***BY ORDER OF THE COMMANDER***
***932 AIRLIFT WING***

***AIR FORCE INSTRUCTION 21-101 AIR FORCE RESERVE COMMAND SUP***
***932 AIRLIFT WING***
***Supplement***

***17 JULY 2023***

***Maintenance***

***AIRCRAFT AND EQUIPMENT MAINTENANCE MANAGEMENT***

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This supplement implements AFPD 21-1, *Maintenance of Military Materiel*, and extends guidance of Department of the Air Force Instruction (DAFI) 21-101, *Aircraft and Equipment Maintenance Management*, 01 October 2021. This instruction also extends guidance of AFI 21-101 Air Force Reserve Command (AFRC) Supplement (SUP), 12 Aug 2020. This supplement prescribes the 932d Airlift Wing's (AW) guidance and procedures governing aerospace equipment maintenance management and is to be used in conjunction with the basic instruction. This supplement applies to all 932 AW personnel. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Instruction (AFI) 33-322, *Records Management and Information Governance Program*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the DAF Form 847, *Recommendation for Change of Publication;* route DAF Forms 847 from the field through the appropriate functional chain of command.

## *SUMMARY OF CHANGES*

This document supersedes the previous 932d AW Instruction and must be reviewed in its entirety.

2.4.1.1. **(Added)** See **attachment 30** for 932d Radiation protection program.

2.4.19.1. **(Added)** Refer to AFI 21-101_AMCSUP_SCOTTAFBSUP Aircraft and Equipment Maintenance Management for the 932 Airlift Wing's Crash Damaged or Disabled Aircraft Recovery (CDDAR) Program.

2.4.41.1. **(Added)** Refer to 932d QA SharePoint page for FCF-OCF and Check flight Checklist. **https://usaf.dps.mil/sites/932MXG/QA/qaprograms/FCFOCF/Forms/AllItems.aspx?viewpath=%2Fsites%2F932MXG%2FQA%2Fqaprograms%2FFCFOCF%2FForms%2FAllItems%2Easpx**

2.4.44.1. **(Added)** See **attachment 21** for 932d procedure for "repeat", "recur", and "CND discrepancies.

2.4.53.1.1. **(Added)** See **attachment 22** for 932d Aircraft/Equipment Forms Review Process.

2.10.20.2. **(Added)** See **attachment 23** for 932d Aircraft and Equipment Adverse Weather Procedures.

2.10.23.1. **(Added)** The C40 precious metals are returned to the commercial contractor on a one for one basis. Precious Metals Recovery Program not required.

3.2.2.1. **(Added)** See SAFBI 13-204 for hot brakes procedure.

3.9.3.4. **(Added)** See **attachment 24** for Scott AFB LAIRCM Program.

3.11.3.1.1. **(Added)** The 932d MXG procedure for –21 equipment is in the AMXS tool room continuity binder, located in hangar 1.

5.2.1.12.1. **(Added)** See QA SharePoint site for list of call signs. **https://usaf.dps.mil/sites/932MXG/QA/default.aspx**

5.2.2.1.1.2. **(Added)** Off Station Jobs: If the capability does not exist to update ACFT status at the time of status change (e.g., over the weekends, holidays, etc), MOC will update aircraft status within ***three*** hours of the start of the next duty day in coordination with AMXS Production Section.

5.2.2.1.16.1.1. **(Added)** MOC will notify Gp/Sq CC''s immediately, as applicable, for all functional checklist items.

6.2.5.1. **(Added)** See **attachment 27** for 932d Manual Job Control numbers procedure.

6.3.4.2. **(Added)** All functional check lists will route through QA Superintendent annually for approval or whenever there is an update. Coordinate with all applicable sections and QA.

6.7.4.4.2.1. **(Added)** Soft FO will be defined as anything that would not cause damage to the aircraft or SE such as paper products, liquid absorbent (cat litter), leaves, etc. An exception to soft FO would be any type of plastic.

6.7.6.1.3.2. **(Added)** The QA Superintendent or Chief Inspector will update the appropriate PE course code in G081 once the evaluation is validated in LEAP.

6.10.8.1.1. **(Added)** TODO will quarantine all iPads (Individual issue or CTK issue) that were used or in use at the time of the event that caused the mishap/impoundment of the aircraft/equipment. iPads will be locked in the iPad cabinet in the QA Inspector office. No software or tech data updates will be accomplished for the duration of the impoundment. The eTool update history is located in the TODA folder on the MXG Shared Drive. The iPads will return to service at the discretion of the Mishap Investigation Board/Impound Release Authority.

6.12.1.2. **(Added)** Request assistance through the 932 MXG/QA office when the 932 AW FCF pilot/aircrew is not available and contact the SPO.

6.12.2.3.2. **(Added)** Brief aircrew using checklist on QA SharePoint page at the link below. **https://usaf.dps.mil/sites/932MXG/QA/qaprograms/FCFOCF/Forms/AllItems.aspx?viewpath=%2Fsites%2F932MXG%2FQA%2Fqaprograms%2FFCFOCF%2FForms%2FAllItems%2Easpx**

7.3.2. **(Added)** Any serious or unusual incidents shall be reported to squadron Senior Enlisted Leaders (SEL) or Director of Operations (DO). The Impoundment Authority will be selected from the SCR and determine impoundment status based on the criteria in paragraphs **7.3** and **7.5**.

7.4.2.1. **(Added)** The Impoundment Official will run the 932 MXG Impoundment Checklist located on the QA SharePoint page at the link below. **https://usaf.dps.mil/sites/932MXG/QA/qaprograms/Impoundment/Forms/AllItems.aspx**

**7.6. Impoundment Procedures.**

7.6.1.1. **(Added)** The designated Impoundment Official will check out the Dispatchable Impoundment Binder from the 932 MXG/QA Inspector Office.

7.6.2.1. **(Added)** 932 MXG MOC will run the Aircraft Impoundment functional checklist.

7.6.3.6. **(Added)** If an aircraft impoundment is during a paperless A-check or the MIS is directed to be locked, document any discrepancies noted on an AFTO Form 367, Aircraft Discrepancy Gig Sheet, until the MIS is unlocked. Ensure all discrepancies are entered into the MIS regardless of the status of the discrepancy.

7.6.4.2.1. **(Added)** The Contract Office Representative will notify and consult with Contractor Logistics Support when parts are removed from impounded aircraft or equipment that are suspected or determined to be a cause of the discrepancy.

7.6.8.1. **(Added)** When the aircraft is released from Impoundment, the Impound Official will send copies of the Impound Official Checklist, the AFTO Forms 781, Impoundment Release Letter, and all relevant impoundment documents to the 932d MXG QA office and PS&D.

7.6.8.2. **(Added)** If an aircraft impoundment is during a paperless A-check, ensure that an Impoundment Release Letter is signed by the Impoundment Release Authority to release the aircraft from Impoundment. The Impoundment Official will clear the impoundment discrepancy from the MIS with a corrective action referencing the Impoundment Release Letter and Impoundment Release Authority name, title, and employee number.

8.2.1.3. **(Added)** Non-dispatchable CTK's will be labeled "NON-DISPATCHABLE" on the exterior of the box/cabinet/container or designated in TCMAX.

8.2.6.1.1. **(Added)** When it is suspected that the item/tool was lost in the vicinity of an aircraft that has taxied or taken off the Expediter/Production Supervisor or equivalent will notify MOC. The MOC will then notify the appropriate agency who will then contact the aircraft.

8.2.6.1.2. **(Added)** If the aircraft is not airborne, the MOC will request the airplane be brought back to a parking spot and the lost tool investigation will be completed.

8.2.6.1.3. **(Added)** If the airplane is airborne the decision to bring the plane back to the ground will be made by the aircraft commander.

8.2.6.1.4. **(Added)** If the aircraft commander decides not to bring back the airplane the tool investigation will be completed when released to maintenance.

8.2.7.1. **(Added)** 932d MXG will use **table 8.1** for EID assignment.

**Table 8.1. (Added) Equipment Identification Designator.**

| Work Center | EID | Work Center | EID |
|---|---|---|---|
| Hangar 1 Tool Room | T6FLXXXXX | Structural Maint. | T6SMXXXXX |
| Metals Technology | T6MTXXXXX | NDI | T6NDXXXXX |
| AGE | T6RAXXXXX | Fuel System | T6FCXXXXX |

8.2.15.2. **(Added)** Workcenter CTK personnel or the on-duty supervisor will inventory and sign in/out the CTK at the beginning and end of each shift.

8.2.16.1. **(Added)** Access to tool rooms will be limited to essential personnel to meet mission requirements. The workcenter NCOIC will designate, in writing, personnel authorized to access the tool room. The access list will be posted and only personnel on the access list will be allowed unescorted entry in the tool room. The access list should be reviewed/updated annually, or whenever there is a change in personnel.

8.3.5.2. **(Added)** When a tool, item, or consumable has been permanently removed from a CTK, fill in remaining cutout/shadow/silhouette or write REMOVED in permanent marker/paint pen.

8.5.2.3. **(Added)** Inventory all dispatchable and non-dispatchable tools, equipment, tool kits, HAZMAT items, and TOs/eTools assigned to a work center CTK when opening and closing a CTK for the duty day.

8.5.4.4. **(Added)** Users will remove all foreign objects from the CTK prior to turn-in.

8.7.2.1. **(Added)** The requesting work center will ensure all local manufactured tool requests include specified items in **para 6.3.9** of this instruction.

8.9.2.5.1.1.2. **(Added)** If the tool/equipment/item is found, but is inaccessible, the Lost Tool Report is routed through MX Operations Officer/MX SUPT and Maintenance Operations. Forward a copy to the Wing FOD monitor. A copy will be placed in the affected aircraft's jacket file until the aircraft completes its next depot maintenance inspection or the tool is found, whichever occurs first.

8.9.2.6.1.1. **(Added)** If item/tool is not found, MOC will notify the appropriate agencies.

8.9.2.6.2.2. **(Added)** The Wing FOD monitor will maintain copies of the AFRC Form 174, *Lost Tool/Object Report*, until the lost tool is recovered or for a period of one year.

**9.17. Local Manufacture.**

9.17.2.6. **(Added)** The requesting shop will complete 932 MXG LM Form 01 and route to the QA local manufactured tool program manager.

9.17.2.7. **(Added)** When published operating procedures do not exist, the requesting work centers will develop local technical data for equipment operating procedures (if applicable) and submit AFTO 252 or equivalent form to **932MXG.QA@us.af.mil** for publication routing.

9.17.2.8. **(Added)** QA will review the requisition form, inspection criteria, and operating procedures. Publish local inspection/operating work cards based on the inspection/operating criteria provided. Maintain supporting documentation of all approved locally manufactured tools and equipment.

9.17.2.9. **(Added)** Requesting work center will be responsible for ordering the necessary materials through normal supply activity or local purchase.

9.17.2.10. **(Added)** When approved, the applicable CTK section will assign a locally created part number and stock number. CTK section will maintain a log of all locally created part numbers and stock numbers.

9.17.2.11. **(Added)** The requesting shop will create an AFTO Form 350, Reparable Item Processing Tag and transfer to the appropriate work center for manufacturing using the following unique information:

9.17.2.11.1. **(Added)** Repair-Shop is the requesting work center

9.17.2.11.2. **(Added)** WUC is 09000

9.17.2.11.3. **(Added)** Job Control Number (JCN) is from the JCN block assigned to the requesting section

9.17.2.11.4. **(Added)** SRC is RSA

9.17.2.11.5. **(Added)** TM is H

9.17.2.11.6. **(Added)** Part number is issued by the applicable CTK

9.17.2.11.7. **(Added)** Due-in From Maintenance (DIFM) document number is LOCALMFG

9.17.2.12. **(Added)** Standard MIS documentation will be used to clear the AFTO Form 350 upon completion.

11.3.8. **(Added)** MXG Maintenance Supervision will accomplish a review of the SCR semi-annually.

11.3.8.1. **(Added)** The MXG Training Manager will provide and route the SCR for review annually. The signed copy will be maintained in the Training Office.

11.6.1.2. **(Added)** The Production Superintendent or Expediter can authorize the MOC to use the G081 9010 screen to close grounding discrepancies to prevent late takeoffs.

11.6.5.1.2. **(Added)** The Production office will ensure copies are made of the AFTO 781A used during Red Ball Maintenance. The 781A discrepancies will be entered and then cleared from the MIS once it comes back online.

11.8.3.2.1.1. **(Added)** To prevent FOD, aircraft covers will remain installed until one of the following conditions: - approximately 4 hours prior to aircraft take off time - aircraft is towed out of hangar for a maintenance action (note: covers should be reinstalled as soon as possible to prevent FOD)

11.8.3.2.1.2. **(Added)** To prevent FOD, all covers should be installed after recovery procedures are complete, no further maintenance action is required, and the aircraft is considered "parked" IAW AMM task 10-11-01-580-801.

11.8.3.2.2.1. **(Added)** An inlet/exhaust inspection is required after any maintenance is performed inside the aircraft engine inlets other than routine inspections defined in T.O. 00-20-1 (e.g., inspection workcard or PR/BPO/TH). A separate red X will be put in aircraft forms for the inspection per T.O. 00-20-1.

11.8.3.10.1.1. **(Added)** The weekly FOD walk is organized by the 375 AMW FOD/DOP Monitor. In the event that the 375 AMW FOD walk is not completed, the 932 AW FOD/DOP Monitor will ensure a FOD walk is performed on the 932 AW assigned parking spots.

11.8.3.12.4. **(Added)** Flight decks will be checked by the ground crew for foreign objects prior to and after each flight. Aircrew members are responsible for keeping their areas free of foreign objects between and after their flight.

11.8.6. **FOD Investigation and Reporting.**

11.8.6.1.2. **(Added)** When a suspected or confirmed Foreign Object Damage (FOD) on aircraft or equipment is discovered the Production Office and/or shift supervisor will be notified.

11.8.6.1.3. **(Added)** The wing FOD monitor, or QA representative, will investigate the incident and determine if the damage was caused by a Foreign Object (FO). If the damage is determined to be caused by FO, initiate a AFRC Form 42.

11.8.6.1.4. **(Added)** The Production Office will assign personnel to assist in the investigation of the FOD incident (if required) and ensure that blocks 1 thru 4 of the AFRC Form 42 are completed.

11.8.6.1.5. **(Added)** The AFRC Form 42 will be sent to the 932 AW FOD monitor and the FOD monitor will determine FOD reporting IAW **chapter 11**.8 of this instruction.

11.8.6.1.6. **(Added)** For any reportable or non-reportable FOD incident, the AFRC Form 42 will be loaded to the QA SharePoint for historical tracking.

11.9.1.3. **(Added)** A copy of the DOP monitor appointment letter will be sent to 22AF functional manager, 932 AW/CC, 932 AW/CV, 932 OG/CC, and 932 AW/SE.

11.9.3.2.4. **(Added)** MOC will be notified by the Production Office of any suspected or confirmed dropped object. MOC and the Production Office will run the applicable functional checklist and MOC will notify the Wing DOP monitor.

11.9.3.2.5. **(Added)** The Wing DOP monitor and/or QA representative will coordinate with the Production Office to investigate and determine if a Dropped Object occurred.

11.9.3.5. **(Added)** The Pre-Departure Launch Check AMM task 05-05-05 will be performed and signed off prior to each flight to meet DOP requirements.

11.13.10. **(Added)** CANN action process:

11.13.10.1. **(Added)** The Cannibalization Authority (CA) approves the CANN action based off mission requirements and ensures a cannibalization JCN is received from MOC and documented in the AFTO 781 forms and MIS.

11.13.10.2. **(Added)** The Production Office/AGE will log a cannibalization action into the CANN log. The MOC holds the cannibalization log.

11.13.10.3. **(Added)** The responsible shop performs and documents the cannibalization action IAW with T.O. 00-20-1.

11.13.10.4. **(Added)** ETOPS/RVSM requirements MUST BE adhered to if the system affects an ETOPS/RVSM system.

11.13.10.5. **(Added)** The responsible shop completes applicable repair cycle asset tags and turns the part and all applicable hardware into supply.

11.13.10.6. **(Added)** The Cannibalization Authority verifies that all forms and supply documentation are complete and accurate.

11.27.1.1. **(Added)** The 932 MXG Emergency Locator Transmitter database is controlled by the Avionics Manager.

11.35.2. **(Added)** The 932 AMXS will be responsible for the monthly MXG 150 lb flightline fire extinguisher inspections.

GLENN COLLINS, Colonel, USAF
Commander, 932d Airlift Wing

## Attachment 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

***References***

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

AFRCI 36-803, *Air Reserve Technician Time and Attendance Procedures and Audits,* 15 April 2015

***Abbreviations and Acronyms***

**AFB**—Air Force Base

**AFRCI**—Air Force Reserve Command Instruction

**AW**—Airlift Wing

**CBT**—Computer Based Training

**DEAMS**—Defense Enterprise Accounting and Management System

**ET**—Equivalent Training Periods

**MWS**—Maxiflex Work Schedule

**UCI**—Unit Compliance Inspection

## Attachment 21

## MANAGING REPEAT, RECUR, AND CANNOT DUPLICATE DISCREPANCIES (CND)

A21.1.4. All repeat, recurring, and CND discrepancies need to be validated against the ETOPS Significant Systems List identified in TO 1C-40-20-5.

A21.1.4.1. If a discrepancy is identified as an ETOPS significant system the procedures in this guidance and TO 1C-40-20-5 need to be followed.

A21.1.5. Repeat, recur, and CND ETOPS discrepancies. In accordance with 1C-40-20-5 if there are indications of repeat items, adverse trends, or other concerns, the MCC will be consulted to determine the appropriate corrective action which should include coordination with SPO Engineering and the ESC Reliability Group in accordance with the ETOPS Reliability Program (Section 9).

**A21.2. Responsibilities:**

A21.2.1. Production Superintendents (or equivalent) will:

A21.2.1.1. Validate all potential repeat/recur discrepancies.

A21.2.1.2. Closely monitor all troubleshooting and corrective actions related to repeat/recurring/CND discrepancies.

A21.2.1.3. Brief Squadron Commander/Superintendent of all repeat/recurring/CND discrepancies.

A21.2.2. The AFTO 781 forms will be reviewed for the previous 30 days to verify previous corrective actions.

A21.3.4. CND corrective actions and discrepancies identified as repeat/recur will only be cleared by qualified 7- or 9-skill-level technicians identified on the SCR and only after thorough troubleshooting and corrective maintenance actions have occurred. Technicians will provide the Production Superintendent a detailed briefing on the procedures and parts used to accomplish the repair.

## Attachment 22

## AIRCRAFT/EQUIPMENT FORMS REVIEW PROCESS

NOTE

IAW DAFI 21-101 the following individuals have the responsibility to review AFTO 781 series forms, work center MIS data entries for job accuracy and completeness: Section NCOIC/Chief (AFI 21-101 AFRC SUP para 2.12.9) Review transcribed AFTO 781 series forms, work center MIS data entries for the previous day, and all preceding non-duty days, for job accuracy and completeness (IMDS-CDB Screen #100 and GO81 Screen #9154).

**A22.2. Responsibilities:**

A22.2.1. Individual: The individual documenting the AFTO 781 forms and/or inputting the discrepancy/corrective action in the MIS has the overall responsibility for ensuring accurate and complete documentation IAW T.O. 00-20-1. The individual will review their input and ask for assistance if necessary to ensure complete and accurate documentation.

A22.2.2. Section NCOIC/Chief: Prior to the end of the shift the section chief will ensure that the AFTO 781 series forms and the MIS are reviewed for accuracy and complete documentation.

A22.2.3. **Production Office:**

A22.2.3.1. To ensure aircraft/systems and equipment status is correctly reflected in maintenance forms and the MIS the aircraft status sheet will be reviewed at the daily 0800 production meeting. In the event that Global reach is down the GO81 8035 screen will be reviewed at the meeting.

A22.2.3.2. The MDS specific technical data determines if an OCF or FCF is required.

## Attachment 23

## AIRCRAFT AND EQUIPMENT ADVERSE WEATHER PROCEDURES

The following guidance is established IAW AFI 21-101 AFRCSUP paragraph 2.10.20 Establish flight/AMU-specific emergency action procedures to respond to disaster control and severe weather and forward to MOC. Coordinate with Fire Emergency Services, Wing Safety, and the Airfield Operations Flight in developing adverse weather procedures for protecting aircraft and equipment IAW AFI 91-203, Air Force Consolidated Occupational Safety Instruction, AFI 10-2501, Air Force Emergency Management (EM) Program Planning and Operations, and MDS-specific technical data.

**A23.1. General:**

A23.1.1. All 932d MXG leadership will be familiar with SAFBI 13-204 for base adverse weather procedures. The Production Office has primary responsibility to ensure that all aircraft and equipment are protected to the fullest extent possible from adverse weather conditions. When potential adverse weather conditions are identified the Production Office will determine the need to tow the aircraft inside based off mission requirements. AGE shop will move all equipment from the flightline when applicable. **NOTE:** The safety of personnel will take precedence over the protection of aircraft and/or equipment!

A23.1.2. Towing aircraft into Hangar 1 will be conducted with safety as a priority due to the high potential for mishaps with positioning aircraft in close proximity to each other. The tow team supervisor must be familiar with all hangar clearance lines and door opening marks. The tow supervisor will ensure that wing walkers (and tail walkers when backing or making sharp turns) are in place when towing aircraft into or out of the hangar. Any time the outside air temperature requires the use of hangar heaters; the doors should be opened a minimal amount of time to achieve aircraft positioning.

A23.1.3. The normal priority for towing aircraft into hangar 1 is as follows:

A23.1.3.1. Presidential support aircraft.

A23.1.3.2. Severe weather.

A23.1.3.3. Isochronal inspections, A- checks, and refurbishments.

A23.1.3.4. Full aircraft jacking.

A23.1.3.5. Aircraft washes.

A23.1.3.6. Paint touch up operations.

**A23.2. Procedures:**

A23.2.1. When notified of a potential adverse weather condition the Maintenance Operations Center (MOC) will implement the required Functional checklist to notify personnel. Positive notification to the Production Office MUST be determined to ensure actions are taken! If the Production Office cannot be notified MOC personnel will take whatever measures are necessary to contact a member of 932 Leadership of the adverse weather condition.

A23.2.2. The Production office will determine which Functional checklist is required to implement based off of the adverse weather announced (lightning within 5, Tornado, Hail storm, etc.) and begin procedures to protect personnel, aircraft, and equipment.

**NOTE:**
Safety and Technical Orders WILL NOT be compromised when implementing adverse weather procedures

A23.2.3. If it is determined that all aircraft should be towed into hangar 1, the Production Super/Expediter will determine the towing sequence of aircraft into Hangar 1 and establish as many teams as necessary to expeditiously tow the aircraft and equipment.

A23.2.4. Supervisors will ensure that all available personnel assist the Production Office in securing aircraft and equipment.

A23.2.5. Proper towing procedures IAW applicable technical data and Air Force Instructions will be followed.

A23.2.6. When all aircraft and equipment is determined to be protected to the fullest extent possible the Production Super/Expediter will notify MOC that the functional checklist is completed and update aircraft parking locations.

A23.2.7. To ensure personnel safety supervisors on duty will account for all personnel.

## Attachment 24

## LAIRCM PROGRAM

**A24.1. General:** The following local policies are established for safe laser operation in cooperation with the Base Laser Safety Officer, Bioenvironmental Engineering (BE) flight, Public Health (PH), Airfield Management (AM), and Safety (SE).

**A24.2. Responsibilities:**

A24.2.1. Unit Laser Safety Officer (LSO) will:

A24.2.1.1. Ensure that Large Aircraft Infrared Countermeasure (LAIRCM) will only be operated under the direct supervision or control of an experienced, trained operator who shall maintain visual surveillance of condition for safe use and terminate laser emission in the event of equipment malfunction or any other condition of unsafe use.

A24.2.1.2. Reports all suspected laser exposures to the Unit Commander.

A24.2.1.3. Acts as a single point of contact for the unit on laser radiation safety matters and maintains active liaison with BE staff, PH, and SE personnel.

A24.2.1.4. Coordinates laser radiation evaluation activities with command and supervisory personnel. Informs these individuals of the status of all such activities, particularly during investigations of suspected exposures.

A24.2.1.5. Oversees all unit actions needed to minimize laser radiation hazards to personnel.

A24.2.1.6. Conducts initial and annual laser safety training.

A24.2.1.7. Ensures corrective actions are completed expeditiously.

A24.2.2. Workplace Supervisors will:

A24.2.2.1. Assists the Unit Safety Officer (USO) and LSO in maintaining safe and healthy work environment.

A24.2.2.2. Ensures all employees receive required medical surveillance.

A24.2.2.3. Promptly reports to the USO and LSO any suspected laser exposure, any unsafe work condition, and (or) changes in laser use, which could change the hazard assessment.

A24.2.2.4. Ensures any individual suspected of exposure to laser radiation receives prompt medical care.

A24.2.2.5. Ensures visitors receive proper instruction, personal protective equipment (PPE), when required, and permission to visit the area.

A24.2.2.6. Documents that employees are adequately trained regarding the proper use of lasers and the hazards of lasers.

A24.2.3. Individual will:

A24.2.3.1. Ensures proper handling and control of laser and laser beam by following procedures for safe work practices given in this standard, equipment Technical Orders (TOs), manuals, and Operational Instructions (OIs).

A24.2.3.2. Ensures required warning signs, safety devices, and PPE are functional and properly worn or in place before beginning work.

A24.2.3.3. Assists co-workers in understanding and adhering to laser safety policies and procedures.

A24.2.3.4. As soon as possible, reports to the supervisor and the Unit Safety Officer and LSO any suspected laser exposure, any unsafe work condition, and (or) change in laser use that could change the hazard assessment.

A24.2.3.5. Seeks immediate medical attention upon suspected exposure.

A24.2.4. Maintenance Operations Center (MOC) will:

A24.2.4.1. Coordinate with the following base agencies before any operational testing of the LAIRCM laser is about to start:

A24.2.4.1.1. Contact Law Enforcement Desk and Fire Department and advise of restricted emergency vehicle movement around testing location.

A24.2.4.1.2. Contact Civil Engineering Control to advise airfield mowing personnel or, ramp cleaning and snow personnel of restricted area around testing location.

A24.2.4.1.3. Contact Command Post to advise aircraft servicing personnel of the restricted vehicle movement around testing location.

A24.2.4.1.4. Contact Airfield Control Tower to instruct Tower personnel not to use optical enhancing devices (binoculars, telescopes, etc) to view the main parking ramp from spots 3 through 6 or Fox Ramp during testing. Severe eye damage may result from their usage.

A24.2.4.2. Monitor the correct maintenance radio frequency during the LAIRCM laser operational test, and dispatch emergency personnel or equipment if requested.

**A24.3. LAIRCM Laser Safety Precautions:**

A24.3.1. Qualified LAIRCM System Personnel will:

A24.3.1.1. Personnel testing LAIRCM system will adhere to all published laser safety guidelines for safe viewing distance and wear of PPE.

A24.3.1.2. Test or operate LAIRCM only in designated aircraft parking spots on Scott AFB determined by the base Laser Safety Officer and Airfield Manager.

A24.3.1.3. Coordinate with Air Field Management, MOC, and the Production Supervisor prior to any operational testing of the LAIRCM laser.

A24.3.1.4. Complete a 932 MXG Maintenance Risk Assessment Matrix and brief test crew on each member’s specific duties during the test and the associated hazards and risks with testing the system.

A24.3.1.5. Inform the airfield Control Tower when testing begins and when testing is completed via the aircraft’s VHF radio or by hand held maintenance radio using the appropriate frequency. If aircraft parking spot #4 is being utilized, test personnel will advise the tower that the taxiway on the east side of the main ramp will be blocked and request that taxiing aircraft be diverted to Golf Taxiway.

A24.3.1.6. Barricade testing location using orange cones with flashing red lights and laser warning signs to notify personnel and other aircraft of the hazardous area around the aircraft.

A24.3.1.7. Use the appropriate maintenance radio frequency for all radio communication between test crew member's and the airfield Control Tower.

A24.3.1.8. Utilize the minimum LAIRCM System qualified personnel required to conduct the test. The minimum test crew will consist of a Range Safety Officer (RSO), a Laser Test Officer (LTO) and a MEON test equipment operator.

A24.3.1.8.1. The RSO will: Conduct duties related to range safety only and must ensure the test area is clear of non-essential personnel and equipment prior to and during the test. Ensure proper PPE is worn by all Range personnel prior to notifying the LSO that the Range is clear to unsafe the LAIRCM laser. Maintain radio contact with the LTO throughout the entire test and immediately inform the LTO to stop the test if the range area is not safe.

A24.3.1.8.2. The LTO will: Be positioned in the flight deck of the test aircraft and will have overall control and responsibility for the safe use of the aircraft LAIRCM laser and for the safety of all personnel during the entire test. Be in control of the LAIRCM system during the test and will only unsafe the LAIRCM laser after receiving confirmation from the RSO that the testing area is safe and cleared of non-essential personnel and equipment. Immediately safe the LAIRCM laser during testing if he/she receives a range safety issue from the RSO. Put the LAIRCM laser in the safe position when the RSO and MEON test equipment operator transition from one location to another while testing each MWS sensor. Will safe the LAIRCM laser when the last MWS test is completed and no further testing is required. Automatically safe the LAIRCM laser and terminate the test if any team member receives a laser injury or a suspected laser injury. Immediately report all laser injuries or suspected laser injuries to the MOC and to the Unit Laser Safety Officer (LSO). Ensure all injured personnel seek immediate medical assistance.

A24.3.1.8.3. The MEON test equipment operator will: Operate the MEON test equipment safely in accordance with the Portable Maintenance Aid (PMA), MEON equipment operator's manual and applicable Operational Instructions (OIs). Always point the MEON test equipment in a safe direction when turned on. Obtain Range safety clearance from the RSO before turning on and operating the MEON test equipment. At all other times, the MEON test equipment will be turned off.

A24.3.2. Inclement Weather:

A24.3.2.1. During rain or snow, diffuse and specular reflection from the raindrops or snowflakes could be hazardous to personnel located within 1 m of the laser beam path. Water or ice on surfaces or optical components illuminated by laser beams could redirect the laser beam creating hazardous exposures to individuals not exposed to the laser beam during dry weather conditions.

A24.3.2.2. When LAIRCM laser testing is to be accomplished, test should be conducted in dry weather conditions when possible.

**A24.4. LAIRCM Operation Aircraft Parking Spots.**

A24.4.1. The primary LAIRCM Laser Operational testing location will be adjacent to Aircraft Parking Spot #4 on the Main Aircraft Parking Ramp (see below). When this spot is used for testing, main ramp parking spots 2, 3, 5, and 6 will not be utilized for aircraft parking

A24.4.2. The alternate LAIRCM Laser Operational testing location will be near the north Entry Control Point (ECP) of Fox Ramp (see below).

**Figure A24.1. West Edge of Main Ramp (Page 1 of 2).**

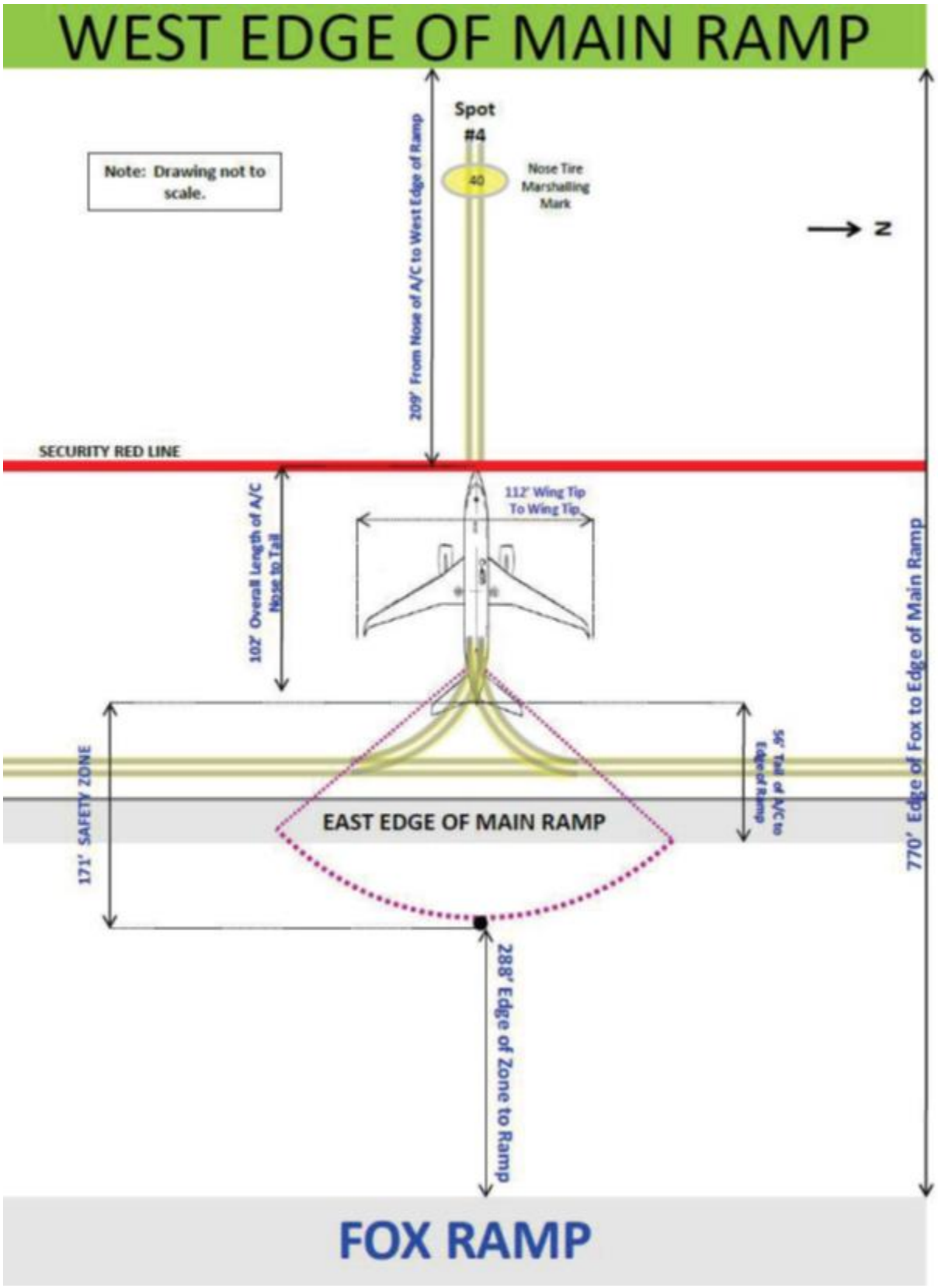
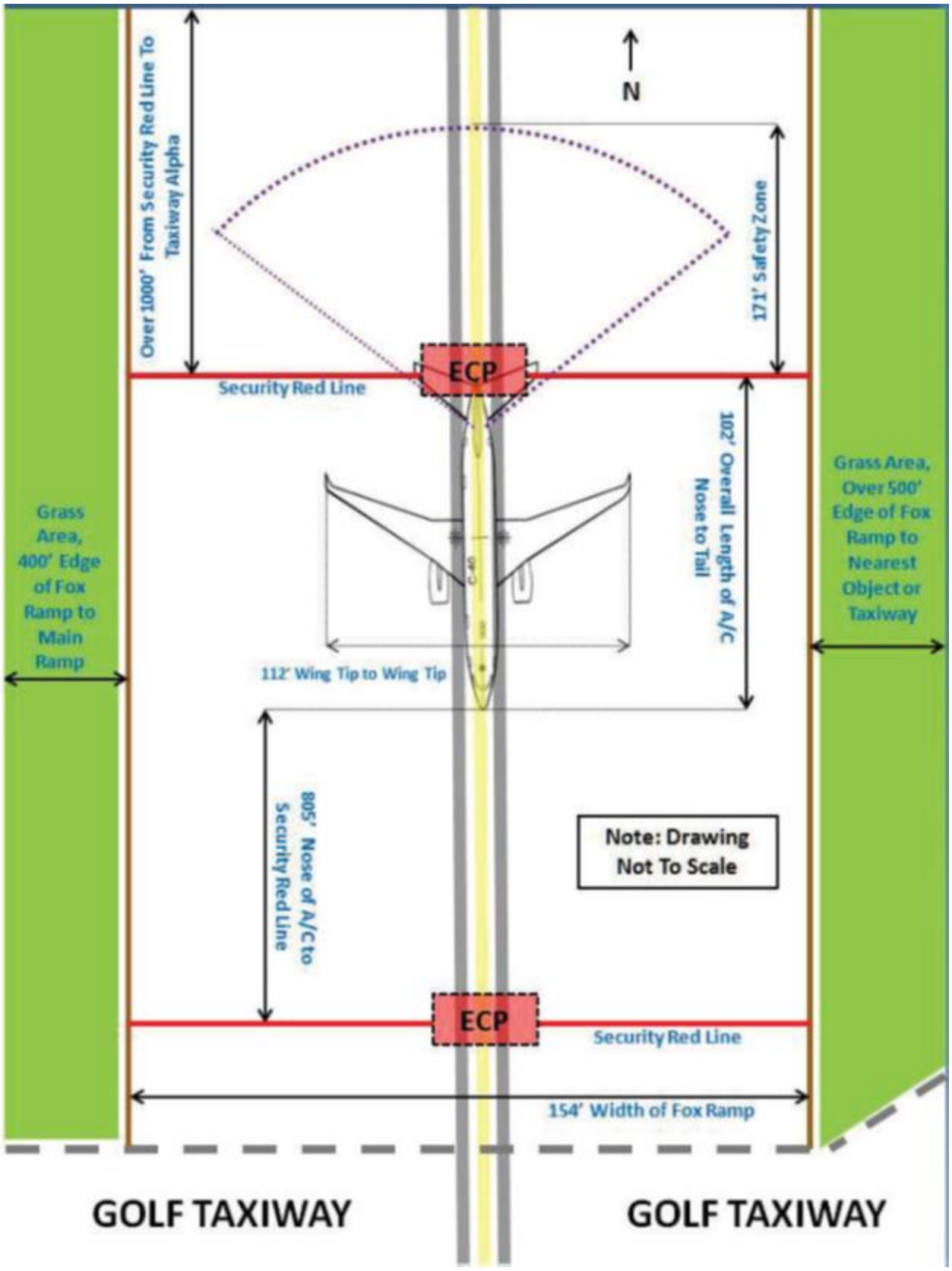


**Figure A24.2. West Edge of Main Ramp (Page 2 of 2).**



## Attachment 27

## MANUAL JOB CONTROL NUMBERS (JCN)

**A24.1. GENERAL.** This guidance assigns responsibility for the use and distribution of Manual Job Control Numbers (JCN) via G081 Restricted JCN List, located under the “Help” button. This guidance applies to all active duty, Air Reserve Technician, Air Force Reserve, civilian employee, and civilian contractor personnel, who manage, fly, service, inspect, maintain, or repair 932 AW aircraft at Scott Air Force Base (AFB) IL.

A24.1.1. Each individual discrepancy on the C-40C aircraft and associated equipment will have a separate JCN regardless of its severity and will be loaded into the G081 Maintenance Information System (MIS) for maintenance data collection.

**A24.2. JCN format:** A JCN consists of nine digits. The first five characters will be the Julian date, such as 15082 for 23 March 2015. The last four characters will be used to identify the job and be

assigned as outlined in this guidance. Automated forms printed from the MIS will follow the format of the MIS.

A24.2.1. Scheduled Aircraft Inspections: For isochronal inspections and A-check inspections the sixth position of the JCN will be an alpha character as designated in TO 00-20-2.

A24.2.2. Scheduled Aerospace Ground Equipment (AGE) Inspections: JCNs for non-powered and powered AGE inspections will be generated by the MIS.

**A24.3. Responsibility of loading JCNs in the MIS:**

A24.3.1. Prime Aircraft Jobs: Maintenance Operations Center (MOC) will be responsible for ensuring that all prime, unscheduled ground-found aircraft jobs (i.e. hydraulic pump leaking) are loaded into the MIS using the appropriately assigned JCN series. All A-Check jobs will flow through the dock coordinator. Aircraft status changes will be updated using the pacing JCN and Estimated Time in Commission (ETIC) as directed by the Flight-line Expeditor or Production Supervisor.

A24.3.2. Sub-Jobs: The performing work-center will be responsible for ensuring that all sub-jobs (i.e. access panel removed for pump change) are loaded into the MIS using a Work center Event Separator (WES) of the prime job control number. If needed these jobs can also be input into the MIS by the MOC.

A24.3.3. Associated Aircraft Maintenance: The performing work-center will be responsible for ensuring that all associated aircraft maintenance actions (i.e. safety locks installed, non-grounding discrepancies found during preflight inspection, etc.) are loaded into the MIS using the appropriately assigned JCN series. If needed these can also be input into the MIS by the MOC.

A24.3.4. Off Station Jobs: If the capability to enter MIS does not exist, the Flying Crew Chief (FCC) will deliver a copy of the forms back to home station at the next available location. MOC will enter the discrepancies during the aircrafts debrief. If the aircraft has corrected discrepancies that were performed off station, debrief will close the JCN's with no MDC taken (G081 screen 9010) pending return to home station. Once returned to home station, the FCC will access the MIS and take MDC on all closed JCN's.

A24.3.5. Scheduled Aircraft Inspections: The JCNs for discrepancies found during the look phase will retain the Julian date of the start of the look phase. The Dock Coordinator will assign JCNs for discrepancies found during scheduled aircraft inspections in accordance with TO 00-20-2 and AFI 21-101 and will be responsible for ensuring that all jobs are loaded into the MIS.

A24.3.6. Aircrew Reported Discrepancies: Debrief will be responsible for ensuring that all aircrew reported discrepancies are loaded into the MIS using the appropriately assigned JCN series.

**A24.4. Procedures:** The following series of JCNs are assigned to the various work-centers for use in G081 and will be utilized as outlined in TO 00-20-2, and this guidance. Refer to the notes at the end of the following table for more detailed instructions.

**Table A24.1. Series of JCNs.**

| NOTE | JCN SERIES | WORKCENTER | PURPOSE |
|---|---|---|---|
| A001 - A999 | AGE OR ISO | AGE or ISO Inspections | |
| E001 – E999 | A-Check | 1st A-Check | |
| F001 – F999 | A-Check | 2nd A-Check | |
| G001 – G999 | A-Check | 3rd A-Check | |
| H001 – H999 | A-Check | 4th A-Check | |
| J001 – J999 | A-Check | 5th A-Check | |
| K001 – K999 | A-Check | 6th A-Check | |
| 1, 2 | 0001 - 0999 | MXG | Aircraft Notes |
| 1 | 1000 - 1599 | PS&D | Aircraft Package Jobs |
| 1 | 1600 - 1699 | PS&D | -6 Inspections / Time Change |
| 1 | 1700 - 3499 | PS&D | Aircraft Package Jobs |
| 1 | 3500 - 3599 | AGE | Unscheduled AGE Jobs |
| 1 | 4000 - 4199 | MOC | Unscheduled Aircraft Jobs |
| 1 | 4450 - 4499 | Engine Shop | Spare Engines |
| 1 | 5200 - 5299 | MOC | Cannibalization Actions |
| 1, 3 | 5300 - 5325 | MOC | Off Shore Support |
| 1, 4 | 5326 - 5330 | MXG | Aircraft Impoundment |
| 1 | 5331 - 5335 | G081 | Component Removed by Different Base |
| 1 | 5350 - 5399 | G081 | |
| 1 | 6400 - 6499 | MOC | Aircraft Debrief Jobs |
| 1 | 6500 - 6899 | MXS | Aircraft Refurbishments |
| 5 | 7500 - 7599 | MXS | C40 Associated Maintenance Jobs |
| 1 | 8100 - 8199 | G081 | C17’s Only |
| 5 | 8500 - 8574 | MXS | C40 Off Station Jobs |
| 1 | 8900 - 8999 | G081 | TACC JCN’s |

| | | | |
|---|---|---|---|
| 1 | 9000 - 9019 | AGE Shop | Maintenance of Shop / Equipment |
| 1 | 9020 - 9039 | Electro / Enviro Shop | Maintenance of Shop / Equipment |
| 1 | 9040 - 9059 | Engine Shop | Maintenance of Shop / Equipment |
| 1 | 9060 - 9079 | Fabrication Shop | Maintenance of Shop / Equipment |
| 1 | 9080 - 9099 | Fuel Shop | Maintenance of Shop / Equipment |
| 1 | 9100 - 9119 | ISO / AR / Tire Shop | Maintenance of Shop / Equipment |
| 1 | 9120 - 9139 | Metals Tech Shop | Maintenance of Shop / Equipment |
| 1 | 9140 - 9159 | NDI Shop | Maintenance of Shop / Equipment |
| 1 | 9160 - 9179 | Sortie Support | Maintenance of Shop / Equipment |
| 1 | 9180 - 9199 | Structural Maint Shop | Maintenance of Shop / Equipment |
| 1 | 9200 – 9209 | Quality Assurance | Local Manufacture |
| 1 | 9210 - 9219 | Quality Assurance | FCF and OCF |
| 1 | 9500 - 9699 | PS&D | TCTO |

Notes:

1. JCN series is designated by G081 and cannot be deviated from

2. 0001-0099 used for identifying the crew chief, assistants, and base aircraft is assigned 0100-0299 used for notes placing the aircraft on certain restrictions 0300-0599 used for System Test Program such as “test equipment installed” 0600-0999 used for informational notes.

3. Use when a part is needed from a home station aircraft for an aircraft broke en route at a nonG081 location. This JCN is loaded by the home station MOC against the broke/off station aircraft. (i.e. a normal Cannibalization Actions discrepancy is assigned to the cannibalization-from aircraft and a 53XX discrepancy is assigned to the cannibalization-for aircraft)

4. Use one JCN per impoundment per aircraft.

5. Use the following aircraft specific JCNs for:

Associated Jobs: Maintenance action performed on an aircraft such as safety locks installed, non-grounding discrepancies found during a preflight inspection, etc. Do not use when a WES is more appropriate.

| ACFT | ASSOCIATED JOBS | OFF STATION JOBS | |
|---|---|---|---|
| 05-0730 | 7500 - 7599 | 8500 - 8599 | |
| 05-0932 | 7500 - 7599 | 8500 - 8599 | |
| 05-4613 | 7500 - 7599 | 8500 - 8599 | |
| 09-0540 | 7500 - 7599 | 8500 - 8599 | |

## Attachment 28

## PROCESS TO REVIEW & MANAGE LOCALLY DEVELOPED PRODUCTS

A28.1.1. IAW AFI 21-101 AFCR SUP 1 the following procedures are established to ensure all locally developed products are reviewed and managed IAW TO 00-5-1 and MAJCOM supplements.

A28.1.2. The TODO will use the enhanced technical information management system program (ETIMS) to identify technical orders which provide source reference data for all locally developed publications [e.g. local checklists (LCL), Operating Instructions (OI), 932 AFI supplements, and Job Standards (JST)].

A28.1.3. Every Wednesday during the e-tool update process the TODO will review the source data required to ensure local developed products are current (ETIMS only).

A28.1.4. For AFI updates/changes notification the TODO will subscribe to e-publications update notification system. Once notified of a change the TODO will review products affected and send out an email to notify leadership and the SME of the change and the requirement to update the product.

A28.1.5. When recording a technical order change in the ETIMS program the TODO will refer to the technical order remarks block of the T.O. increment page. The remarks block will indicate whether the technical order is source reference data for any locally produced technical data.

A28.1.6. If a technical order which is receiving a change has been used as source reference the TODO will need to compare the local check list to the technical order change to determine if the technical order change affects the locally produced technical data or operating instruction.

A28.1.7. If the technical order change has no effect on the locally produced technical data or instruction, no further action is required.

A28.1.8. When the locally produced technical data has been affected by a source data reference change the local data must be changed to reflect the current source technical order content. Quality Assurance will issue a change to the local technical data. Local technical orders should be amended within 10 days when a source data change affects the content of locally produced technical data. If the change involves safety, the local technical data should be amended immediately.

A28.1.9. Once the change has been made to the local technical data the TODO will need to stamp and record the change into the ETIMS program. The TODO will also make enough copies of the change to ensure that every account that is in possession of the local technical data receives a change.

A28.1.10. The local technical data change will be treated like any other technical order change and should be filed within 5 days of receipt.

A28.1.11. (Added 932-MXG) When commercial data updates are received from the contractor the TODO will review local developed products for possible updates and post as necessary.

A28.1.12. (Added 932-MXG) If a change affects safety of aircraft, equipment, or personnel the TODO will initiate an urgent action change and immediately notify all TODAs to pull the local develop product from circulation until the change is posted.

A28.1.13. (Added 932-MXG) When source data has changed the TODO will update the local developed product within 3 days and notify all TODAs that are affected by email that a change has occurred.

A28.1.14. (Added 932-MXG) IAW TO 00-5-1 the TODAs will post the change within 5 work days of the date posted.

**Figure A28.1. EXAMPLE MEMORANDUM FOR 932ND MXG/MXQ.**

Date

MEMORANDUM FOR 932nd MXG/MXQ

FROM: <Your section here>

SUBJECT: Locally Manufactured, Modified and Developed Tools Request

Request the following tool be approved for inclusion and approval into the locally manufactured, modified and developed tool program:

Tool

Size of Tool

How Tool is Used <specific description of how item is used>

Inspection Requirement <e.g. TO 34-1-3, paragraph 4(f), TO 32-1-101, etc…>

Develop and submit to TODO for publication, local tech data for equipment operating procedures

## Attachment 30

## RADIATION SAFETY PROGRAM

**A30.1. General:** The purpose of this guidance is to establish safe use of x-ray equipment for industrial radiographic purposes and emergency procedures in case of unauthorized entries or an overexposure occurs while the tube head is energized during any x-ray operations.

**A30.2. Responsibilities:** The 932 MXG/CC has the overall responsibility; however, the Non-Destructive Inspection (NDI) shop chief has the primary duty of ensuring the procedures in this operating instruction are followed.

**A30.3. X-Ray Inspection Procedures:**

A30.3.1. Shielded Radiation Inspection Procedures:

A30.3.1.1. All shielded radiographic operations will be conducted within the exposure room in building 450.

A30.3.1.2. Building 450, NDI lab entrance doors will be locked and a radiation warning sign will be displayed to prevent unqualified personnel from entering area during equipment warm-up or exposures.

A30.3.1. 3 A complete x-ray unit warm-up will be performed in accordance with the applicable TO for the x- ray unit being operated. Tube head inspections and interlock checks will be accomplished in accordance with applicable technical data.

A30.3.2. **Unshielded Radiation Inspection Procedures:**

A30.3.2.1. All unshielded radiographic operations will be conducted within Hangar 1 (bldg. 433).

A30.3.2.2. The aircraft to be inspected will be parked in the Aircraft area (Northwest) of Hangar 1. This is the only area surveyed and authorized for radiographic operations without prior approval of Bioenvironmental Engineering Flight (BE).

A30.3.2.3. Door guards will be posted at all doors that allow access to the restricted area of Hangar 1 in order to maintain positive control over the radiation area.

A30.3.2.4. Establishment of restricted area will be set up IAW TO 33B-1-1. Radiation warning signs will be attached to the barrier as required. The barrier can then be adjusted accordingly for the type of x-ray inspection being performed.

A30.3.2.5. The NDI personnel operating the x-ray unit and the radiation monitors and assistants will use whistles, headsets, or other suitable communication devices to signal for emergency shut down and all clear. If whistles or other noise making devices are used, the following signals will be used:

A30.3.2.5.1. One continuous blast for emergency shutdown.

A30.3.2.5.2. One short blast for all clear, begin x-ray.

A30.3.2.5.3. Two short blasts when x-ray is complete.

A30.3.2.6. Prior to starting and upon completion of x-ray operations NDI will notify Maintenance Operations Center (MOC).

A30.3.2.7. After receiving notification from NDI, MOC will initiate unshielded x-ray operation Quick Reaction Checklist (QRC).

**A30.4. Emergency Procedures:** When an overexposure is suspected, an emergency situation shall be considered to exist and the following actions shall be taken:

A30.4.1. NDI will:

A30.4.1.1. Immediately cease all X-ray operations.

A30.4.1.2. Contact MOC and NDI Laboratory Supervisor to advise them that the inspection was stopped because of a possible overexposure and NDI overexposure procedures have been implemented.

A30.4.1.3. MOC Will:

A30.4.1.3.1. Implement the Personnel Accident /Injury Checklist.

A30.4.1.3.2. Advise medical personnel of the suspected overexposure and that the individual suspected of being overexposed is en route for treatment or observation.

A30.4.1.4. NDI Laboratory Supervisor will:

A30.4.1.4.1. Follow all actions for emergency situations and suspected exposures above limits procedures outlined in TO 33B-1-1, Paragraph 6.8.5.6.2.

A30.4.1.4.2. Coordinate with responding emergency personnel to learn which medical facility individual suspected of overexposure will be taken.

A30.4.1.4.3. Contact base RSO by telephone at 618-402-7608 to inform them of the suspected overexposure and which medical facility the individual was taken.

A30.4.1.4.4. Completely fill out AFTO Form 125, *Industrial Radiography Utilization Log*.