3. **(Added)** Configure and document the aircraft fuel load. IAW applicable tech data.

11.49.1.4. **(Added)** Manning provide a minimum of one qualified 7-level and one qualified 5-level APG Technician. The assigned technicians will accompany aircraft through the KC-135 PE/KC-46 Letter Check process and report directly to the Dock Chief.

11.49.1.5. **(Added)** Provide sufficient AVI) personnel to accomplish tasks/items IAW applicable tech data during the KC-135 PE/KC-46 Letter Check process.

11.49.1.6. **(Added)** Provide transcribed aircraft forms and applicable FMxC2 maintenance data reports at pre dock. Maintenance data reports will match aircraft forms with status, narratives and document numbers properly annotated.

11.49.2. **(Added)** Dock Controller will:

11.49.2.2. **(Added)** Deactivate the aircraft forms using the locally developed cover sheet prior to the start of the paperless process IAW 00-20-1 AMC Sup.

11.49.2.3. **(Added)** Print or save a current FMxC2 8035 or Global Reach discrepancy print out at every shift change. This printout will be utilized for turnover purposes and with serve as a backup to FMxC2 in the event FMxC2 capabilities are lost.

11.49.3. **(Added)** Procedures.

11.49.3.1. **(Added)** Any access to the KC-135 PE/KC-46 Letter-Check aircraft after hours will be coordinated through 22/931 MXS Production Superintendent.

11.49.3.2. **(Added)** In the event of FMxC2 system loss, all new discrepancies will be entered on the AFTO form 781A and will be maintained in the 781 Forms binder. Once FMxC2 capabilities are restored, all discrepancies will be transferred in to FMxC2 and the AFTO form 781A’s utilized during the outage will be added to the deactivated forms package.

11.49.3.3. **(Added)** Paperless process will use the AFTO form 367 or similar form to document all minor discrepancies. All discrepancies will be loaded into FMxC2.

11.50. **(Added) Equipment Inspection and Documentation.**

11.50.1. **(Added)** Responsibilities/Procedures.

11.50.1.1. **(Added)** TCMAX will be used to track all 244 inspections. (Exception AGE will use DPAS and NDI will use PCAMS IAW 00-20-1)

11.50.1.2. **(Added)** AFTO IMT 244/DPAS 244 paper forms for tools/equipment on a 365 day inspection cycle or equipment that does not provide the ability to attach, the 244 may be maintained in a separate file. Forms will be affixed/accessible to document Prior-to-Use inspections, Discrepancies, and 180 day Supervisory Reviews IAW 00-20-1 para 7.2.

11.50.1.3. **(Added)** AFTO IMT 244 Equipment that does not have a WUC assigned including local manufactured tools and equipment will use WUC ZZ300 in Block 5 of the 244 Form. DPAS 244 SRD, Standard Reporting Designator, will be entered if applicable.

11.50.1.4. **(Added)** Supervisory review: Document supervisory reviews at six- month intervals, unless it is Support Equipment (SE) and has been identified as in storage IAW T.O. 35-1-4. A supervisory review is defined as a review of the AFTO IMT 244/AFTO Form 245/DPAS 244, *Industrial Support Equipment Control (Cont.)*, and equipment master inventory list (if applicable) for proper documentation, accuracy, and currency driven by TO 00-20-1.

11.50.1.5. **(Added)** Equipment without established inspection intervals: When there are no established inspection requirements for special equipment, the periodic inspection interval will be 180 days. Inspections will be conducted using general inspection criteria in TO 00-25-234, TO 34-1-3, and applicable manufacturers' guidelines driven by TO 00-20-1.

11.50.1.6. **(Added)** Forms usage for support and training equipment: DPAS 244/AFTO Forms 244 and 245 and TCMAX will be used (as applicable/prescribed) to document inspection and status reporting for all support and training equipment, as defined in TO 00-20-1,to include locally manufactured stands/equipment. Forms and TCMAX are to match "SEE TCMAX" written in the forms will not be acceptable.

11.50.1.7. **(Added)** Supply document numbers on AFTO Form 244: For units/shops, whose equipment (such as machinery) is not managed through MIS (FMxC2), annotate supply document numbers on the AFTO Form 244.

11.50.1.8. **(Added)** Operator safe/prior-to-use inspection: Each person upon using non-powered (AGE), test and/or training equipment is required to perform a prior-to-use inspection once within a 24-hour period. Prior-to-use inspections will be documented on Part 2 of the AFTO Form 244/DPAS 244. Prior to use inspections will be used to assess the general condition of a piece of equipment (e.g. no frayed wires, cracks, missing hand rail hardware, etc.).

11.50.1.9. **(Added)** Replacement of DPAS 244/AFTO Forms 244 and 245: Any individual that identifies a form is filled to capacity (no room to document the next inspection) is responsible for coordinating with the owning work center for a replacement form. Equipment need not be removed from service while a new form has been requested.

11.50.1.10. **(Added)** Other uses of AFTO Forms 244 and 245: Flight/section chiefs will determine the appropriate forms to be used for equipment not specifically identified by technical data or this supplement.

11.51. **(Added) Hot Brake Procedures.**

11.51.1. **(Added)** The following actions will be accomplished when an aircraft has hot brakes prior to arriving at its designated parking spot:

11.51.1.1. **(Added)** When an aircraft has an actual or suspected hot brake condition, notify the MOC. The MOC will implement the appropriate checklist.

11.51.1.2. **(Added)** The Production Superintendent (wing assigned aircraft) or the Transient Alert (TA) shift supervisor (transient aircraft) will:

11.51.1.3. **(Added)** Respond immediately (or equivalent for TA) to meet with the fire department near the aircraft and be available to inspect the brakes and tires when cleared by the On Scene Commander (Fire Dept).

11.51.1.4. **(Added)** Assemble a tow team with Controlled Movement Area qualified tow tractor operator and tow bar placed on standby, if needed. If Controlled Movement Area qualified tow

tractor operator is not available, ensure a CMA qualified Production Superintendent, expediter, etc. is available to escort the tow.

11.51.1.5. **(Added)** When cleared by the On-Scene Commander (Fire Department) to enter the aircraft area:

11.51.1.6. **(Added)** Verify the aircraft radar is in the standby mode or is shutdown prior to approaching the aircraft.

11.51.1.7. **(Added)** Ensure the nose tires are chocked.

11.51.1.8. **(Added)** Verify with the aircraft commander that the aircraft brakes have been released and all systems have been shut down.

11.51.1.9. **(Added)** After termination of the emergency, tow or taxi the aircraft to the appropriate parking spot.

11.51.1.10. **(Added)** The following actions will be accomplished if aircraft hot brakes are detected after arriving at the parking spot:

11.51.1.11. **(Added)** Ground personnel will notify the aircrew and all personnel will evacuate the area to a minimum distance of 300 feet and notify the MOC of the emergency.

11.51.1.12. **(Added)** With On-Scene Commander (Fire Department) approval, the Production Superintendent will dispatch a qualified 7-level or higher to inspect and/or evaluate the situation prior to termination of the emergency.

11.52. **(Added) Engineering Technical Assistance Request (ETAR)**

11.52.1. **(Added)** Procedures.

11.52.1.2. **(Added)** ETAR requests will be input into the Auto TAR/PFMT system (**https://afsc202.robins.af.mil/)(https://members.lcmp.af.mil/**) or submitted to 22/931 MXG QA **22MXGQADistro@us.af.mil** using the 22/931 MXG ETAR Request Form located at QA SharePoint for published forms. The ETAR will be reviewed/verified by the applicable AMXS/MXS production staff prior to submitting to QA.

11.52.1.3. **(Added)** QA will review submitted ETAR for content prior to routing to engineering. Once the ETAR is submitted to engineering QA will email PS&D and AMXS/MXS supervision with submission time. QA will monitor fleet ETAR system but will not contact engineering unless TO 00-25-107 timelines based upon submission priority are exceeded. AMXS/MXS production superintendent can follow-up with engineering as required. QA will forward returned disposition to PS&D, MXG, and AMXS/MXS supervision.

11.52.1.4. **(Added)** AMXS/MXS production will coordinate with PS&D to ensure documentation of any special waivers, inspections, authorized temporary repairs or “Hold for PDM” discrepancies in AFTO Form 781 series aircraft forms and MIS IAW TO 00-25-107.

11.53. **(Added) Hangar 1124 North Entry & Exit.**

11.53.1. **(Added)** Aircraft Structural Maintenance (ASM) personnel and MXS Production (RED 5) are the authorities for controlling entry, exit and contamination control procedures. Any personnel requiring access to the parts pickup area or the hangar bay will coordinate with ASM or RED 5 for pre-briefing and PPE.

11.53.2. **(Added)** MQTP will provide formal training on hazards and procedures for 1124 North in accordance with the attached training aid and provide refresher training during annual Block Training. Initial training for newcomers will be up to the owning work center and documented on an AF Form 2426, which will be sent to the Unit Training Monitors to be updated. Training will be tracked in FMxC2 for all personnel requiring access to 1124 North utilizing course code MCNL1124.

11.53.3. **(Added)** MOC is responsible for coordination of aircraft tows into or out of 1124 North. Prior to any tow in or out of 1124 North the tow supervisor or AMXS Production will contact MOC for clearance and coordination. MOC will validate the tow supervisor's training, coordinate the pre-entry meeting of ASM or Red 5 and the tow team, and document an entry log for each tow into 1124 North.

11.53.4. **(Added)** Tow supervisors are responsible for validating all tow team members' training and providing an 1124 North pre-task brief. The tow supervisor has overall responsibility for ensuring all members of the tow team comply with procedures mentioned in this memorandum and the attached training aid.

14.2.3.4.5.2. **(Added)** The individual performing the document review will:

14.2.3.4.5.3. **(Added)** Initiate the aircraft document review by printing the document review checklist (22 MXO/PS&D SharePoint under "checklists") and verifying the active forms match FMxC2.

14.2.3.4.5.4. **(Added)** Reconcile the aircraft forms prior to performing the scheduled document review using FMxC2 Screen 8035.

14.2.3.4.5.5. **(Added)** Ensure all discrepancies, job control numbers, and supply document numbers match.

14.2.3.4.5.6. **(Added)** Validate all deferred codes for delayed discrepancies. Update as required.

14.2.3.4.5.7. **(Added)** Transcribe aircraft forms (AFTO Form 781A, AFTO Form 781K, & AFTO Form 781J) for all document reviews using FMxC2 Computer System Screen 9032F.

14.2.3.4.5.8. **(Added)** Ensure all required parts are on order and have valid supply requisition numbers assigned and documented on AFTO Form 781A and AFTO Form 781K.

14.2.3.4.5.9. **(Added)** Close out AFTO Form 781A, document review entry (to include FMxC2) after Supply and PS&D have completed the stated actions and cleared the appropriate forms entries.

14.2.3.4.6.1. **(Added)** Production Superintendent will:

14.2.3.4.6.1.1. **(Added)** Review forms with crew chief for accuracy.

14.2.3.4.6.1.2. **(Added)** Ensure all required items on the document review checklist are completed.

14.2.4.2.1.1.1. **(Added)** The following personnel, as a minimum, will attend all Pre-dock meetings: PS&D, inspection dock chief, Production Superintendent, , supply representative or MSL, Engine Management, Maintenance Squadron Supervision.

14.2.5.1.1.2. **(Added)** The following personnel, as a minimum, will attend all Post-Dock meetings: PS&D, inspection dock chief, Production Superintendent, Maintenance Squadron Supervision.

14.2.6.1.1.2. **(Added)** PS&D will utilize AMC Global Reach to download a copy of the Dash 6 Report daily. In the event FMxC2 is not available for more than 48 hours, the latest file will be printed out and maintained. Manually update the report by lining through old data and writing in changes in red pencil/ink as they occur until FMxC2 is available. As soon as GO81 is available, PS&D will ensure all inspections and time change items are updated. A new report will be downloaded and a thorough review will be accomplished to ensure all changes were updated before disposing of the old products

14.2.8.1. **(Added)** The AF Form 2408, *Generation Maintenance Plan;* AF Form 2409, *Generation Sequence Action Schedule*, (GSAS); or automated equivalents will be maintained/managed by the MOC.

14.2.8.7. **(Added)** Mx Plans, Scheduling and Documentation Section LAO/VLAO Responsibilities.

14.2.8.7.1. **(Added)** 22/931 MXO/PS&D, will pre-coordinate with 22d Operations Support Squadron scheduling (22 OSS/OSOS) and maintenance supervision upon notification for all anticipated Low Altitude Operations (LAO) and/or Very Low Altitude Operations (VLAO) IAW T.O..

14.2.8.7.2. **(Added)** PS&D will ensure "IMPLEMENT LAO ACTIONS" or "IMPLEMENT VLAO ACTIONS" is documented as applicable is in the remarks block of the flying schedule.

14.2.8.7.3. **(Added)** PS&D will contact lead command for VLAO approval and Cognizant Engineering Authority (CEA) for any overdue Individual Aircraft Tracking Program (IATP) inspections that must be accomplished prior to any VLAO.

14.2.8.7.4. **(Added)** PS&D will coordinate with Aircraft Maintenance Squadron (AMXS) to ensure aircraft are properly identified and inspections are tracked and accomplished for use in LAO and VLAO environments IAW T.O.

14.2.8.7.5. **(Added)** PS&D will track LAO and VLAO hours and perform inspections as required IAW T.O..

14.3.1.1.5. **(Added)** Hazardous materials required for TCTO accomplishment will be ordered through coordination between the TCTO owning work center and supply. All hazardous materials for TCI (i.e. batteries) that are not maintained on bench stock, will be ordered via coordination between the P&S Time Change Monitor and supply.

14.3.4.3.13. **(Added)** TCIs. Specific squib responsibilities

14.3.4.3.13.1. **(Added)** PS&D personnel will:

14.3.4.3.13.2. **(Added)** Squib verifications are required during the Periodic Inspection (PE) process (work carded item), and for all aircraft where McConnell gains possession or assignment of an aircraft (i.e., redeploying aircraft, aircraft returning from PDM, inbound transfers, etc.). PS&D will create a job in the MIS and the verification form should be returned to PS&D within 3 duty days.

14.3.4.3.13.3. **(Added)** Using the Munitions Issue Request Form, PS&D will send a request to MXS/MUNS for all squibs requiring time change and all squibs required for unscheduled maintenance. MUNS will not release squibs to AMXS personnel unless PS&D has issued the appropriate Request Form.

14.3.4.3.13.4. **(Added)** Upon receipt of verification form from AMXS, PS&D will validate the squib's lot number by using the AM 517 follow-up form (provided by MUNS) and matching the input provided by AMXS on the squib verification form.

14.3.5.2.1. **(Added)** Major maintenance requests will be coordinated through QA and returned engineering dispositions will be emailed out to all affected agencies. Maintenance Assistance Requests for Depot Field Teams, Contract Field Teams, and Unscheduled Depot Level Maintenance will be generated per T.O. 00-25-107 and sent to HQ AMC/A4MYD for approval/coordination.

14.4.1.2.18.1. **(Added)** Verify aircraft and engine operating times are correct using FMxC2 Screen 8005/8050.

14.4.1.2.18.2. **(Added)** Reconcile Special Inspection and Time Change updates using FMxC2 screen 9188.

14.4.1.2.18.3. **(Added)** Verify TCTO status using FMxC2 screen 8040.

14.4.1.2.18.4. **(Added)** File completed document review checklist and matrix review in the aircraft jacket file.

14.5.6.9.2.1. **(Added)** PS&D will verify in FMxC2 that the previous day’s JCN’s documented on the maintenance page have been completed on time at the beginning of their daily shift. MSE results will be consolidated on the weekly/monthly MSE tracker on the PS&D Share Point.

14.6.1.4.1. **(Added)** Upon notification of Immediate and Urgent action TCTO’s that affect contingency aircraft, PS&D will contact the Deployed Schedulers to discuss any TCTO issues that will affect accomplishment and documentation. Home station PS&D will verify that data in the MIS is accurate after TCTO modification is complete.

14.6.1.7.1. **(Added)** Contingency/Expeditionary (cont./Exp) PS&D will communicate all AVDO possession requests with home station PS&D to ensure proper possession changes are accomplished in a timely manner. This must occur due to limited FMxC2 permissions granted to cont./Exp PS&D.

JOSEPH D. WALL, Colonel, USAF
Commander, 22d Air Refueling Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI AF11-2KC-135 v3 MAFB SUP, *KC-135 Operations Procedures*, 1 June 2023

DAFI 21-101 AMC SUP, *Aircraft and Equipment Maintenance Management,* 14 July 2024

DAFI 21-103 AMC SUP, *Equipment Inventory, Status and Utilization Reporting*, 30 March 2023

MAFBI 21-112, *Crashed, Damaged/Disabled Aircraft Recovery (CDDAR) Procedures,* 9 August 20239

TO 00-5-1, *Technical Order System, 11 September 2023*

TO 00-20-1 AMC SUP, *Aerospace Equipment Maintenance Inspection, Documentation, Policies, and procedures*, 24 June 2024

TO 00-20-2, *Maintenance Data Documentation*, 23 August 2023

TO 00-25-107, *Maintenance Assistance*, 15 August 2022

TO 00-25-234, *General Shop Practice Requirements for the Repair, Maintenance, and Test of Electrical Equipment*, 26 August 2024

TO 34-1-3, *Machinery and Shop Equipment, 26 July 2024*

TO 32-1-101, *Use and Care of Hand Tools and Measuring Tools*, 21 April 2024

TO 1C-135-6, *Aircraft Scheduled Inspection and Maintenance Requirements*, 1 September 2024

TO 1C-135(K)R(II)-1, *Flight Manual USAF Series KC-135RT Aircraft [GATM] Inflight Data*, 15 July 2024

Prescribed Forms

22MXG Form 21-104, *Dropped Object Prevention (DOP) Report*

22MXG Form 181, *Locally Designed Tool and Equipment Approval Form*

22MXG Form 21-102.1, *Bird Strike Report*

22MXG Form 21-111, *Operational Check-Out of Inflight System Report*

22MXG Form 21-18, *Lost Tool/Object Report*

22 MXG From 21-182, *CTK Inventory and Control Log*

22 MXG Form 21-102, *Foreign Object Damage Report*

Adopted Forms

AF Form 1768, *Staff Summary Sheet*

AMC Form 64, *Request for Special Certification*

AF Form 2426, *Training Request and Completion*

AFTO Form 367, *Aircraft Discrepancy Gig Sheet*

AFTO 244, *Industrial/Support Equipment Record*

Abbreviations and Acronyms

ADADS—Automatic Data Acquisition System

AIP—Aircraft Information Program

Com/Nav—Communication and Navigation

DDTU—Data Display and Transfer Unit

EM—Engine Manager

IFCS—Instrument and Flight Control Systems

IO—Impoundment Official

MLG—Main Landing Gear

MFR—Memorandum for Record

MXO—Maintenance Operations

MXQ—Maintenance Group Quality Assurance

OC/ALC—Oklahoma City Air Logistics Complex

OIC—Officer In Charge

PCMCIA—Personal Computer Memory Card International Association

PE—Periodic Inspection

TA—Transient Alert

TO—Technical Orders

Terms

Aircraft Impoundment—Isolation of an aircraft due to an unknown malfunction or condition making it unsafe for flight.

Bench Stocks—Stores of expendability, recoverability, reparability coded (ERRC) XB3 items kept on-hand in a work center to enhance maintenance productivity.

Cannibalization—Authorized removals of a specific assembly, subassembly, or part from one weapons system, system, support system, or equipment end-item for installation on another end-item to meet priority mission requirements with an obligation to replace the removed item.

Composite Tool Kit (CTK)—A controlled area or container used to store tools or equipment and maintain order, positive control, and ease of inventory. CTKs are assembled as a kit and designed to provide quick, easy visual inventory and accountability of all tools and equipment. CTKs may be in the form of a toolbox, a shadow board, shelves, system of drawers (Stanley Vidmar®, Lista®, etc.), cabinets, or other similar areas or containers. The CTK contains tools and equipment necessary to accomplish maintenance tasks, troubleshooting, and repair.

Crash Damaged or Disable Aircraft Recovery (CDDAR)—The ability to move damaged or disabled aircraft using specialized equipment

Debriefing—Program designed to ensure malfunctions identified by aircrews are properly reported and documented.

Decertification—The removal of certification status from a person for a specific task

Dedicated Crew Chief—DCCs are first-level supervisors in the flightline management structure who manage and supervise all maintenance on their aircraft, and are selected on the basis of initiative, management and leadership ability, and technical knowledge.

Delayed or Deferred Discrepancies—Malfunctions or discrepancies not creating NMC or PMC status that are not immediately corrected.

Depot Level Maintenance—Maintenance consisting of those on- and off-equipment tasks performed using the highly specialized skills, sophisticated shop equipment, or special facilities of a supporting command; commercial activity; or inter service agency at a technology repair center, centralized repair facility, or, in some cases, at an operating location. Maintenance performed at a depot may also include organizational or intermediate level maintenance as negotiated between operating and supporting commands.

Dispatchable CTK—CTK issued out and is designed to be used outside the work center.

Equipment Custodian—Individual responsible for all in-use equipment at the organizational level whose duties include requisitioning, receiving, and controlling of all equipment assets.

Equipment Identification Designator (EID)—A number assigned to a piece of shop equipment, used to track status and accountability.

Equipment Items—Item authorized in the allowance standard within an organization.

Flight Chief—NCO responsible to the maintenance officer or superintendent for management, supervision, and training of assigned personnel.

FMxC2/MAF Log C2—(formerly CAMS-FM) is the maintenance information system of record for cargo (tactical and strategic) and aerial refueling weapon systems. FMxC2 provides enterprise logistics command and control (C2) of the mobility fleet (e.g., status, location, availability, & capability) needed by decision makers at USTRANSCOM, 18AF/618AOC, and HQ AMC.

In-Process Inspection (IPI)—Inspection performed during the assembly or reassembly of systems, subsystems, or components with applicable technical orders.

Individual Tools and Equipment—Tools and equipment that are available for individual sign-out but stored in the tool room in storage bins, cabinets, shelves, etc., with every item having an assigned location (e.g., flashlights, ladders).

Intermediate-Level Maintenance—Maintenance consisting of those off-equipment tasks normally performed using the resources of the operating command at an operating location or at a centralized intermediate repair facility.

Maintenance Training—Any proficiency, qualification, or certification tasking required by a technician to perform duties in their primary AFSC.

Master Inventory List (MIL)—Primary source document for inventory of CTKs. The MIL indicates the total number of items in each drawer or section of the tool kit. MIL may be automated.

Mission Design Series (MDS)—Alpha and numeric characters denoting primary mission and model of a military weapons system.

Off-Equipment Maintenance—Maintenance tasks that are not or cannot be effectively accomplished on or at the weapon system or end-item of equipment, but require the removal of the component to a shop or facility for repair.

On-Equipment Maintenance—Maintenance tasks that are or can be effectively performed on or at the weapon system or end-item of equipment.

Personnel Protective Equipment (PPE)—Equipment required to do a job or task in a safe manner.

Production Superintendent (Pro Super)—Senior NCO responsible for squadron maintenance production. Directs the maintenance repair effort.

Programmed Depot Maintenance (PDM)—Maintenance activities requiring skills, equipment, or facilities not normally possessed by operating locations.

Quality Assurance (QA)—Office or individual who monitors maintenance (organic or contractor) on a daily basis.

Recurring Discrepancy—A recurring discrepancy is one that occurs on the second through fourth sortie or attempted sortie after corrective action has been taken and the system or sub-system indicates the same malfunction when operated.

Repeat Discrepancy—One repeat discrepancy occurs on the next sortie or attempted sortie after corrective action has been taken and the system or sub-system indicates the same malfunction when operated.

Technical Order Distribution Office (TODO)—Function required to maintain records on TOs received and distributed.

Time Compliance Technical Order (TCTO)—Authorized method of directing and providing instructions for modifying equipment, and performing or initially establishing one-time inspections.

Attachment 2 (Added)

MANUAL JOB CONTROL NUMBERS

A2.1. The below Section assigned Job Control Numbers are to be used when GO81 is not available.

Figure A2.1. Job Control Numbers.

Last Four of Control Number	**Description**
0001-0099	Used to identify the crew chief & assistant, and the base that the aircraft is assigned to. Any JCN within the range specified may be used for this note
0100-–0299	For Aircraft Notes (used for placing aircraft on certain restrictions)
0300-–0499	Used for ‘system test program’ such as ‘test equipment installed’
0500-–0999	Informational Notes
A001-A999	PE Inspection
B001-B999	Open
C001-C999	KC-46 A-Check
D001-D999	EW
E001-E999	HSC/HPO
F001-F999	HSC
G001-G999	HSC
H001-H999	HSC/Boom Inspection
J001-J999	HSC
K001-K999	HSC
P001-P999	51-Month PDM Extension
R001-R999	Contract Field Team
1000-1599	Open
1600-1699	Dash 6 Inspections & Time Change

1700-1799	MQTP/DET 8/FTD
1800-1899	COMM/NAV
1900-1999	IFCS
4000-4399	MOC
4400-4799	Debrief
4800-4899	22 MXG/931 MXG/QA
4900-4999	JETS
5000-5199	Red Ball
5200-5299	Cannibalization
5300-5325 & 53XX	Off-Shore Spt (Part needed from a home station unit for an aircraft broke en-route at a non-FMxC2 location. This JCN would be loaded by the home-station MOC against the broke/off station aircraft. A normal CANN job would be loaded on the aircraft the part is being CANN'd from & 53XX is loaded against the CANN-for aircraft)
5326-5330	Impoundment JCN. Use one JCN per impoundment per aircraft
5331-5335	FMxC2 generated internally from program 9102
5350-5399	Power-on Preflight
5400-5499	Repair and Reclamation
5500-5599	Electrics/Environmental
5600-5699	Pneudraulics
5700-5799	Fuel Cell
5800-5899	NDI Inspections
6000-6299	AGE
6300-6499	Wheel and Tire
6500-6899	Aircraft Refurbishment/Equipment Excellence
7000-7099	Metals Tech/Welding
7199-7299	CEMS

7300-7399	Test, Measurement, and Diagnostic Equipment
7400-7499	931 MXG
7500-7999	Aircraft General Support Use
8000-8099	Support Section
8200-8299	Transient Alert
8300-8399	Reserved for Future Use
8900-8999	TACC Assigned via GDSS2
9500-9699	TCTO
9800-9998	TCTO
Z001-Z299	Aircraft Acceptance Inspection
Z300-Z700	Acceptance Found Discrepancies
Z701-Z999	PS&D/Reserved for Future Use
NOTE: In addition, a JCN with an alpha character in the fourth character and then 001-999 in the last three characters is reserved for phase inspection IAW TO 00-20-1.	

Attachment 3 (Added)

IMPOUND MEMORANDUM

A3.1. Impound Official Memorandum.

Figure A3.1. Impoundment Summary Memorandum, Part 1.

DEPARTMENT OF THE AIR FORCE
22D AIR REFUELING WING (AMC)
MCCONNELL AIR FORCE BASE KANSAS

(Date)

MEMORANDUM FOR RECORD

FROM: IMPOUNDMENT OFFICIAL (Name)

SUBJECT: Impoundment Summary, Aircraft (Tail #)

1. **Discrepancy:** Give discrepancy as stated in the AFTO Form 781As

2. **Aircrew Action:** Provide any information stated by the crew that was not included in the 781A write-up. This will help provide additional details concerning the incident.

3. **Impoundment Team:**
(Name)- Impoundment Official
(Name)- QA Representative List of
Technicians
List of Engineers Consulted (if applicable)

4. History: Provide a 90-day history of any discrepancies similar to the impoundment discrepancy this aircraft experienced. List each discrepancy separately to include date, JCN, discrepancy, and corrective action. Use the following example:
(Date)
JCN: As listed
Discrepancy: As stated in the 781As Corrective
Actions: As stated in the 781As Include:
Work Unit Codes of all components replaced, adjusted, or repaired Part
numbers of all components replaced, adjusted, or repaired
TO, figure and index of all components replaced, adjusted, or repaired
Number of man hours expended troubleshooting and repairing impounded aircraft

Figure A3.2. Impoundment Summary Memorandum, Part 2.

5. **Troubleshooting/Repair:** Use information from the impoundment log maintained to highlight what troubleshooting procedures were used and what repair actions were accomplished. Include a list of parts replaced and/or repaired and total cost incurred.

6. **Findings:** Give a brief synopsis of what you believe caused the discrepancy and if any follow-up action should be initiated, e.g., AFTO 22, Local One-Time Inspection, QDR actions, etc.

7. **Conclusion:** Summarization of history, repair actions, etc.

8. **Recommendation:** Change technical order procedures through AFTO 22, etc.

9. **Other Issues:** Anything else of significance you feel needs to be addressed.

Signature Block
Impoundment Official

1st Ind., 22 MXG/CC

I have reviewed the impound summary for aircraft (XX-XXXX). I concur_ /non- concur _____with the maintenance action completed in this report.

Attachment 4 (Added)

IMPOUND OFFICIAL CHECKLIST

A4.1. 22 MXG Checklist 21-8.

Figure A4.1. Impoundment Official Checklist.

IMPOUNDMENT OFFICIAL CHECKLIST

SECTION I. AIRCRAFT INFORMATION

1. AIRCRAFT/EQUIPMENT TYPE	2. SERIAL NUMBER	3. DISCOVERED BY *(RANK, LAST NAME)*	
4. SQUADRON	5. SECTION	6. DUTY PHONE	7. DATE OF LAST FLIGHT
8. QA REPRESENTATIVE *(RANK, LAST NAME)*		9. IMPOUND OFFICIAL *(RANK, LAST NAME)*	

SECTION II. IMPOUNDMENT

ITEM	C/W	INITIALS	DATE
1. If required, have the impound officer, production superintendent, QA and specialists meet aircrew at debrief.	☐		
2. Isolate and identify aircraft/equipment as "Impounded". Restrict entry to those authorized by the impound official. No items will be removed without approval from the impound official.	☐		
3. Ensure aircraft/equipment forms are documented to reflect the impoundment. Ensure MOC has loaded the impound package into G081.	☐		
4. Ensure aircraft jacket file/equipment history is secured as applicable.	☐		
5. Ensure steps are taken to safeguard CVR/FDR data on aircraft impounded for potential safety related incidents as applicable.	☐		
6. Do not allow the aircraft/equipment forms to be transcribed until all associated maintenance is complete. All transcribed forms and related maintenance actions will be reviewed by QA.	☐		
7. Authorize maintenance actions on the aircraft/equipment. Consider giving production superintendent authority to work systems associated with the impound write up as required.	☐		
8. Ensure the most qualified/experienced personnel available are dedicated to the investigation. Appoint one technician as the POC for all maintenance actions.	☐		
9. Plan troubleshooting with specialists prior to start of maintenance actions.	☐		
10. Brief MXG/CC of intended actions to resolve problems as required. Continue to update the MXG/CC on the progress of the investigations and repairs.	☐		
11. Complete investigation and determine the most likely cause.	☐		
12. Initiate/complete repairs. Document all actions taken. Ensure completeness of applicable operational checks/ documentation.	☐		
13. If required, coordinate operational check flight or taxi check.	☐		
14. Review aircraft/equipment forms to ensure discrepancies that originally caused an impoundment is/are properly documented IAW TO 00-20-1.	☐		
15. Bring all worksheets, supporting documentation and aircraft/equipment forms to QA for review prior to requesting release from impoundment.	☐		
16. Complete the impoundment Summary MFR/Final Report, route through Squadron Leadership as applicable.	☐		
17. Provide electronic copy of MFR and staff summary sheet to QA. QA will route to MXG/CC *(or the designated release authority)*.	☐		
18. Take aircraft/equipment forms to MXG/CC *(or the designated release authority)* to review and complete the release of the impoundment. Be prepared to brief all findings and actions taken during the investigation.	☐		
19. Deliver completed IO checklist, impound documents, and completed impoundment summary MFR to QA.	☐		
20. Notify MOC, PS&D, Analysis, and aircraft/equipment work center of impoundment release.	☐		

22 MXG FORM 21-8, 20250430 PREVIOUS EDITIONS OBSELETE

Attachment 5 (Added)

DROPPED OBJECT PREVENTION (DOP) REPORT

A5.1. Use The Below Report To Document And Process DOP Program Events.

Figure A5.1. [22 MXG FORM 21-104 Dropped Object Prevention Report.

DROPPED OBJECT PREVENTION *(DOP)* PROGRAM REPORT

SECTION I. AIRCRAFT HISTORY/DOP LOCATION

1. QA CONTROL NUMBER	2. MDS	3. AIRCRAFT *(A/C)* TAIL NUMBER	4. OWNING ORGANIZATION/BASE
5. ORIGIN OF SORTIE	6. DATE/TIME OF DOP	7. DISCOVERY LOCATION	
8. ITEM DESCRIPTION	9. WHEN DISCOVERED CODE	10. LAST MISSION TYPE	
11. RUNWAY INSPECTION COMPLIED WITH ☐YES ☐NO		12. 90 DAY HISTORY COMPLIED WITH ☐YES ☐NO	
13. AFTO 781 A ENTRY 13a. PG: 13b. ITEM: 13c. DATE:	14. JOB CONTROL NUMBER	15. A/C IMPOUNDED	16. GEO LOCATION OF DOP
17. CAUSE	18. DATE OF LAST ISO	19. DATE OF LAST HPO	
20. LAST MAINTENANCE PERFORMED IN AREA:		20a. DATE:	

SECTION II. NOTIFICATION HISTORY

1. MOC REPRESENTATIVE		2. MAINTENANCE SUPERVISOR		3. QA REPRESENTATIVE	
1a. NAME: *(RANK, LAST NAME)*		2a. NAME: *(RANK, LAST NAME)*		3a. NAME: *(RANK, LAST NAME)*	
1b. TIME:	1c. DATE:	2b. TIME:	2c. DATE:	3b. TIME:	3c. DATE:

SECTION III. DOP INFORMATION

1. STOCK NUMBER	2. PART NUMBER	3. NOUN		4. WORK UNIT CODE
5. T.O. NUMBER	6. T.O. FIG	7. T.O. INDEX	8. COST OF PART/REPAIR	9. MAN HOURS

SECTION IV. QA INFORMATION

1. INVESTIGATION FINDINGS/CAUSE *(WHO, WHAT, WHEN, WHERE, WHY, HOW) (USE SECTION V FOR ADDITIONAL INFORMATION)*

2. ACTIONS TO PREVENT RECURRENCE

3. AMC POC NOTIFIED OF DOP ☐YES ☐NO DATE: TIME:	4. INVESTIGATION C/W ☐YES ☐NO	5. INPUT INTO DOP DATABASE ☐YES ☐NO DATE:
6. QA INSPECTOR: *(RANK, NAME)*	7.DATE	8. FILED IN QA PROGRAMS FOLDER ☐YES ☐NO DATE:

22 MXG FORM 21-104, 20250430 PREVIOUS EDITIONS OBSELETE

Attachment 6 (Added)

LOCALLY DESIGNED TOOL AND EQUIPMENT

A6.1. This form is used to obtain approval for Locally Designed Tools and Equipment.

Figure A6.1. Locally Designed Tool And Equipment Request.

LOCALLY DESIGNED TOOL AND EQUIPMENT (LDTE) APPROVAL REQUEST

SECTION I. REQUESTOR INFORMATION

1. QA CONTROL NUMBER	2. REQUEST DATE	3. REQUESTER (*RANK/LAST NAME*)	4. DUTY PHONE

5. SQUADRON	6. OFFICE SYMBOL	7. QTY REQUEST	8. SECTION CHIEF (*RANK/LAST NAME*)

SECTION II. TOOL INFORMATION

1. DESRIPTION OF TOOL

2. REASON FOR TOOL

3. DESCRIPTION OF TASK REQUIRING TOOL AND TECH ORDER REFERENCE FOR THE TASK

SECTION III. MXG REQUEST STATUS

1. QA SUPERVISION (*NAME/RANK/TITLE*)	2. APPROVE (*IF NO, SEE SEC V*) ■ YES ☐ NO	3. QA SUPERVISION SIGNATURE
1. MXG COMMANDER (*NAME/RANK/TITLE*)	3. APPROVE (*IF NO, SEE SEC V*) ■ YES ☐ NO	6. MXG COMMANDER SIGNATURE

SECTION IV. QA REPRESENTATIVE

1. QA REPRESENTATIVE (*RANK/NAME*)	2. DATE	3. FILED IN PROGRAMS FOLDER
759-4985		

22 MXG FORM 181, 20250430 PREVIOUS EDITIONS OBSELETE

Attachment 7 (Added)

BIRD STRIKE REPORT

A7.1. This form is used to report aircraft bird strikes.

Figure A7.1. [22 MXG Form 21-102.1 Bird Strike Report.

BIRD STRIKE REPORT

SECTION I.

1. QUALITY ASSURANCE *(QA)* CONTROL NUMBER	2. MDS	3. AIRCRAFT*(A/C)* TAIL NUMBER	4. MOC CONTROLLER *(NAME)*

5. OWNING ORGANIZATION/BASE	6. ORIGIN OF SORTIE	7. DATE/TIME OF LAST SORTIE	8. SORTIE DURATION	9. DATE/TIME DISCOVERED

10. WHEN DISCOVERED	11. AIRCRAFT COMMANDER	12. FEATHERS FORWARDED TO DEBRIEF ☐YES ☐NO

13. REPORT FORWARDED TO QA ☐YES ☐NO	14. WING SAFETY NOTIFIED ☐YES ☐NO 14a. NOTIFIED BY:	15. AFTO 781 A ENTRY 15a. PG: 15b. ITEM: 15c. DATE:	11. JOB CONTROL NUMBER *(JCN)*

SECTION II. *(IF DAMAGE FOUND)*

1. AIRCRAFT DAMAGE ☐YES ☐NO	2. AFTO 781 A ENTRY 2a. PG: 2b. ITEM: 2c. DATE:	3. GO81 JCN	4. PART NUMBER

5. STOCK NUMBER	6. NOUN	7. WORK UNIT CODE

8. T.O. NUMBER	9. T.O. FIG	10. T.O. INDEX	11. COST OF PART/REPAIR	12. MAN HOURS

SECTION III.

1. POINT*(S)* OF IMPACT *(BE SPECIFIC)*

2. DAMAGE DESCRIPTION

3. CORRECTIVE ACTION *(BOROSCOPE, REPAIRS, WIPE DOWN, ETC.)*

4. QA INSPECTOR: *(RANK, NAME)*	5.DATE	6. FILED IN QA PROGRAMS FOLDER ☐YES ☐NO DATE:

22 MXG FORM 21-102.1, 20250430 PREVIOUS EDITIONS OBSELETE

Attachment 8 (Added)

OPERATIONAL CHECK-OUT OF INFLIGHT SYSTEM FORM

A8.1. This form is used to coordinate the request for OCF/FCF, HST, or CF.

Figure A8.1. Operational Check-out of Inflight System Form.

OPERATIONAL CHECK-OUT OF INFLIGHT SYSTEM REPORT

FUNCTIONAL CHECK FLIGHT	OPERATIONAL CHECK FLIGHT	HIGH SPEED TAXI	CONFIDENCE FLIGHT
☑	☐	☐	☐

SECTION I.

1. QA CONTROL NUMBER	2. MDS	3. AIRCRAFT TAIL NUMBER	4. OWNING ORGANIZATION/FLIGHT

5.DATE	6. AFTO 781A ENTRY 6a. PAGE 6b. ITEM 6c. DATE	7. JOB CONTROL NUMBER

SECTION II. BRIEFING

1. REASON FOR CHECK

2. PREVIOUS MAINTENANCE PROBLEMS/DISCREPANCIES

3. FLIGHT PROFILE REQUIRED FOR FLIGHT

4. REQUIRED AIRCRAFT CONFIGURATION AND SPECIFIC MAINTENANCE PREPARATIONS

5. QA REPRESENTATIVE	6. WEIGHT AND BALANCE VERIFIED ☐YES ☐NO ☐N/A	7. FORMS DOCUMENTATION VERIFIED ☐YES ☐NO
8. PILOT	9. COPILOT	10. BOOM OPERATOR

SECTION III. DEBRIEFING

1. DATE	2. TIME	3.TAKE OFF TIME	4. LANDING TIME	5. QA REPRESENTATIVE

6. MAINTENANCE REPRESENTATIVE	7. DEBRIEFER	8. AIRCRAFT RELEASED ☐YES ☐NO

9. FORMS SIGNED OFF ☐YES ☐NO	10. DISCREPANCIES ENTERED IN FORMS ☐YES ☐NO	11. FILED IN QA PROGRAMS FOLDER ☐YES ☐NO 11a. DATE

12. INFLIGHT DISCREPANCIES RELATED TO CHECK *(INCLUDE JOB CONTROL NUMBER)* FOR CONTINUATION SEE SECTION IV ON BACK

13. SEND COMPLETED FORM TO PS&D FOR JACKET FILE

13a. COMPLETED FORM SENT BY: *(RANK, LAST NAME, FIRST NAME)*	13b. DATE

22 MXG FORM 21-111, 20250430 PREVIOUS EDITIONS ARE OBSOLETE

Attachment 9 (Added)

LOST TOOL/OBJECT REPORT

A9.1. This form is used to report lost Tools/Objects.

Figure A9.1. MXG Form 21-18 Lost Tool/Object Report.

LOST TOOL/OBJECT REPORT

SECTION I.

1. QA CONTROL NUMBER	2. TODAY'S DATE	3. DATE/TIME LOST	4. SQUADRON AND WORKCENTER

5. CTK NUMBER	6. DESCRIPTION OF OBJECT LOST

SECTION II. NOTIFICATION HISTORY

PERSONNEL NOTIFIED	RANK/LAST NAME	DATE	TIME	NOTIFIED BY
1. WORK CENTER SUPERVISOR OR EXPEDITER				☐ PHONE ☐ IN-PERSON
2. CTK SUPERVISOR				☐ PHONE ☐ IN-PERSON
3. PRO SUPER *(MOC DOES NOT ROUTE REPORT)* ☐ INSTRUCT MOC TO INTIATE QRC ☐ PRO SUPER CONTINUES ROUTING				☐ PHONE ☐ IN-PERSON
4. FLIGHT CHIEF *(MXS)* AMU OIC/CHIEF *(AMXS)*				☐ PHONE ☐ IN-PERSON
5. SQUADRON MAINTENANCE SUPERVISION				☐ PHONE ☐ IN-PERSON
6. QA ASSIGN CONTROL NUMBER AND MONITOR FOR COMPLETION				☐ PHONE ☐ IN-PERSON

7. MXG/CC NOTIFIED BY MOC ☐ YES ☐ NO 7a. TIME:	8. QA NOTIFIED ☐ YES ☐ NO 8a. TIME:	9. NAME/RANK OF QA NOTIFIED

SECTION III. LOST TOOL INFORMATION

1. ITEM LOST ON OR AROUND AIRCRAFT ☐ YES ☐ NO ☐ UNKNOWN	2. AIRCRAFT SERIAL NUMBER	3. JOB CONTROL NUMBER

4. NAME OF INDIVIDUAL THAT SIGNED THE TOOL OUT	5. NAME OF INDIVIDUAL*(S)* THAT LOST ITEM *(IF DIFFERENT)*

6. WORK BEING PERFORMED/AREAS TOOL WAS USED IN WHEN ITEM WAS LOST

7. AREAS CHECKED/STEPS TAKEN TO FIND ITEM

8. DATE/TIME SEARCH STARTED	9. DATE/TIME SEARCH TERMINATED	10. FOUND AT A LATER DATE ☐ YES ☐ NO *(IF YES PROVIDE WHEN/WHERE IN SECTION V AND RETURN TO QA TO COMPLETE ORIGINAL REPORT)*

11. SEND A COPY TO WING FOD MONITOR *(22 MXG QA)* WITHIN 3 DUTY DAYS *(QA/ALL ORG BOX)*

SECTION IV. QA INFORMATION

1. QA INSPECTOR: *(RANK, NAME)*	2.DATE	3. FILED IN QA PROGRAMS FOLDER ☐ YES ☐ NO 3a. DATE:

22 MXG FORM 21-18. 20250430 PREVIOUS EDITIONS OBSELETE

Attachment 10 (Added)

CTK INVENTORY AND CONTROL LOG

A10.1. This form is used to document tool/CTK inventories.

Figure A10.1. [22 MXG Form 21-182, CTK Inventory and Control Log.

CTK INVENTORY AND CONTROL LOG

SECTION I. SUPPORT SECTION INFORMATION

1. ISSUING SUPPORT SECTION	2. SHIFT

SECTION II. INVENTORY AND CONTROL LOG

DATE	EMPLOYEE NUMBER	TOOL NUMBER & NOMENCLATURE	CTK/TOOL DESTINATION	OUT *(TIME/SIGNATURE)*	IN *(TIME/SIGNATURE)*

22 MXG FORM 21-182, 20250530 PREVIOUS EDITIONS OBSELETE

Attachment 11 (Added)

FOREIGN OBJECT DAMAGE REPORT

A11.1. This form is used to report Foreign Object Damage.

Figure A11.1. [22 MXG Form 21-102, Foreign Object Damage Report.

FOREIGN OBJECT DAMAGE *(FOD)* REPORT

SECTION I.

1. QA CONTROL NUMBER	2. MDS	3. AIRCRAFT *(A/C)* TAIL NUMBER	4. OWNING ORGANIZATION/BASE

5. DATE/TIME OF FOD	6. DISCOVERY LOCATION	7. WHEN DISCOVERED	8. TYPE OF FOD

9. DISCOVERED BY	10. AFTO 781 A ENTRY	11. JOB CONTROL NUMBER	12. PREVENTABLE
	10a. PG: 10b. ITEM: 10c. DATE:		☐ YES ☐ NO

SECTION II. NOTIFICATION HISTORY

1. MOC REPRESENTATIVE	2. MAINTENANCE SUPERVISOR	3. QA REPRESENTATIVE
1a. NAME: *(RANK, LAST NAME)*	2a. NAME: *(RANK, LAST NAME)*	3a. NAME: *(RANK, LAST NAME)*
1b. TIME: 1c. DATE:	2b. TIME: 2c. DATE:	3b. TIME: 3c. DATE:
4. WING SAFETY NOTIFIED ☐ YES ☐ NO DATE:	5. WING FOD MANAGER NOTIFIED ☐ YES ☐ NO DATE:	6. WING FOD MONITOR NOTIFIED ☐ YES ☐ NO DATE:

SECTION III. DOP INFORMATION

1. ENGINE TYPE	2. ENGINE POSITION	3. ENGINE TIME	4. ENGINE SERIAL NUMBER

5. TIME SINCE OVERHAUL	6. TIME SINCE INSPECTION	7. ENGINE STAGES WITH DAMAGE

8. AIRFRAME TIME	9. AIRFRAME AREA AFFECTED	10. COST OF PART/REPAIR	11. MAN HOURS

SECTION IV. QA INFORMATION

1. INVESTIGATION FINDINGS/CAUSE *(WHO, WHAT, WHEN, WHERE, WHY, HOW)*

2. PROJECTED REPAIRS AND COST OF DAMAGE

3. ACTIONS TO PREVENT RECURRENCE

4. QA INSPECTOR: *(RANK, NAME)*	5.DATE	6. FILED IN QA PROGRAMS FOLDER
		☐ YES ☐ NO DATE:

22 MXG FORM 21-102, 20250430 PREVIOUS EDITIONS OBSELETE

Attachment 12 (Added)

22 MXG LOCAL RADIO CALL SIGNS

A12.1. Use the below local radio call signs when utilizing LMRs for flightline communication.

Figure A12.1. 22 MXG LOCAL RADIO CALL SIGNS.

22 MXG/931 MXG	
Position	**Call Sign**
22d Maintenance Group Commander	Cougar 4
22d Deputy Maintenance Group Commander	Cougar 4A
22d Maintenance Group Chief	Havoc 3
931st Maintenance Group Commander	Leopard 4
931st Deputy Maintenance Group Commander	Leopard 4A
931st Maintenance Group Chief	Havoc 3A
22 MXG Quality Assurance	
Position	**Call Sign**
QA Superintendent	QA 1
QA Chief Inspector	QA 2
QA Inspector	QA 3
Wing Inspection Team (MXG Lead)	Inspector 1
Wing Inspection Team (MXG Member)	Inspector 2
22 AMXS	
Position	**Call Sign**
Commander	Archer 1
Maintenance Operations Officer	Archer 2
Maintenance Superintendent	Archer Chief
Line Chief	Archer 3
Debrief	Debrief
Dispatch	Dispatch
931 AMXS	
Position	**Call Sign**
Commander	Thunder 1
Maintenance Operations Officer	Thunder 2
Maintenance (Chief) Superintendent	Thunder Chief
Green AMU	
Position	**Call Sign**
AMU OIC	Green Lead

AMU Superintendent	Green Super
Production Supervisor	Green 1
Expediter A Section	Green 2
Expediter B Section	Green 3
Specialist Expediter	Green 4
Avionics Section	Green 5
Mechanical Section	Green 6
Uke Driver 1,2, etc.	Green Uke 1,2, etc.
Blue AMU	
Position	**Call Sign**
AMU OIC	Blue Lead
AMU Superintendent	Blue Super
Production Supervisor	Blue 1
Expediter A Section	Blue 2
Expediter B Section	Blue 3
Specialist Expediter	Blue 4
Avionics Section	Blue 5
Mechanical Section	Blue 6
Uke Driver 1,2, etc.	Blue Uke 1,2, etc.
Black AMU	
Position	**Call Sign**
AMU OIC	Black Lead
AMU Superintendent	Black Super
Production Supervisor	Black 1
Expediter A Section	Black 2
Expediter B Section	Black 3
Specialist Expediter	Black 4
Avionics Section	Black 5
Mechanical Section	Black 6
Uke Driver 1,2, etc.	Black Uke 1,2, etc.
Support Flight	
Position	**Call Sign**
Atlas Support Flight	Atlas 1
Atlas -21	Atlas 2
22 MXS	
Position	**Call Sign**
Commander	Red 1

MXS Operations Officer	Red 2
MXS (Chief) Superintendent	Red Chief
931st Commander	Maroon 1
931 Operations Officer	Maroon 2
931 Superintendent	Maroon Chief
MXS Assistant Superintendent	Red 3
MXS Lead Production Supervisor	Red 4
MXS Production Supervisor	Red 5
Inspection Dock 1	Red 6 Alpha
Inspection Dock 2	Red 6 Bravo
Repair and Reclamation Mobile	Red 7 Alpha
Repair and Reclamation Base	Red 7 Base
Aero Ground Equipment Mobile	Red 8 Alpha, Red 8 Bravo
Aero Ground Equipment Base	Red 9
Structures Mobile	Red 10 Alpha
Structures Base	Red 10 Base
Metals Tech	Red 11 Alpha
NDI	Red 11 Bravo
Fuel Systems Repair Mobile	Red 12 Alpha
Fuel Systems Repair Base	Red 12 Base
MXS Launch Truck	Red 14
Maintenance Operations	
Position	**Call Sign**
Maintenance Operations Officer In Charge (OIC)	Phoenix 1
Maintenance Operations Superintendent	Phoenix 2
931st Maintenance Operations Director	Firebird 1
931st Maintenance Operations Superintendent	Firebird 2
Maintenance Operations Center	MOC
Maintenance Qualification and Training Program	Training
Plans, Scheduling, and Documentation	Scheduling
Analysis	Analysis
373 TRS/Detachment 8	
Position	**Call Sign**
FTD Superintendent	FTD Super
FTD Trainer 1	FTD 1
FTD Trainer 2	FTD 2

Call Signs For Combined AMU Operations And Generation, Or When Deemed Necessary By 22 AMXS Supervision	
Position	**Call Sign**
AMU OIC	Tanker Lead
AMU Superintendent	Tanker
Lead Pro Super	Tanker Pro
Production Supervisor	Tanker 1
Crew Chief Expediter Cell 1/3	Tanker 2
Crew Chief Expediter Cell 2/4	Tanker 3
Avionics Expediter	Tanker 4
Mechanical Expediter Cell 1/3	Tanker 5
Mechanical Expediter Cell 2/4	Tanker 5A
Generation Pro Super	Tanker 6
Alert Pro Super	Tanker 7
Alert Expediter	Tanker 8
AARP Pro Super	Tanker 9
Cell Boss 1	Cell Boss 1
Cell Boss 2	Cell Boss 2
Cell Boss 3	Cell Boss 3
Cell Boss 4	Cell Boss 4
Real World Ramp During Exercise	
Position	**Call Sign**
AMU OIC	Warrior Lead
AMU Superintendent	Warrior Super
Production Super	Warrior 1
Expediter A Flight	Warrior 2
Expediter B Flight	Warrior 3
Avionics Flight	Warrior 4
Mechanical Flight	Warrior 5
Dispatch	Warrior Dispatch
Uke 1,2, etc.	Warrior Uke 1, 2, etc.
931 AMXS for use during UTA (if needed)	
Position	**Call Sign**
AMU OIC	Brave Lead
AMU Superintendent	Brave Super
Production Super	Brave 1
Expediter A Flight	Brave 2

Expediter B Flight	Brave 3
Avionics Flight	Brave 4
Mechanical Flight	Brave 5
Dispatch	Brave Dispatch
Uke 1,2, etc.	Brave Uke 1, 2, etc.