BY ORDER OF THE COMMANDER
437TH AIRLIFT WING (AMC)

DEPARTMENT OF THE AIR FORCE
INSTRUCTION 21-101

AIR MOBILITY COMMAND
Supplement

437TH AIRLIFT WING
Supplement

3 SEPTEMBER 2025

Incorporating Change 1, 20 May 2026
Corrective Action, 9 June 2026
Maintenance

AIRCRAFT AND EQUIPMENT MAINTENANCE MANAGEMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publication is available for downloading or ordering on the e-Publishing website at www.e-Publishing.af.mil.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: 437 MXG/QA

Certified by: 437 AW/CC
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Supersedes: DAFI21-101_AMCSUP_437AWSUP, 29 January 2024

Pages: 52

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SUMMARY OF CHANGES

This interim change revises DAFI21-101_AMCSUP_437AWSUP by correcting links to the MXG QA SharePoint site, updating the acronym "JBC" to "JB CHS", and removing the 6-hour time limit for AGE in wingtip boxes after aircraft departure. It rewords the statement regarding rolled-up electric generators cord from a "will" to a "should" statement, clarifies who is allowed to move powered AGE to certain locations, and rewords the AGE red flag usage from a "will" to a "should" statement. The revision also adjusts the notification requirement from "and" to "or", changes the equipment configuration requirement to apply only when leaving the spot and adds exclusion for generator power cords. Finally, it removes the requirement for protective covers during winds of 20-30 knots, removes the 15-minute limitation for hangar door opening/closing during adverse weather procedures, and changes potential.

1.7.2.1. **(Added)** All base agencies dispatched to aircraft runway, taxiway, parking apron, or maintenance areas will adhere to proper cyber hygiene by ensuring all annual computer security training remains current. Additionally, personnel will not use mission related portable electronic devices for anything other than their mission related purpose.

1.7.2.1.4. **(Added)** Maintenance Information System (MIS) (FMXC2) Access

1.7.2.1.4.1. **(Added)** Personnel requiring access to the FMXC2 system will fill out a DD Form 2875, *System Authorization Access Request (SAAR)*, and then email a digitally signed DD Form 2875 to their supervisor to digitally sign. Their supervisor will then forward the form to their squadron security manager, which he/she will then forward to the FMXC2 Office.

1.7.2.1.4.2. **(Added)** Once personnel establish their FMXC2 user ID passwords, they will have access to the programs assigned to their shop. Personnel who need access to different programs will contact the Maintenance Operations Analysis (MXOA) office at DSN 673-5970/2330. Flight training monitors and unit training managers must have written authorization from the Chief of Maintenance Training to update training screens. The authorization letter will be forwarded to the MXOA office for updates.

1.13.1.1. **(Added)** Accident prevention begins before any work is accomplished and many accidents can be avoided by taking the time to properly prepare for each task. The back of each "Knock It Off" card lists a few important questions that should be asked and answered before accomplishing any work. Supervisors will ensure that any problems are addressed and corrected prior to the start of any activity.

1.13.1.2. **(Added)** Personnel performing, supervising, evaluating, or supporting logistics actions should carry a "Knock It Off" card (**Attachment 15**) on their person at all times. Cards will be issued, as necessary, by commanders, supervisors, and unit safety representatives.

1.13.3. **(Added)** Hearing Protection

1.13.3.1. **(Added)** Only hearing Personal Protective Equipment (PPE) authorized by Bioenvironmental Engineering will be utilized.

1.13.3.2. **(Added)** Hearing protection must be worn within cordons regardless of duration of exposure. See **Table 1.1**.

Table 1.1. (Added) Hearing Protection.

Noise Source	dB(A)	Single Hearing Protection	Double Hearing Protection
Jacking Manifold	88	5ft	Not Required
Heater Cart (NGH)	93	10ft	Not Required
Light Cart (FL-1D)	76	Not Required	Not Required
Pneumatic Starter (A/M32A-95)	104	150ft	25ft
Hydraulic Test Stand	97	25ft	Not Required
Maintenance Lift/Magic Carpet (Split Deck)	92	10ft	Not Required
Medium Pressure Compressor (MC7)	89	2ft	Not Required
Lowpacks (7MC-2A)	93	10ft	Not Required
Tow Vehicle	87	2ft	Not Required
Power Cart (A/M32A-86)	96	25ft	Not Required
A/C Cart (MA-3D)	100	25ft	Not Required
APU	115	100ft	40ft
Crane	88	2ft	Not Required
Tie Down Vehicle	90	5ft	Not Required
Essex Generator (B809)	102	20ft	Not Required
Nitrogen Cart (SGNSC)	117	40ft	Not Required
TMAC	99	90ft	Not Required
Genie	76	Not Required	Not Required
K-Loader (25K Halverson)	85	Not Required	Not Required
60 Tonner	95	25ft	Not Required
Power MHE	93	10ft	Not Required
Aircraft Hangar Doors	86	25ft	Not Required
Power Tools/Shop Equipment/Other	Consult Shop Survey	Consult Shop Survey	Consult Shop Survey

1.13.3.3. **(Added)** MXG personnel should carry a hearing protection guideline card to easily identify when to wear the appropriate level of hearing protection. See **Attachment 16**.

1.13.4. **(Added)** Mishap Notification & Procedures:

1.13.4.1. **(Added)** Supervisors must ensure all personnel understand their responsibility to report mishaps promptly and accurately. Timely investigation of mishaps depends on prompt notification.

1.13.4.2. **(Added)** Mishaps are defined as an unplanned or unsought event, or series of events, resulting in deaths, injuries, occupational illnesses, or damage to or loss of equipment or property.

1.13.4.3. **(Added)** On-duty mishaps and damage to any property as a result of military operations must be reported to Maintenance Operations Center (MOC) who will notify the MXG/CC when personnel are injured on duty or there is damage to DoD property. The unit safety representative will ensure a preliminary AFTO Form 978, *Ground Mishap Report,* is completed and forwarded to the 437 Environmental, Safety, and Occupational Health (ESOH) Manager NLT COB of the first duty day following an on or off-duty mishap. After approval from the 437 ESOH Manager, the unit safety representative will forward to 628 ABW Safety office. If the mishap involves injury to civilian personnel, the supervisor may be required to submit a Form CA-1 or Form CA-16 to the Base Civilian Personnel Office.

1.13.5. **(Added)** Head Protection

1.13.5.1. **(Added)** Bump caps should be worn when working in the areas of the nose and main landing gear. Additionally, bump caps may be worn while performing maintenance or aerial port actions within the Mission Generation Area.

1.13.5.2. **(Added)** Bump caps will be a two-piece set, to include a squadron-issued hat and an approved protective liner. Consult the MXG ESOH manager for approved protective liners.

1.13.6. **(Added)** All unit issued PPE (to include OCP boonie (campaign/floppy hat) may be worn in all outdoor areas of aircraft and equipment maintenance as conditions dictate.

1.13.6.1. **(Added)** Hats/berets will not be worn on the Joint Base Charleston flightline. Unit issued hats with protective inserts (Bump Caps) and OCP boonie (campaign/floppy) hats are to be considered PPE and are allowed to be worn on the flightline. Bump caps/OCP boonie hats will not be worn around operating aircraft engine intakes/exhausts or taxiing aircraft. Personnel will ensure these items are secured when wind conditions are present. Bump caps/OCP boonie hats will not be worn in Phase II or higher wind conditions. When worn, OCP boonie hats must be secured with chin strap to mitigate potential sources of FOD. Exception: During the cold weather season, the wear of a thick knit hat, “beanie” (skullcap) or appropriate cold weather headwear is authorized. Note: Aircraft specific technical data and DAFMAN 91-203 *Air Force Occupational Safety, Fire, and Health Standards* must be followed.

1.15.3.1. **(Added)** In the event classified information is to be utilized on the aircraft by the aircrew, they will notify all personnel in the immediate area. Maintenance Group personnel will remove all E-tool laptops and Infrared (IR) or Radio Frequency (RF) communication devices (e.g., cell phones) from the flight deck. Equipment must be no closer than the cargo compartment (e.g., bottom of the ladder) of the Mission Design Series (MDS) until cleared by the aircrew to return to Maintenance Group activities in the flight deck/relief crew compartment. If Maintenance Group activity is required to occur simultaneously during communication of classified information, Maintenance Group personnel will utilize authorized eTools IAW **Paragraph 1.7.3.12** of this instruction.

1.15.3.2. **(Added)** When requested, Maintenance Group personnel will remove the equipment from the area and notify the Production Superintendent to ensure any resulting maintenance or logistics delays are documented appropriately on the sequence of events log in the MOC.

2.4.3.15. **(Added)** For repeat/recur and CND discrepancies, a 180-day review of the MIS will be performed prior to being cleared by a qualified 7-level.

2.4.3.45. **(Added)** Root Cause Analysis categories are defined in the MSEP contract.

2.4.3.45.1. **(Added)** Units will publish the findings of the root cause analysis (RCA), and the corrective action plan (CAP) to the RCA Tracker located on the QA SharePoint Site: **https://usaf.dps.mil/sites/JB-CHS/437AW/437MXG/QA/SitePages/Home.aspx**

2.8.18. **(Added)** Establish unit Foreign Object Damage (FOD) program IAW **Chapter 11** of this instruction.

2.8.18.1. **(Added)** Appoint a primary and alternate FOD monitor for their respective AOR and provide a letter to the Wing FOD Prevention Program Office (437 MXG/QA).

2.8.18.2. **(Added)** Will ensure root cause, corrective action determination, and get-well dates are provided to QA Supervision for all observations (UCR, TDV, DSV), and should also be provided for failed evaluations (PE, SI, QVI).

2.12.27.8. **(Added)** If government furnished equipment (GFE) is required, owning work center will submit an AF Form 2005, *Issue Turn-In Request,* to TCTO kit managers (Logistics Readiness Squadron).

3.6.12. **(Added)** Ensure unattended aircraft are configured with all exposed manually actuated windows, and hatches are closed.

3.7.15. **(Added)** Be familiar with mandatory impoundment situations and impoundment procedures outlined in **Chapter 7** of this instruction.

4.5.2.13. **(Added)** Approved AGE sub-pools are identified on the MXG parking plan.

4.5.2.15. **(Added)** Perform all investigations of suspected AGE misuse/abuse. Report events to 437 MXS DO/SUPT for corrective action and to notify using organization.

4.8.1.1.1. **(Added)** Allow manufacture of procurable items as an exception to standard procedure for mission-essential needs when authorized by proper authority.

4.8.1.1.2. **(Added)** Perform annual review of local instruction for procedures covering items coded local manufacture or whenever requirements or processes change significantly to warrant implementation of new procedures.

4.9.4.6. **(Added)** Items that have been removed during the inspection process will be tagged upon removal and stored in a designated area. All items will be inspected for serviceability immediately upon removal from aircraft and prior to installation. Store items awaiting installation in accordance with **Chapter 9** of this instruction.

4.9.4.7. **(Added)** Ensure unattended aircraft (when outdoors) are configured with all exposed manually actuated windows and hatches are closed.

4.9.4.8. **(Added)** Be responsible for assigning JCNs during HSC inspections. See **Attachment 14** for the locally approved JCN allocations.

5.2.4.12. **(Added)** 437th and 315th Maintenance Group radio call signs can be found in **Attachment 12** of this instruction.

5.2.5.1.15.2. **(Added)** Track all engine run operations and document engine run proficiency by individual employee number. Personnel overdue the 120-day proficiency requirement will not be permitted to operate engines until re-qualified.

5.2.5.1.15.3. **(Added)** Notify the Emergency Control Center (ECC) when an aircraft is loaded or unloaded with explosives. Provide aircraft serial number, parking location, and the types of explosives involved. Provide ECC with operation start and stop times.

5.2.5.1.16. **(Added)** Functional checklist designations will be maintained by the MOC. Ensure functional checklists are developed for all functional areas and applicable actions are identified. Units will assign a POC for functional areas, in writing, to develop and maintain functional checklists, and forward a copy to the MOC.

5.2.2.1.16.9. **(Added)** MOC will also notify wing safety office, QA, and wing FOD monitor of bird strikes, and dropped objects.

5.2.8.3.4.7.1. **(Added)** A mass email will be sent to all users for the scheduled downtime and when it will be expected to be restored. Users will be notified by email of system restoration.

5.2.8.3.4.7.2. **(Added)** MXOA will contact the DECC at Tinker AFB or HQ AMC when unscheduled MIS outages occur, to inquire on the estimated time of repair. A mass email will be distributed to notify users of system degradation and restoration.

5.2.8.3.4.12. **(Added)** MXOA will control access to the training, MOC, debrief, aircraft statusing, and configuration management associated screens/programs. Due to the impact these screens can have on the mission, access to users will only be granted directly by a FMXC2 program manager.

6.2.9.1. **(Added)** All approved local developed products will be assigned a unique identifier and date of currency by QA.

6.3.5.3. **(Added)** Units will email proposed JST changes to **437MXGQAInspectors@us.af.mil**.

6.3.9.2. **(Added)** Requests for locally manufactured (LM) aircraft maintenance tools, not already specified in technical data, will be coordinated through the MXG/QA office. The MXG/CC, or designated representative, are the approval authority for all locally manufactured tools. Process LM requests IAW **Paragraphs 8.7.1**. & 9.17.1 of this instruction.

6.4.16. Ensure additional maintenance requirements (FOD Walk areas, AGE sub-pool, and aircraft jacking) are included on **Attachment 19**, *JB CHS Airfield Parking Plan* . Contact 628 CES/CENME for updates and parking plan map printing. Additionally, **Attachment 19**, *JB CHS Airfield Parking Plan* is located on the Maintenance Group QA SharePoint site: **https://usaf.dps.mil/teams/437AW/437MXG/QA/SitePages/Quality-Assurance.aspx**

6.7.1. A copy of the signed MSEP contract will be published on the Maintenance Group QA SharePoint site: **https://usaf.dps.mil/teams/437AW/437MXG/QA/SitePages/Quality-Assurance.aspx**

6.10.4. **(Added)** TODO will assign a control number.

6.10.4.2. **(Added)** Anyone discovering an error or any other cause for rescission will contact the MXG/QA office at **437MXGQAInspectors@us.af.mil**.

6.10.4.2.1. **(Added)** The TODO will accomplish an annual List of Effective (LEP) check of all locally produced technical data, annotate on LEP page and verify currency of all source material listed on title page.

6.10.8.1. **(Added)** After mishap notification, Pro Super will ensure all eTools at mishap location(s) are isolated until QA has taken custodial responsibility of eTools. QA will maintain custody until determination is made as to which eTool was used.

6.10.8.2. **(Added)** Mishap eTools will be stored in a way to limit accessibility and prevent further tampering. CTK custodians will be notified by QA upon receipt of the confiscated eTool for accountability.

6.5.6.1. **(Added)** Aircraft TO (G-file) Use and Accountability.

6.5.6.1.1. **(Added)** Policy. The aircraft TO file (G-file) will be used for off-station and en route tasks only. Aircraft G-files will not be swapped between aircraft without coordination of AMXS Production Superintendents, Expediters, and Technical Order Distribution Account (TODA) office.

6.5.6.1.2. **(Added)** Procedures:

6.5.6.1.2.1. **(Added)** AMXS TODA manages, stores, and posts changes to all aircraft G-files.

6.5.6.1.2.2. **(Added)** During preparation for mission departure/alert status, aircraft G-files will be signed out by AMXS TODA and then placed on appropriate aircraft by owning AMU.

6.5.6.12.3. **(Added)** Production superintendents will determine which missions will require G-files.

6.5.6.12.4. **(Added)** Upon arrival to home station or removal from alert status, aircraft G-files will be removed and reviewed for completeness.

6.5.6.12.5. **(Added)** When a G-file is installed on an aircraft a diagonal "/" discrepancy will be annotated in aircraft forms binder, AFTO Form 781A, *Maintenance Discrepancy and Work Document*, and MIS; discrepancy will read "G-file installed (insert number of TOs) installed.

6.5.6.12.6. **(Added)** AMXS TODA section will track the location of their G-files on aircraft using TCMAX.

6.11. (Added) One-Time Inspections (OTI) program. Anyone may submit a local OTI request to 437MXG/MXQ. Email the request to **437MXGQAInspectors@us.af.mil**

6.11.1. **(Added)** Contact QA for format of local OTI and coordinate the processing and review.

6.11.2. **(Added)** Route through squadron and QA Supervision with technical information initial review.

6.11.3. **(Added)** Contact QA TODO for local OTI number and data code.

6.11.4. **(Added)** QA TODO will:

6.11.4.1. **(Added)** Assign OTI number (e.g., 1X-INSP-YYXX: YY=two-digit year, XX=two-digit sequence number).

6.11.4.2. **(Added)** Assign data code (e.g., L437YXX: L=local OTI 437 = Charleston AFB, Y = year of publication, XX = two-digit sequence number).

6.11.4.3. **(Added)** Assign a TCTO category of 1 - Immediate, 2 - Urgent, or 3 - Routine.

6.11.4.4. **(Added)** Coordinate local OTI with appropriate supervision section(s) and QA supervision for final review before presentation to the MXG/CC for approval.

6.11.4.5. **(Added)** PS&D will assign JCNs as applicable.

6.11.4.6. **(Added)** Technical Order Distribution Office (437MXG/MXQ) will date stamp approved local OTIs, post the original copy in local OTI binder, and forward one copy to Office of Primary Responsibility (OPR) and PS&D.

6.11.4.7. **(Added)** MXG/QA may waive AF IMT 2410, *Inspection/TCTO Planning Checklist* meeting if previously coordinated.

6.12.2.4. **(Added)** 437 MXG Form 3, *FCF, OCF, HST Checklist*, will be used and can be found on ETIMS.

6.12.2.5.2. **(Added)** FCF program monitor will send a digital copy of AF Information Management Tool (IMT) 4327A, Crew Flight Authorization (FA), and MXG Form 3 FCF checklist to Plans, Scheduling, and Documentation (PS&D) for historical documentation.

6.12.7. **(Added)** Aircraft Maintenance Squadron will:

6.12.7.1. **(Added)** Configure the aircraft IAW AFMAN 11-2C-17 Volume 3 Addenda A, *C-17 Configuration and MSN Planning.*

6.12.7.2. **(Added)** Apply for FCF aircrew using an expedited MXG Maintenance Assistance Request when an FCF is required, refer to TO 00-25-107, *MAINTENANCE ASSISTANCE* .

6.12.7.3. **(Added)** Do not schedule other checks to coincide with FCFs.

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

6.12.8.1. **(Added)** Coordinate on all Maintenance Assistance requests and make appropriate possession code changes in MIS, refer to TO 00-25-107.

6.12.8.2. **(Added)** Schedule date/time/location for an FCF pre-briefing. Notify all attendees to include FCF Program Manager, Pro Super, technicians, aircrew and OG/OGV representatives, as required.

6.12.9. **(Added)** MOC will:

6.12.9.1. **(Added)** Notify QA when the FCF crew has arrived at the aircraft. QA will also be notified upon return of the aircraft or if the FCF results in an abort, IFE, etc.

6.14.1.2. **(Added)** 437 MXG Form 3 will be used and can be found on ETIMS.

6.15.1.1. **(Added)** Maintain supplemental handbooks onboard each assigned aircraft. The book will be stored in the aircraft forms/W&B records drawer located on the sidewall panel at right fuselage station 380.

6.15.3.2.1. **(Added)** Maintain primary handbook master files in the QA office including all historical W&B documents for each aircraft.

6.15.3.3. **(Added)** P&S will notify the W&B program manager if a TCTO or modification requires W&B data changes.

6.15.5. **(Added)** Owning Aircraft Maintenance Unit (AMU) will:

6.15.5.1. **(Added)** Ensure that prior to PDM input, depot prep package in FMXC2 is loaded to the aircraft. Consider changing possession code to “BT” as authorized.

6.15.5.1.1. **(Added)** Complete depot preparations IAW TO 1C-17A-5-2, *Loading Data* utilizing 437 MXG Form 2, *C-17 Depot Prep Checklist*. The Depot Prep Checklist will be kept inside aircraft forms while conducting PDM input preparations/returns IAW **paragraph 17.1.8**.

6.15.5.2. **(Added)** Notify QA IAW T.O. 1-1B-50 *Joint Service Technical Manual Organizational, Intermediate and Depot Maintenance Aircraft Weight and Balance* whenever an item is removed or installed affecting aircraft basic weight (greater than a 5lb net change) or center of gravity (CG). Mission configuration equipment, crew support equipment, and similar items listed in AFMAN 11-2C-17 Volume 3 Addenda A, Table 2.2., do not require updates. Components or equipment removed and installed during maintenance do not require a recalculation unless the aircraft is scheduled to fly prior to installation.

6.15.5.2.1. **(Added)** Enter a RED X in AFTO Form 781A, for a recalculation of basic weight and CG (Chart C update). Example: "Recalculation of aircraft basic weight and CG required due to (reason for update)."

6.15.5.3. **(Added)** At the discretion of the losing/gaining weight and balance authority, inventory all aircraft equipment IAW TO 1C-17A-5-1 upon permanent transfer to/from another base or temporarily transferred and changing W&B managers. All equipment must be onboard and stowed in its proper location. Notify QA upon completion to perform a "Chart A" inventory and ensure all W&B documents and calculations are accurate. "Chart A" inventory is required no later than (NLT) 1 day prior to aircraft departure and before first flight after return from depot/transfer from another base.

6.15.6. **(Added)** MXO Plans, Scheduling, and Documentation will:

6.15.6.1. **(Added)** Ensure aircraft weigh is scheduled in conjunction with PDM. If PDM and W&B dates do not align, request an extension. Schedule full wash (including underfloor bilge area prior to weigh. Aircraft flown prior to W&B completion will require another full wash.

6.15.6.2. **(Added)** Coordinate with QA and Depot W&B manager NLT 72 hours prior to any aircraft transfer to Depot.

7.2.1.2. **(Added)** QA Superintendent or Chief Inspector will facilitate Impound Official training courses quarterly or as required.

7.3.1.3. MXG/CC, CD, or designated representative will notify the owning MXG when a non-possessed aircraft is impounded at JB CHS.

7.4.4. **(Added)** Work closely with AW/SE investigation officer to ensure timely repairs while preserving valuable evidence. AW/SE will determine whether formal investigation is required. Do not alter, disrupt, tear down, or test parts until cleared by AW/SE investigation officer.

7.6.1. **(Added)** Place impoundment information into AFTO Form 781A, add any additional information as required. Install 437 MXG Form 5, *Impoundment Alert Page* and 437 MXG Form 6, *Impound Log*, in front of forms binder. Make the following entry for equipment forms: "Equipment Impounded by IA, state reason for impoundment and add 437 MXG Form 5.

7.6.2.1. **(Added)** For transient aircraft, MOC will coordinate with home station MOC and notify 618 AOC/GADM.

7.6.3. **(Added)** Impoundment Official will utilize 437 MXG Form 7, *Impound Checklist*, to guide the sequence of actions, determine route cause, and prevent reoccurrence.

7.6.3.6. **(Added)** Review historical record(s) and analysis data to identify any contributing discrepancies.

7.6.5.2. **(Added)** Impoundment Officials will log all events, data and related information, combine investigation results. This data will accompany impounded forms to the Impoundment Release Authority to inform them of significant findings.

7.6.6.1. **(Added)** Impoundment Official will provide all impoundment findings and aircraft forms for QA review. QA will review for adequate corrective actions and completeness of required data prior to Impoundment Release.

7.6.6.2. **(Added)** Impoundment Official will provide QA with impoundment final report within 7 calendar days of aircraft or equipment release.

7.6.11. **(Added)** AMXS Debrief Section will:

7.6.11.1. **(Added)** Coordinate with AMU Production Superintendent and notify QA and MOC of possible impoundment action prior to aircrew departure of debrief section.

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

7.6.12.1. **(Added)** Brief the Impound Official on their responsibilities and provide them with an impoundment continuity book for the duration of the impoundment.

7.6.12.2. **(Added)** Serve as a safety observer and take pictures, if necessary.

7.6.13. **(Added)** Impoundment Official will:

7.6.13.1. **(Added)** Notify MOC of impoundment release.

7.8. (Added) Quarantine Procedures.

7.8.1. **(Added)** The following applies to aircraft quarantine with actual/suspected rodents, pests, or contaminated soil, organic debris, biological contaminants, etc.

7.8.1.1. **(Added)** Owning AMU Pro Super will not authorize the offload of cargo (to include aircrew gear, CTKs, etc.) if the aircraft is suspected of contamination or if the aircraft is involved in physiological mishaps.

7.8.2. **(Added)** Aircraft will be quarantined when:

7.8.2.1. **(Added)** Identified by base Public Health officials or United States Department of Agriculture (USDA) as having possible biological contaminants from soils, organic debris, or other sources; or if contamination is discovered during performance of routine post flight maintenance operations.

7.8.2.2. **(Added)** Evidence of actual/suspected rodents or pest infestation exists. Note: All normal ground handling, servicing and maintenance may be performed on aircraft after coordination with the quarantine team chief. Use every precaution necessary to prevent soils and organic matter from migrating. Deviations must be coordinated and approved though 437 MXG/CC (or designee) and USDA officer.

7.8.3. **(Added)** AMXS Operations Officer/Maintenance Superintendent will task owning AMU to assign a Quarantine Team Chief with a minimum rank of MSgt.

7.8.4. **(Added)** MOC will:

7.8.4.1. **(Added)** Notify AW/SE and MXG/QA and inform them of quarantine.

7.8.4.2. **(Added)** Notify 628th Civil Engineer Squadron (CES) to dispatch an Entomology specialist.

7.8.4.3. **(Added)** Inform Command Post of quarantine and request they notify 437 OG/CC and 437 MXG/CC.

7.8.4.4. **(Added)** Enter discrepancy in FMXC2 (if applicable).

7.8.4.5. **(Added)** Notify Public Health, USDA, and 628 CES and request representatives to contact quarantine team chief.

7.8.4.6. **(Added)** Contact owning base's MOC (for transient aircraft) and inform them of the quarantine.

7.8.5. **(Added)** Quarantine Team Chief will:

7.8.5.1. **(Added)** Enter a Red X in aircraft AFTO Form 781A, giving specific reason for rodent/pest/contamination quarantine.

7.8.5.2. **(Added)** Seal aircraft until the Entomology specialist representatives arrive.

7.8.5.3. **(Added)** Advise Entomology specialist of last known location of rodents/pests.

7.8.5.4. **(Added)** Ensure Entomology specialists remove tracking patches/traps when aircraft is determined rodent/pest free.

7.8.5.5. **(Added)** Clear discrepancy from aircraft forms if nothing is found. If Entomology specialist finds rodents/pests, then IA will determine if impoundment is necessary.

7.8.5.6. **(Added)** As applicable for aircraft quarantined with actual/suspected contaminated soil, organic debris, etc., on aircraft:

7.8.5.6.1. **(Added)** Determine residue as a light or heavy soil concentration and establish team to coordinate cleaning/disinfecting effort.

7.8.5.6.2. **(Added)** Advise agency representatives of the aircraft condition and coordinate the cleaning/disinfecting through Contractor Officer Representatives (COR). COR will coordinate actions required by Transient Alert, aircraft wash, and hazardous waste management contractors.

7.8.5.6.3. **(Added)** Ensure all aircraft quarantined for soil and debris residue be cleaned inside approved wash facility. USDA has inspected soil containment capabilities at Joint Base Charleston in building 63 and designated it as Plant Protection and Quarantine (PPQ)-approved wash facility. Coordinate moving aircraft into a PPQ-approved wash facility and direct aircraft cleaning IAW TO 1- 1-691, *Cleaning and Corrosion Control*.

7.8.5.6.4. **(Added)** Ensure aircraft with light soil residue per USDA are cleaned IAW major interior wash package.

7.8.5.6.5. **(Added)** Ensure aircraft with heavy soil residue are cleaned using the refurbishment wash preparation package.

8.2. (Added) Aerial Port Squadron will use two definitions for tools: dispatchable and accountable work center tools. Dispatchable tools are defined as "issued out and designed to be used outside the work center, on the flightline". Accountable work center tools are defined as "non-flightline, shared assets for work center operations". Only dispatchable tools are required to comply with the requirement of this instruction.

8.2.1.2. **(Added)** Unit Commanders will ensure an effective program is in place and compliant with this instruction for those sections that perform duties on the airfield or in aircraft maintenance facilities.

8.2.1.3. **(Added)** Unit commander and CORs will ensure that contractors, Depot Field Teams, Contract Field Teams, Field Service Representatives and other agencies performing any maintenance on the airfield or in aircraft maintenance facilities are accountable for their own tools and follow lost tool guidelines in this instruction.

8.2.2.1. **(Added)** Periodic Inspections (PI) will be performed every 180 days for accountability, cleanliness, and general condition of equipment. Inspection will include verifying EID markings are correct and legible.

8.2.2.2. **(Added)** PIs will be documented by the individual completing the inspection in TCMax® when accomplished.

8.2.3. **(Added)** All tools under warranty will be replaced with another warrantied tool. Tool rooms will follow the warrantied tool replacement procedures IAW vendor requirements.

8.2.3.1. **(Added)** All broken tools under warranty will be stored separately from non-warranty tools. Storage locations must be easily distinguishable from non-warranty tools.

8.2.4. **(Added)** CTK custodians must manage these items to ensure positive control. Replacement expendables and consumables will be kept secured in a separate cabinet labeled "expendables/consumables." Inventory and Lost Tool procedures will apply to consumable/expendable items as they do for CTKs.

8.2.4.1. **(Added)** Dispatchable Hazmat items will be accounted for in TCMax®. Hazmat items will be properly labeled to identify its contents.

8.2.5.2. **(Added)** On-site transfer of CTKs and/or equipment at the job site will be authorized by a SNCO or equivalent, only when there is a significant increase in operations or when directed by the Pro Super, Dock Chief, Flight Chief or equivalent. Once authorization has been granted for an on-site transfer, a joint inventory of all applicable tools and equipment will be accomplished. The designated representative and individual taking responsibility will be present at the CTK to approve the on-site transfer in TCMax®. An AF Form 1297, *Temporary Issue Receipt*, with the designated representatives printed name and signature will be presented to CTK, approving the on-site transfer in TCMax®.

8.2.6. **(Added)** Refer to **Paragraph 8.9** of this instruction for local Lost Item/Tool procedures.

8.2.8.4. **(Added)** Individually issued PPE must be maintained in a serviceable conditional IAW TO 32-1-101, *Use and Care of Hand Tools and Measuring Tool* ANSI/ISEA Z87.1, and/or applicable manufacturer's guidance. Supervisor's will ensure unserviceable PPE items are replaced in a timely manner.

8.2.9.4. **(Added)** Rags will be controlled as a CTK item and will be issued in bags, pouches, etc. The rag container will be labeled with the CTK number along with the quantity of rags contained. The bag is counted as one of the items. Local shop CTKs will develop a written policy to standardize their rag inventory to meet this requirement (i.e., size and color).

8.2.12. **(Added)** When a depot team, factory representative, or contract field team works on aircraft or equipment, they will comply with applicable Air Force procedures for tool control and accountability or a signed Statement of Work (SOW) procedure. If visiting maintenance personnel have no provisions for tool control and accountability, the visiting team chief will coordinate with QA to develop a program. The guidance developed will be documented by letter, signed by the MXG/QA Superintendent and the team chief and maintained for the duration of the stay.

8.2.15.2. **(Added)** The oncoming shift or supervisor must account for all tools and equipment before the outgoing shift departs.

8.2.16. **(Added)** Tool rooms will remain secured and locked when not occupied by tool room personnel. Units will establish procedures for situations where access is required when a tool room employee is absent.

8.3.6.7.1.1. **(Added)** When not documented on the hard copy MIL, missing, removed and/or broken tools/items will be documented on the 437 MXG Form 4, *Broken/Removed/Damaged Tool Log*

8.3.6.7.1.3. **(Added)** Lost Tool procedures will be initiated for all missing tools/items IAW **Paragraph 8.9.2.1** of this instruction.

8.3.6.7.1.4. **(Added)** Whenever a tool/item is broken, all pieces will be accounted for by the CTK custodian, or representative. Lost Tool procedures will be initiated when all pieces of the broken tool/item cannot be identified IAW **Chapter 8**.

8.3.13. **(Added)** Inspections will consist of inspecting all tools and kits for serviceability IAW T.O. 32-1-101. In addition, inspect each tool to ensure its etchings match the tool control number EID or owning unit number or acronym (for non-aircraft maintenance units).

8.3.14. **(Added)** Any equipment or tools utilizing an AFTO Form 244, *Industrial/Support Equipment Record,* will have the Supervisory Review complied with IAW T.O. 00-20-1 every 180 days or when new or replacement forms are generated.

8.3.14.1. **(Added)** Supervisory Reviews will be completed by a 7-level (i.e. NCOIC, Shift Lead, etc.) in the AFSC that commonly uses the support equipment.

8.3.15. **(Added)** Equipment forms may be maintained in a separate location when frequent equipment usage and/or size makes it impractical for the forms to accompany the equipment. AFTO Form 244 not attached to such equipment will be stored in a central file located within CTKs.

8.3.16. **(Added)** Aerial Platforms (i.e., scissor lifts, high reach, etc.) will be given a visual inspection and functional test in accordance with the manufacturer's instructions before use each day or at the beginning of each shift.

8.3.16.1. **(Added)** Visual/functional inspections will be documented on Part II of the equipment AFTO Form 244.

8.5.2. **(Added)** When dispatchable/decentralized CTKs, tools, and equipment are returned to the tool room, the CTK custodian or work center personnel will conduct a visual inspection of items before transferring accountability back to the tool room/work center.

8.6.1.3. **(Added)** QA will maintain a list of each unit's EID. Changes will be routed through the QA office.

8.6.1.4.3. **(Added)** All locally Added items to a vehicle (FOD can, chocks, strobe light, etc.) will be marked with the vehicle ID number and identified on the AF Form 1800, *Operator's Inspection Guide and Trouble Report.*

8.6.8. **(Added)** CTKs, test equipment, and storage containers subject to use on the flightline will have reflective paint or tape on all sides to outline the container.

8.7.1. **(Added)** General manufacturing of procurable items is restricted to those which are mission essential. 437th/315th Maintenance Squadron (MXS) supervision or designated representative approves all local manufacture of items source coded as local manufacture or "JBD.'' MXS Production Superintendent approves all other JBD requests.

8.8.1.1.1. **(Added)** Squadron CCs will develop procedures to ensure custodial control in writing.

8.8.1.4. **(Added)** Mobility CTKs, stored in a Container Express (CONEX) and not used, issued, or opened will be inspected on a 12-month interval and/or prior to deployment. If a Mobility CTK is opened, or used for any reason, it must be thoroughly inspected and documented on an AFTO Form 244, *Industrial Support Equipment Record* prior to it being returned to storage. Minimum inspection requirements:

8.8.1.4.1. **(Added)** Free of corrosion and foreign objects.

8.8.1.4.2. **(Added)** Inventory of all content contained in Mobility CTK.

8.9.2. **(Added)** A lost item/tool includes but is not limited to: CTK controlled item/tool; aircraft, equipment, and On-Board Loose Equipment (OBLE) items; personal issued items (backpacks, ear defenders, reflective belts, etc.), consumables, and bench stock.

8.9.2.1. **(Added)** Personnel will account for all tools and equipment dispatched to the flight line. If a member discovers a tool missing, a 1-hour initial search will be conducted. If the item cannot be located after the initial search, the member will initiate the following lost tool procedures.

8.9.2.3.2. **(Added)** 437 MXG Form 1, *Lost Tool/Item Report*. Squadron work centers and/or CTK custodian or designated representative will assign a tracking number to the report (i.e., two-digit year, Julian date, EID or aircraft serial number).

8.9.2.4.1. **(Added)** If the item/tool is believed lost on an aircraft that has taxied or is flying, the production supervisor will immediately notify MOC with the nomenclature of the item, and where and how it could affect safety of flight. MOC will then contact Command Post to inform the aircrew.

8.9.2.4.2. **(Added)** All base agencies that dispatch to the flightline, and taxiways will account for all tools and equipment and will notify MOC immediately upon discovery of a lost tool/item. MOC will dispatch the appropriate owning agency if the lost tool/item is believed to be lost on an aircraft to initiate lost tool procedures.

8.9.2.5. **(Added)** An updated Lost Tool/Item Report will be sent to the QA office.

8.9.2.6.2.1. **(Added)** A copy of the Lost Tool/Item Report will be sent to the QA office.

8.9.2.6.2.2. **(Added)** Squadron work centers and/or CTK custodians will maintain a copy of the Lost Tool/Item Report for a minimum of 1 year.

9.17.3. **(Added)** Local Manufacture Request Procedures

9.17.3.1. **(Added)** Requestor Will:

9.17.3.1.1. **(Added)** Generate automated AFTO Form 350 for requesting organizations without FMXC2 capability, for local manufacture requisitions from Flight-line Service Center (FSC) based on DD Form 1348-1A *Issue Releaser/Receipt Document* requests, and for non-aircraft/support equipment requests approved by MXS Production Superintendent.

9.17.3.1.2. **(Added)** Obtain blueprints/drawings from contractors for C-17 aircraft parts based on supply requisitioned part numbers for Source Maintenance Recoverability (SMR) Codes AFO, AFF, MFF, MFO, & XB when directed by maintenance supervision. Obtain drawings for non-C-17 and non-aircraft parts from requestor and/or sample of item from requestor if drawings/blueprints do not provide adequate dimensions. Provide drawings, blueprints, and/or sample items to the manufacturing work center.

9.17.3.1.3. **(Added)** Order all materials and items pertaining to the work center required for completion of local manufacture request against supply due-out document. If the item is a Mission Impaired Capability Awaiting Parts (MICAP), order materials against the aircraft tail number through the aircraft parts store.

9.17.3.1.4. **(Added)** Collect, store, and control parts, bits and pieces for local manufacture until all parts are received for the project. In conjunction with repair shops, establish storage locations and control procedures for locally manufactured parts, bits and pieces.

9.17.3.1.5. **(Added)** Provide completed parts kit and drawings to the manufacturing work center for manufacture/assembly.

9.17.3.1.6. **(Added)** Route assembled/manufactured part to appropriate back shop for bench check, pressure test, oxygen system contamination cleaning, etc., as required, ensuring component integrity/safety.

9.17.3.1.7. **(Added)** Notify FSC when the work order is completed or being processed for pick-up. Large items will be picked up by the requestor at the primary manufacturing activity.

9.17.3.2. **(Added)** Manufacturing Work Center will:

9.17.3.2.1. **(Added)** Provide FSC with total cost to manufacture item (required for reimbursement).

9.17.3.2.2. **(Added)** Determine overall cost for material ordered, any additional supplies used in assembly process, and assembling fee for item, (e.g., $60.00 per hour). Cost will cover replacement of minor materials (rivets, sandpaper, cutters, etc.) used to locally manufacture items, but not ordered against request.

9.17.4. **(Added)** Aircraft and Support Equipment Mission-Related Requests responsibilities:

9.17.4.1. **(Added)** Requestor will:

9.17.4.1.1. **(Added)** Order aircraft items through aircraft parts store and support equipment through Supply Demand Processing Unit (DPU).

9.17.4.1.2. **(Added)** Ensure MICAP requests are verified and upgraded (as necessary) by contacting aircraft parts store.

9.17.4.1.3. **(Added)** When item causes a grounding condition, requestor will coordinate directly with 437 MXS Production Superintendent (MAV-4). After coordination with MAV-4 and manufacturing shop, requestor will order part through aircraft parts store.

9.17.4.1.4. **(Added)** For C-17 aircraft parts, requestor will order end item part number. For other aircraft or equipment parts, submit a sample (if available) and/or blueprint(s) of requested item.

9.17.4.1.5. **(Added)** Generate automated AFTO Form 350 tags for local manufacture. For units without FMXC2 capability or if FMXC2 is not operational for MICAP parts, submit a manual AFTO Form 350.

9.17.4.2. **(Added)** Manufacturing Work Center Section Chief will:

9.17.4.2.1. **(Added)** Evaluate capability to locally manufacture items using applicable shop references, provided blueprints, Engineering Dispositions, and technical orders.

9.17.4.2.2. **(Added)** Treat all requests for local manufacture of aircraft and support equipment parts or components as priority "3." MICAP items will be treated with appropriate sense of urgency.

9.17.4.2.3. **(Added)** Provide an estimated completion date, cost of the material, and man-hours required for manufacturing requested item to 437 MXS Production Superintendent.

9.17.5. **(Added)** Non-Aircraft/Support Equipment Mission-Related Requests responsibilities:

9.17.5.1. **(Added)** Requestor will:

9.17.5.1.1. **(Added)** Provide a sample, blueprint, or drawing of item requiring manufacture from supervision of requesting activity to manufacturing activity.

9.17.5.1.2. **(Added)** Secure a signature of approval from production controller, estimate of material, and overall cost from manufacturing activity.

9.17.5.1.3. **(Added)** Carry all documentation (AF Form 2005 or DD Forms 1348-1/1348-6 *Single Line Item Requisition System Document*) to Customer Service Center (Bldg. 610) and obtain a Supply document number for requested item.

9.17.5.2. **(Added)** Manufacturing Work Center Section Chief will:

9.17.5.2.1. **(Added)** Evaluate requests to determine capability to manufacture and estimate time, material, and cost for prime work center to manufacture items.

9.17.5.2.2. **(Added)** Provide production controller a daily update on all local manufacture requests and if the completion date is going to be exceeded, with reasons why.

9.17.6. **(Added)** After-Duty Hours Request. Only mission-essential/MICAP requirements will be processed after normal duty hours.

9.17.6.1. **(Added)** Requestor will:

9.17.6.1.1. **(Added)** Complete requirements in **paragraphs 9.17.5.1**.

9.17.6.2. **(Added)** Manufacturing Work Center Section Chief will:

9.17.6.2.1. **(Added)** Order all materials and items required for completion of local manufacture request against supply due-out document. If item is MICAP, order materials against aircraft tail number through 628 LRS Supply.

9.17.6.2.2. **(Added)** Return completed part to 628 LRS Supply, MICAP section along with man-hours and material cost for processing.

9.17.6.2.3. **(Added)** Notify 437 MXS Production Superintendent of any after-hours local manufacture tasking on next duty day.

9.17.7. **(Added)** General Information for Local Manufacture of Tools and Equipment.

9.17.7.1. **(Added)** All requests for the local manufacture/modification of tools and equipment used on aerospace equipment not identified, or required by technical data, must be coordinated through the Quality Assurance office. Requests will be coordinated by the requesting unit, prior to manufacturing, on the 437 MXG Local Manufactured Tool Request Memorandum. A template of the Manufactured Tool Request can be located in ETIMS.

9.17.7.2. **(Added)** All requests will be routed through the unit's Director of Operations/MX SUPT.

9.17.7.3. **(Added)** The QA SUPT will review and coordinate all requests IAW **paragraph 6.3.9**.

9.17.7.4. **(Added)** The MXG/CC, or designated representative, is the final approval authority for local manufacture/modification requests.

9.17.7.5. **(Added)** Approved requests will be kept in unit CTK continuity books.

9.17.7.6. **(Added)** Review items and requirements every 2 years for applicability and current configuration.

9.17.7.7. **(Added)** Approved requests must be routed through MDS/Equipment engineers prior to use.

9.17.7.8. **(Added)** When a locally manufactured/modified item is not a one-time-use item, units will route a Recommended Change (RC) in ETIMS for inclusion in the MDS/Equipment specific Technical Order.

9.18.5. **(Added)** Each Squadron will assign a primary and alternate DIFM monitor from each work center. Exception: Units utilizing a Sortie Sustainment Cell to control DIFM assets.

9.18.5.2. **(Added)** Work center DIFM monitors will:

9.18.5.2.1. **(Added)** Ensure correct and timely turn-in of DIFM assets ERRC codes of XD or XF for their work center.

9.18.5.2.2. **(Added)** If DIFM assets are delinquent for more than 72 hours, DIFM monitors will brief the production superintendent of current status.

9.18.5.2.3. **(Added)** Maintain a DIFM logbook to record ordered and turned-in assets.

9.18.5.2.4. **(Added)** Notify production superintendent of DIFM parts approaching the 60-day turn in mark for TNB items.

9.18.5.3. **(Added)** Expediters & Work Center Supervisors will:

9.18.5.3.1. **(Added)** Ensure ordered parts are picked up in a timely manner. Each DIFM part issued from 628 LRS Supply requires signature by the end of shift.

9.18.5.3.2. **(Added)** Account for all DIFM assets and/or turn in at the end of each shift.

9.18.5.4. **(Added)** Technicians will:

9.18.5.4.1. **(Added)** Log all ordered DIFM parts into work center log.

9.18.5.4.2. **(Added)** After a DIFM part is signed for, promptly turn in the unserviceable part within 72 hours unless the part was put in TNB, sent on a Maintenance Recovery Team (MRT), or the job is still in work.

9.18.5.4.3. **(Added)** Users will completely and correctly fill out all AFTO Forms 350, and condition tags. When turning in an engine/APU fire bottle, the appropriate condition tag will include the following statement: "This item has been inspected by ___ and to the best of my knowledge and belief is inert and/or free of explosives or other dangerous materials." Prominently stamp shipping containers in half-inch letters "EXPLOSIVES REMOVED."

9.18.5.4.4. **(Added)** Ensure all DIFM parts are accompanied with a Standard Asset Tracking System (SATS) label, a fully completed AFTO Form/Automated 350 Tag, appropriate condition tags, and drain and purged tags when required.

9.18.5.4.5. **(Added)** If DIFM part cannot be accounted for, the responsible individual (last person who signed for part) will have 72 hours to locate the part. If the part cannot be located within 72 hours, the unit commander (organization issued DIFM part from supply) will appoint an investigating officer to initiate a Report of Survey.

9.24.1. **(Added)** The Product Improvement Manager (PIM) is the focal point for all DR's.

9.24.2. **(Added)** Reporting procedures for CAT I and II DRs:

9.24.2.1. **(Added)** DR originator will:

9.24.2.1.1. Coordinate with expediter, shift supervisor, production superintendent, and maintenance supervision immediately to confirm CAT I or II criteria as outline in T.O. 00-35D-54. Complete DR worksheet at the QA SharePoint site: **https://usaf.dps.mil/teams/437AW/437MXG/QA/SitePages/Quality-Assurance.aspx** and ensure CAT 1 DRs are submitted in JDRS within 24 hours.

9.24.2.1.2. **(Added)** Send all DR worksheets via e-mail to the PIM email box **phoenix.star@us.af.mil**. Additionally, send pictures of the part data plate and any damages. Ensure the deficient part is turned into the PIM with a DR worksheet, 2 AFTO Forms 350, and 2 appropriate condition tags. If submitting a "bad from supply" DR, it must be accompanied by its original yellow serviceable tag.

9.24.2.1.3. **(Added)** Prior to part turn-in to Repair Cycle Support Element (RCSE) for coordination and processing, bring all DR documentation to PIM if part is too large to hand carry.

9.24.2.1.4. **(Added)** Attach AFTO Form 20 to parts that are required to be drained and purged.

9.24.2.1.5. **(Added)** Notify maintenance operations officer or designated representative upon CAT I DR submittal in JDRS.

9.24.2.1.6. **(Added)** Have detailed data regarding deficiency report and must provide contact info to PIM for future input as needed.

9.27. (Added) Home Station Check (HSC) Facilitate Other Maintenance (FOM) Storage.

9.27.1. **(Added)** FOMs are storage locations established and controlled to store issued parts awaiting installation, and parts removed to FOM, during the HSC inspection process. FOM storage locations are set up by aircraft serial number and parking location. When utilized, Maintenance flight will establish a centralized storage location for each aircraft in possession throughout the inspection process.

9.27.2. **(Added)** When items are removed from their installed positions on the aircraft to facilitate the HSC inspection process, an AFTO Form 350 with blocks 1, 2, and 14 documented, will be attached to the removed item.

9.27.3. **(Added)** When replacement items are received from supply and not immediately installed on the aircraft, an AFTO Form 350 with blocks 1, 2, and 14 documented, will be attached to the replacement items.

9.27.4. **(Added)** Items stored in the FOM storage location and awaiting installation will be tracked in a logbook.

9.27.4.1. **(Added)** Each entry will indicate:

9.27.4.1.1. **(Added)** Date item entered in storage.

9.27.4.1.2. **(Added)** Minimum signature of individual that entered item into storage.

9.27.4.1.3. **(Added)** Noun/nomenclature of item.

9.27.4.1.4. **(Added)** Document number, if applicable.

9.27.4.1.5. **(Added)** JCN.

9.27.4.1.6. **(Added)** Date item removed from storage.

9.27.4.1.7. **(Added)** Minimum signature of individual that removed item from storage.

9.27.5. **(Added)** Small parts and hardware removed from the aircraft to FOM will be contained in a parts bag (if feasible) that will be labeled with JCN, aircraft tail number, and quantity of each type of part/hardware.

9.27.5.1. **(Added)** Parts bag containing hardware will be tethered/attached to the panel or end item when removed from the aircraft.

11.6.6. **(Added)** Procedures. When a Red Ball occurs:

11.6.6.1. **(Added)** MOC will be notified immediately of a Red Ball discrepancy which will be assigned a job control number. All updates/changes will be coordinated through the MOC.

11.6.6.2. **(Added)** Production will ensure that the appropriate work center is dispatched, parts are ordered correctly and picked up from supply. All required maintenance actions performed will be documented prior to aircraft launch.

11.8.3.2.1. **(Added)** Engine inlet covers, and plugs should be installed 24 hours prior to forecast icing conditions and high winds. Exception: Aircraft that are scheduled to fly within 24 hours do not require the installation of engine inlet covers and plugs.

11.8.3.2.2. **(Added)** Engine openings and cavities inside the inlet nacelle will be covered when the presence of loose, falling, and flying debris is introduced (i.e., metal shavings, compounds, loose hardware, etc.)

11.8.3.3. **(Added)** Personnel will follow MDS specific technical order requirements for aircraft protective covers.

11.8.3.8.1. **(Added)** Personnel will be on constant alert for FOD throughout all phases of maintenance. Special attention must be given to small items or debris (i.e., safety wire, cotter pin clippings, bolts, nuts, screws, etc.). Loose materials and/or hardware will be placed in parts bags or FOD containers during normal job performance (see **paragraph 9.27.5** of this instruction). FOD containers controlled in a CTK will be emptied prior to return to storage location.

11.8.3.10.2. Units will conduct FOD walks for their respective areas according to the assigned area of responsibility (AOR) on the MXG Airfield Parking located on the QA SharePoint site: **https://usaf.dps.mil/teams/437AW/437MXG/QA/SitePages/Quality-Assurance.aspx**.

11.8.3.10.2.1. **(Added)** Area A: AMXS

11.8.3.10.2.2. **(Added)** Area B: MXS/MXO

11.8.3.10.2.3. **(Added)** Area C: APS

11.8.3.10.2.4. **(Added)** Area D & E: Using organization.

11.8.3.10.3. **(Added)** Squadron FOD monitors will ensure the FOD Boss is used and documented weekly over all aircraft parking areas and taxiways to include areas in which aircraft are towed, and access roads for their respective AOR. Units will document completion and provide a monthly report of FOD sweeps performed and findings to the Wing FOD Monitor (MXQ). Findings include significant FOD collected, weight, and area swept.

11.8.3.10.4. **(Added)** 628 LRS will provide monthly sweeper status to the Wing FOD Prevention Office (MXG/QA) for current serviceability of sweepers. Contact MOC or airfield management to dispatch 628 CES for additional ramp sweeper service, as required.

11.8.3.12.3.1. **(Added)** Continuous alert for FOD prone areas to include the aircraft flightdeck, crew rest area, and loadmaster station should be emphasized throughout all phases of maintenance actions

11.8.5.2. **(Added)** Weekly spot checks of aircraft hangars, ramps, vehicles, and squadron maintenance areas for FOD and tool/equipment accountability will be completed and documented by unit FOD monitors for their respective AOR.

11.8.6.1.2. **(Added)** Maintenance personnel finding or suspecting FOD will leave aircraft or equipment in the condition it was discovered until a preliminary FOD investigation is completed by the Wing FOD Monitor or designated representative.

11.8.6.1.3. **(Added)** Units discovering FOD will upload the incident information to the QA SharePoint within 24 hours. In the event SharePoint is down, the unit will submit a 437 MXG Form 9, *Foreign Object Damage Report* within 24 hours.

11.8.6.4.4.2. **(Added)** Units will utilize 437 MXG Form 10, *FOD Blade Blending Worksheet*.

11.8.7.1.1. **(Added)** The OG/CC will chair the meeting in the absence of the MXG/CC and WG/CD.

11.9.1.6.4. **(Added)** DOP training will be covered during annual block training and is provided online by 437 MXG/MXOT.

11.9.1.6.4.1. **(Added)** Special attention will be placed on the following items during aircraft inspections and maintenance actions: Aircraft external panels, doors, fairings, lens covers, and components, to include condition of hinges, hinge pins, and latches for proper fit and delamination. Quick release pins for proper locking.

11.9.1.6.4.2. **(Added)** Hinged panels will be fully opened and secured (if applicable), or fully closed and secured. All other exterior items will be fully removed or fully installed, unless designed to hang by lanyards. Lanyards will be inspected for serviceability prior to allowing the panel to hang.

11.9.2.1.1. **(Added)** Wing DOP Program Monitor or MXG/QA representative will investigate all dropped object incidents.

11.9.2.1.2. **(Added)** When material or design deficiency is determined to be the cause of a dropped object, a representative from the affected aircraft maintenance unit will submit a Deficiency Report IAW **paragraph 9.24** in this instruction, to the 437 MXG/QA Product Improvement office at **phoenix.star@us.af.mil**.

11.9.4.1. **(Added)** Upon initial discovery of a dropped object, immediately notify the Production Superintendent, MOC, AMXS Debrief, and QA

11.9.5.1. **(Added)** The owning agency discovering the dropped object will upload the DOP information to the QA SharePoint within 12 hours. If in the event SharePoint is down the Unit will submit a 437 MXG Form 8, *Dropped Object Report*, to the Wing DOP Monitor within 12 hours.

11.9.7.2.1. **(Added)** Total costs will include all parts and maintenance actions associated with the repair. The AMU Section responsible for the repair action will provide a breakdown of the total cost of repair within 48 hours of initial dropped object notification (i.e., labor, parts, and associated hardware.)

11.9.8.1. **(Added)** The AMU Section responsible for the repair action will be responsible for submitting a DR within 48 hours of initial dropped object notification.

11.10.6. **(Added)** Aircraft Structural Integrity Program (ASIP)

11.10.6.1. **(Added)** General:

11.10.6.1.1. **(Added)** Adherence to this directive is required to ensure the proper execution of the ASIP. Deviations from this instruction will result in a loss of data capture. The data collected is used to monitor and predict the expected structural life span of the C-17A fleet, which may affect command decisions regarding fleet disposition.

11.10.6.2. **(Added)** Duty Position:

11.10.6.2.1. **(Added)** The Mission Design Series (MDS) ASIP manager resides with the Maintenance Group Engineering Section.

11.10.6.2.2. **(Added)** The 437 AMXS AMU OIC or AMU Chief will appoint unit ASIP monitors in writing.

11.10.6.3. **(Added)** All 437 AW C-17A aircraft are equipped with the Data Acquisition System (DAS).

11.10.6.3.1. **(Added)** 437 AMXS AVI personnel will download all DAS information IAW the requirements outlined in TO 1C-17A-6. The DAS information will then be transferred via a CD-R or a removable hard drive from the Support Equipment Computer (SEC laptop) to the Aircraft Data Acquisition and Distribution System (ADADS) for submission. Once verified as successfully submitted, files may be deleted at the discretion of the ASIP manager. In the event electronic transfer of files is unavailable, copies of files sent by mail will be saved until receipt of the data is verified. At the discretion of the ASIP manager, the local files may be deleted once files are confirmed in ADADS.

11.10.6.4. **(Added)** ASIP Data Collection and Submittal Documentation:

11.10.6.4.1. **(Added)** Transfer of C-17 data will be documented on the AF Form 781A (FMXC2 only when in HSC paperless process) by the AVI technician who accomplishes the download.

11.10.6.5. **(Added)** ASIP Training Requirements:

11.10.6.5.1. **(Added)** The 437 AMXS Section Chief will ensure all C-17A AVI personnel are properly trained on procedures for documentation and submission of ASIP data to the ADADS database. Training will be documented in individual TBA records.

11.10.6.5.2. **(Added)** Users must request account access at the ADADS website, **https://asimis.tinker.af.mil/ADADS/**

11.10.6.6. **(Added)** Supporting ASIP Aircraft at Deployed Locations: Maintenance teams deployed in support of operations with L/ESS equipped aircraft will adhere to this guidance.

11.13.3.4.1. **(Added)** CA will determine when CANN is necessary due to supply shortfalls and determine which donor aircraft is most operationally feasible.

11.13.3.4.2. **(Added)** CA will ensure a valid CANN JCN is assigned to donor aircraft by MOC, valid document number is issued from supply, and operable part is turned in for DIFM (see **paragraph 9.18** of this instruction). All aircraft forms will be annotated to reflect CANN action. (For PMC discrepancy, defective part may be installed on donor aircraft to meet weight and balance requirements).

11.14.2.1.2.1. **(Added)** The appointed Hangar Queen manager will utilize 437 MXG Form 14 *Hangar Queen Checklist* to implement the Hangar Queen Plan.

11.35.2. **(Added)** Fire Extinguisher Inspections

11.35.2.1. **(Added)** All users will be responsible for completion of monthly inspections, NLT the 10th calendar day each month on all fire extinguishers IAW TO 13F4-4-121, paragraph 5-1, and DAFMAN 91-203. Users will also be responsible for coordinating issues with the appropriate POC detailed in this section.

11.35.3. JB CHS MXG Facility Fire Extinguisher.

11.35.3.1. **(Added)** Will be managed by the assigned facility manager.

11.35.3.2. **(Added)** Facility fire extinguishers will remain in the building to which they are assigned and managed by the facility manager.

11.35.3.3. **(Added)** Facility managers will coordinate with the MXG Fire Extinguisher COR office at 963-3988. They will contact the contractor and have it picked up for repair during their next weekly visit.

11.35.4. **(Added)** Vehicle and Aircraft 5lb Halon/NOVAC 1230 Fire Extinguishers, Flightline 150lb Halon/NOVAC 1230/ Fire Extinguishers.

11.35.4.1. **(Added)** Will be managed by Viper Flight, Dash 21 equipment section.

11.35.4.1.1. **(Added)** Vehicle and Aircraft 5lb Halon/NOVAC 1230 Fire Extinguisher.

11.35.4.1.1.1. **(Added)** Vehicle fire extinguishers and Aircraft 5lb Halon/NOVAC 1230 bottles will be exchanged by the user prior to the expiration of the annual inspection. Production Supervisors will coordinate with Viper Flight supervision if an aircraft mission need dictates otherwise.

11.35.4.1.1.2. **(Added)** When an extinguisher requires replacement contact Dash 21 or AMXS Support Section Custodians at 963-7637.

11.35.4.1.2. **(Added)** Flightline 150lb Halon/NOVAC 1230 Bottles.

11.35.4.1.2.1. **(Added)** Flightline Halon/NOVAC 1230 bottles are labeled by serial numbers. Example “JBC01”.

11.35.4.1.2.2. **(Added)** If defects are identified the user will exchange with a serviceable fire bottle. Serviceable fire bottles are stored behind building 575. There are designated storage areas for serviceable (green) and unserviceable (red) fire bottles.

11.35.4.1.3. **(Added)** Mobility 150lb Halon/NOVAC 1230 Bottles

11.35.4.1.3.1. **(Added)** Are labeled with serial numbers. Example “MOB01”.

11.35.4.1.3.2. **(Added)** Halon/NOVAC 1230 bottles are secured inside of building 517 and will not be removed unless previously coordinated with Mobility POC or UCC at 963-3087.

11.45.1.1.1.1. **(Added)** December thru February are high risk months for icing conditions.

11.48. (Added) Control and Utilization of AGE.

11.48.1. **(Added)** General. All personnel (military, civilian, and contractors) operating powered and non-powered AGE will ensure equipment is serviceable prior to use, and that the equipment is utilized IAW the applicable equipment operator’s manual.

11.48.1.1. All AGE will be cleared from the wing tip AGE boxes when aircraft are not present on the spot. As an exception, necessary AGE (Diesel or Electric Generator, AC Cart, 150lb halon/NOVAC 1230 bottle, and Turbine Generator) required to support aircraft scheduled to be parked on a spot may remain staged in the wing tip AGE boxes at the discretion of the Production Superintendent to ensure equipment is available. AGE not required for generation efforts will be cleared after use.

11.48.1.2. When an aircraft or spot is left unattended, Diesel and Electric Generators should have power cords rolled up and properly stowed, even when positioned for use. This facilitates AGE pickup, round-robin rotations, movement of AGE operations, and enables swift completion of emergency action checklists.

11.48.2. **(Added)** AGE Users will:

11.48.2.1. **(Added)** Coordinate with AGE for all powered AGE movement to the AGE ready line. Powered AGE already on an aircraft spot may be moved by maintenance personnel for mission requirements.

11.48.2.1.1. Movement of powered AGE to the AGE ready line will only be accomplished by AGE personnel per T.O. 00-20-1 AMC SUP Glossary 4. Movement of powered AGE may be moved from spot to spot or to the designated sub-pool at the discretion of the production supervisor to ensure equipment is available in a timely manner.

11.48.2.2. **(Added)** Coordinate pickup and delivery of non-powered AGE, such as: maintenance stands, aircraft jacks, LOX carts, and oil/hydraulic servicing carts, with AMU Production or designated representative.

11.48.2.3. **(Added)** Perform Operator Inspection IAW TO 00-20-1, and applicable supplements, prior to use of the equipment. This inspection does not need to be documented in Part II of the AFTO Form 244.

11.48.2.3.1. Defects will be recorded in Part V of the AFTO Form 244/245, AGE dispatch will be notified immediately. Unserviceable equipment should be identified with a red flag, located insides the forms pouch, and immediately notify Mav 4 or AGE dispatch to coordinate repairs.

11.48.2.4. **(Added)** Ensure equipment is configured prior to movement and upon completion of maintenance tasks as follows:

11.48.2.4.1. **(Added)** Secure all cables, accessories, hoses, and safety devices.

11.48.2.4.2. **(Added)** Maintenance stands are free of foreign objects, handrails/safety devices installed and secured.

11.48.2.4.3. **(Added)** Platforms completely lowered, and pressure release valve levers are closed.

11.48.2.4.4. **(Added)** Tow bars locked in the stowed position.

11.48.2.4.5. **(Added)** Unattended powered and non-powered maintenance platforms will be parked within wing tip AGE boxes, AGE sub-pools, or outside of hangar wingtip clearance line.

11.48.2.4.6. **(Added)** Self-Generating Nitrogen Servicing Cart (SGNSC). Bleed regulator/service hose pressure.

11.48.2.4.7. **(Added)** Fuel Bowsers. Users will deliver fuel bowsers/waste carts to and from the Hazardous Waste Yard (Bldg. 691). Ensure fuel bowsers are drained before delivery to AGE Flight for scheduled or unscheduled maintenance actions. Coordinate disposal of waste products with 628 CES/CEAN (963-5181).

11.48.2.4.8. **(Added)** Liquid Oxygen (LOX) and gaseous oxygen (GOX) carts. Note: Do not tow carts beside or behind any dissimilar piece of equipment

11.48.2.4.8.1. **(Added)** Ensure AFTO Form 134, *Aviator Breathing Oxygen Servicing Trailer Log*, is properly documented. Proper documentation includes aircraft tail number, LOX amount used during service, LOX amount remaining in cart, user's initials, and employee number.

11.48.2.4.8.2. **(Added)** If LOX cart requires servicing, notify Blue/Gold Production. LOX plant will only service cart with properly annotated AFTO Form 134.

11.48.3. **(Added)** Powered Maintenance Platform.

11.48.3.1. **(Added)** Universal Maintenance Stands (Magic Carpet). Equipment will be available for flightline use and stored on AGE sub-pool bravo. AGE will tow to the desired location and back to the ready line when work is completed. If a platform is needed near the AGE powered

ready line (i.e., CCF, Nose Dock 1 or 2, Wash Rack or HSC), user will drive the platform to work location. Notify AGE of the work location with the field number before removal and contact again upon return.

11.48.3.2. **(Added)** GENIE Z45/25J (Engine) Users are responsible for the pickup and delivery to the maintenance location. Contact AGE immediately if the platform becomes unserviceable.

11.48.3.3. **(Added)** GENIE 1930 (Electric) Equipment is a locally funded platform lift. Direct all questions to the equipment owning agency.

11.48.3.4. **(Added)** GENIE Z-30/20N RJ Boom Lift (Electric) Equipment is located in the CCF hangar. Users will coordinate use with the Corrosion Control Support Section.

14.1.2.1.5. **(Added)** Ensure Aircrew Flight Equipment (AFE) records are verified monthly. AFE updates Global Reach tracking no later than 10th day of each month with updated kit information. This sheet will include the aircraft tail number, the set number for the item installed, the due date of next replacement, and identify any life rafts with a date of manufacture (DOM) over 15 years old. PS&D will verify that the information in FMXC2 matches the tracking sheet provided by AFE. Any discrepancies will be relayed to AFE for correction. PS&D will update the records in FMXC2 and make an automated history entry indicating that records were updated per the AFE tracking sheet, and will include the JCN if provided.

14.2.2.2. **(Added)** When updates to the master jacket file occur, the working jacket files will be updated to reflect such change(s) through attrition.

14.2.3.3.1. **(Added)** AMUs will utilize MXG Form 13 *Aircraft Document Review Checklist* to initiate the aircraft document review, and forward to the reviewing agencies. Completed MXG Forms 13 will be retained in the PS&D office until they are no longer required to be included in the aircraft jacket file.

14.2.4.3.5.8.1. **(Added)** Part and serial number verification will be accomplished during HSC.

14.2.4.3.5.8.2. **(Added)** PS&D may request out of cycle part and serial number verification to resolve known issues. When scheduled outside of a scheduled inspection, AMXS will comply with the verification. Any discrepancies discovered, (i.e., illegible markings, missing identification placards, etc.) will be reported to PS&D immediately.

14.2.4.3.5.8.2.1. **(Added)** Unit will provide PS&D with additional verification when/if requested.

14.2.5.1.3. **(Added)** HSC Coordinator or Dock Chief will verify part and serial numbers recorded on worksheet versus what FMXC2 shows installed via screen 8110. The worksheet will be sent to PS&D prior to HSC post dock meeting. Discrepancies (i.e., illegible markings, missing identification placards) will be immediately coordinated with PS&D for resolution.

14.2.5.1.3.2. **(Added)** Dock Chief or Coordinator will provide PS&D with additional verification when/if requested.

14.3.2.6. **(Added)** The PS&D section tracks and schedules special inspections, time changes, and TCTOs via FMXC2. Non CAD/PAD time changes are requisitioned by utilizing the AF Form 2005; CAD/PAD time changes are requisitioned utilizing the Microsoft InfoPath munitions issue request form provided by the munitions accountability (AFK) section.

14.3.4.2.4.2.4.1. **(Added)** Units will email a copy of all JST updates, and 437 MXG Form 11, *JST Submission Request Form,* to the QA office upon completion of all updates **437MXGQAInspectors@us.af.mil**.

14.3.4.3.6.1.1. **(Added)** CAD/PAD time changes are requisitioned by utilizing the Microsoft InfoPath Munitions Issue Request form provided by the Munitions Accountability (AFK) section. Non CAD/PAD time changes are requisitioned by utilizing the AF Form 2005.

14.3.4.3.9.1. **(Added)** Verify MIS for all TCI's replaced at depot facilities no later than 3 duty days after aircraft return to home station.

14.3.4.3.13. **(Added)** AMXS and MXS will:

14.3.4.3.13.1. **(Added)** Email Part Number/Serial Number (PN/SN) and lot number to PS&D the same day: CAD/PAD removal/installation via PS&D org box **437lg.plans.scheduling@us.af.mil**.

14.3.4.3.13.2. **(Added)** Email PN/SN to PS&D the same day as removal/installation of gear items via PS&D org box **437lg.plans.scheduling@us.af.mil**.

14.3.4.3.13.3. **(Added)** Obtain old AFTO Form 95, *Significant Historical Data,* (if applicable) from PS&D and place with removed TCI before turn-in to supply for shipment.

14.3.4.3.13.4. **(Added)** If required, locate and verify data on AFTO Form 95 of replaced TCI prior to installation within one duty day.

14.3.4.3.13.4.1. **(Added)** Verify serial number, part number, position (if applicable), DOM (if applicable), and lot number (if applicable).

14.3.4.3.13.4.2. **(Added)** If data is missing from the AFTO Form 95, record it on a piece of paper and attach to AFTO Form 95.

14.3.4.3.13.5. **(Added)** If AFTO Form 95 cannot be located, record serial number, part number, position (if applicable), DOM (if applicable), and lot number (if applicable).

14.4.1.2.20.2. PS&D will utilize Global Reach Logistics/A4 website to obtain the most current SI, TCI, and TCTO data. A document review will be printed out for each JB CHS aircraft. To maintain accuracy, updates will be manually documented to ensure data integrity when MIS is restored.

14.5.4.4.4. **(Added)** PS&D will establish and maintain a master flying and maintenance schedule template for the weekly and monthly plan.

Chapter 17 (Added)

AIRCRAFT HANGARS

17.1. (Added) Overview. This chapter describes JB Charleston's aircraft hangar responsibilities, training, and operation.

17.2. (Added) Responsibilities.

17.2.1. **(Added)** 437 MXG Facility Manager will:

17.2.1.1. **(Added)** Be the OPR for all hangar door operation status.

17.2.1.2. **(Added)** Brief the MXG/CC monthly on hangar door discrepancies, repair status, and get-well dates of inoperable hangar door systems.

17.2.2. **(Added)** Squadron Commanders will:

17.2.2.1. **(Added)** Ensure a standardized hangar door awareness program and OJT program exists for their respective hangars.

17.2.2.2. **(Added)** Appoint, in writing, qualified hangar door training certifiers to conduct OJT for their respective hangars.

17.2.3. **(Added)** Facility Managers will:

17.2.3.1. **(Added)** Ensure preventative maintenance is scheduled at a semi-annual interval and any change to hangar door status will be reported to the MXG Facility Manager.

17.2.3.2. **(Added)** Ensure hangar door operating instructions and emergency checklist are posted to the hangar door IAW DAFMAN 91-203.

17.2.3.3. **(Added)** Maintain a standardized OJT program, operating instructions and emergency checklists.

17.2.3.4. **(Added)** Ensure a red line is painted and stenciled "Full Open" at the end of each hangar door opening. Red line is painted inside of hangar, 10 feet to each side of door center, to indicate the minimum open width.

17.2.3.5. **(Added)** Maintain a list of all appointed and qualified personnel to operate the hangar door. This listing will be posted on the hangar door next to controls.

17.2.3.6. **(Added)** Be responsible for but not limited to, inspection of fire bottles, wash stations, and facility scheduled and unscheduled maintenance.

17.2.4. **(Added)** Hangar Door Operators will:

17.2.4.1. **(Added)** Operate hangar door IAW the applicable hangar door operating instruction.

17.2.4.2. **(Added)** Report any inoperable discrepancy to the facility manager, Production Superintendent, and/or Dock Chief immediately when doors fail to operate. All other discrepancies will be reported to the facility manager prior to the end of shift.

17.2.4.3. **(Added)** Be familiar with hangar door guidance in DAFMAN 91-203.

17.2.4.4. **(Added)** Operate hangar doors to facilitate the towing of aircraft or support equipment. When temperatures are expected to be at or below freezing, the hangar doors and roll up doors will

be opened for the minimum amount of time to facilitate maintenance needs. Users will report heater discrepancies to the facility manager immediately.

17.3. (Added) Aircraft Hangar Training.

17.3.1. **(Added)** Operators must complete the following prior to operating hangar doors:

17.3.1.1. **(Added)** Hangar door awareness is for all personnel, regardless of AFSC, who require access or routinely work in hangar facilities. Hangar Door Awareness Training is an annual requirement and is included in online annual Block Training. This training will be documented in FMXC2 using course code CHAR0098.

17.3.1.2. **(Added)** Receive hand-on OJT Qualification Training prior to being certified on hangar door operation.

17.3.2. **(Added)** Operators will only operate hangar doors that they have been fully trained to open.

17.3.2.1. **(Added)** Operation of hangar door for Bldg. 570 will only be performed by authorized personnel after clearing it with the fuel system supervisor on duty. Operation of building 515 hangar doors will only be performed by authorized aircraft structural maintenance personnel.

17.4. (Added) Aircraft Hangar Operations.

17.4.1. **(Added)** Aircraft Emergency Removal: The Maintenance Supervision of the applicable hangar(s) is the OPR for the aircraft emergency removal procedures.

17.4.1.1. **(Added)** Maintenance personnel will immediately evacuate the facility if the fire suppression alarm sounds. The highest-ranking individual will account for all personnel and immediately notify MOC, Production Superintendent and Facility Manager.

17.4.1.2. **(Added)** Maintenance personnel will not enter a hangar until determined to be safe by the Incident Commander (Fire Chief) if the fire suppression system was activated.

17.4.1.3. **(Added)** Emergency aircraft removal procedures will be posted inside all tow vehicles and conspicuously placed inside hangars 700, 570, 63, 519, 515, and 532.

17.4.1.4. **(Added)** Only members who are qualified to perform aircraft tows in My Training will participate in emergency tow operations.

17.4.1.5. **(Added)** Emergency tow training will be conducted annually and tracked in FMXC2 using course code CHAR00001.

17.4.2. **(Added)** The unit possessing the aircraft in FMXC2 is responsible for the aircraft while in the hangar.

17.4.2.1. **(Added)** Personnel will ensure unattended AGE and vehicles are not left in front of aircraft hangars doors with aircraft present to ensure a clear route for emergency aircraft tow procedures.

17.4.2.2. **(Added)** All AGE will be returned to AGE storage locations within 6 hours when aircraft are removed from the hangar. As an exception, necessary AGE for aircraft scheduled to be parked in a hangar within 6 hours may be left outside of the hangar, clear of wingtip clearance lines.

17.4.3. **(Added)** Hangar doors will be closed when the hangar is unattended.

Chapter 18 (Added)

MAINTENANCE FALL PROTECTION RESCUE PLAN

18.1. (Added) Overview. This chapter outlines the training requirements, standards, and practices of fall protection.

18.2. (Added) Training Requirements.

18.2.1. **(Added)** Initial fall protection, Personal Fall Arrest System (PFAS) inspection/use, procedures for safety belts, straps, and harnesses, and Fall Rescue Training will be conducted upon assignment to unit. Refresher training will be conducted annually. Training will be entered into unit's Job Safety Training Outline and documented in FMXC2.

18.2.2. **(Added)** Four (4) feet or more to the next lower level.

18.2.3. **(Added)** Personnel will perform and document pre-use inspections on restraint/PFAS equipment 244s.

18.2.4. **(Added)** Personnel will wear the appropriate PFAS when required to work at height elevations with the potential of falling:

18.2.4.1. **(Added)** Regardless of height into unguarded machinery or dangerous equipment.

18.3. (Added) Rescue Plan.

18.3.1. **(Added)** Anytime personnel are working at elevations requiring the use of PFAS, a two (2) personnel system will be utilized to render aid and have an available radio for emergency communications. If a radio is unavailable, a third person will be required to act as a runner.

18.3.2. **(Added)** Personnel one – Individual donning PFAS

18.3.3. **(Added)** Personnel two – Ground observer

18.3.4. **(Added)** Personnel three – Runner (if required-no radio available)

18.3.5. **(Added)** Prior to ascending to the working surface, all personnel will determine a plan of action and ensure availability of equipment in the event of a fall.

18.3.6. **(Added)** When working on the wing or fuselage, equipment capable of reaching maintenance working height will be available within a 6-minute response time.

18.3.7. **(Added)** When working on the T-tail, an operational high reach capable mobile platform (i.e., High reach JLG) with a qualified ground observer/operator will be available within one spot, left or right, of the aircraft.

Chapter 19 (Added)

C-17 ENGINEERING DISPOSITION (ED) PROCESS

19.1. (Added) Overview This chapter describes general information and responsibilities of the C-17 ED process.

19.2. (Added) General Information.

19.2.1. **(Added)** An ED is used to document and detail the process by which specific maintenance actions will be accomplished when TO procedures are not available/adequate or to justify flight approval.

19.2.2. **(Added)** Requesting VECTOR access:

19.2.2.1. **(Added)** User must email **c17vectoradmin@boeing.com** to request profile/access to Boeing VECTOR site.

19.3. (Added) Responsibilities.

19.3.1. **(Added)** Maintenance Supervision will:

19.3.1.1. **(Added)** Ensure sufficient personnel within each unit have a USERID/Password.

19.4. (Added) General Sequence of Events.

19.4.1. **(Added)** Requesting Organization initiates Requested for Engineering Disposition Instruction (REDI) via Boeing VECTOR IAW 00-25-107. **https://bpn.boeing.com/ReverseProxy/Authentication.html**

19.4.2. **(Added)** QA will review all submitted REDIs for validity before submission to Boeing engineers.

19.4.3. **(Added)** A Boeing engineer will be assigned to submitted REDI for Engineering Disposition (ED).

19.4.4. **(Added)** Once engineering concurrence, engineers will publish an ED via VECTOR back to originating organization.

Chapter 20 (Added)

MOBILE MAINTENANCE PLATFORM OPERATION

20.1. (Added) Powered Mobile Platforms (e.g., scissor lifts, bucket lifts, UMS, JLG, GENIE etc.).

20.1.1. **(Added)** Powered mobile platforms that are capable of more than one speed must use the lowest speed mode when operating within 15 feet of the aircraft.

20.1.2. **(Added)** Higher speed modes may be used while maneuvering the platforms from one side of the aircraft to the other, but only after clearing the aircraft structure by 15 feet, and path of travel.

20.2. (Added) Spotters.

20.2.1. **(Added)** All powered mobile platforms are required to have at least one spotter while operating within 10 feet of an aircraft structure (i.e., fuselage landing gear doors, engine, wing). One spotter can spot up to 3 GENIE 1930 and 1930ES.

20.2.2. **(Added)** Are required to be trained/qualified on the equipment they are spotting to ensure proper execution of the fall rescue plan if the situation arises.

20.2.3. **(Added)** Must be familiar with emergency stop procedures in situations where a collision is imminent.

20.2.4. **(Added)** Will have a chock available and will place the chock on the ground at a prepositioned location that will prevent the maintenance platform from striking the aircraft. Exception: GENIE 1930 or 1930ES does not require a chock walker due to built-in safety features and internal braking system.

20.2.5. **(Added)** Communication must be maintained with operators at all times. Spotters will maintain line of sight of the operator if using verbal or hand signals. If line of sight cannot be maintained, two-way communication will be established.

20.3. (Added) PPE.

20.3.1. **(Added)** Operators and passengers will wear hard hat or bump cap while the platform is in motion underneath an aircraft structure. When stationary, the hard hat or bump cap may be removed to perform duties.

20.4. (Added) Mobile Maintenance Platform Training.

20.4.1. **(Added)** Work centers will establish a specific training plan to train all operators and spotters on applicable mobile maintenance platforms.

20.4.2. **(Added)** Work centers may request an AGE familiarization training session from the Field Training Detachment by emailing **373trsdet5.tabi@us.af.mil**

20.4.3. **(Added)** Minimum work center training requirements:

20.4.3.1. **(Added)** Procedures for equipment checkout and operation. Each operator will be qualified to perform spotter responsibilities.

20.4.3.2. **(Added)** Review pertinent information within DAFMAN 91-203 and have a complete understanding of all applicable equipment safety features.

20.4.3.3. **(Added)** Platform training will be documented in FMXC2:

20.4.3.3.1. **(Added)** AGE 000019 – Universal Maintenance Stand (Magic Carpet)

20.4.3.3.2. **(Added)** AGE 000036 – JLG High Lift (Electric and gas)

20.4.3.3.3. **(Added)** AGE 000037 – Self-propelled Servicing Platform Man Lift (Genie Engine)

20.4.3.3.4. **(Added)** AGE 000049 – Single Man Lift (GENIE 1930 Scissor Lift)

20.4.3.3.5. **(Added)** AGE 000048 – GENIE Z-30/20N RJ Boom Lift (Electric)

Chapter 21 (Added)

ADVERSE WEATHER PROGRAM

21.1. (Added) Adverse Weather Notification/Procedures. When the Maintenance Operations Center/Air Terminal Operations Center (MOC/ATOC) receives notification of weather Advisories/Warnings for adverse weather conditions (includes strong or damaging surface winds, heavy rain, heavy snowfall, freezing precipitation, thunderstorms, lightning, and hail) they will broadcast the current/forecasted wind conditions over all radio nets and MOC will notify fuels system maintenance by telephone. Weather information can be gained by MOC on the radio and phone x8500 or calling (843) 554-9862. Aircraft doors, windows, and hatches must be closed when no personnel are present on aircraft.

21.2. (Added) Condition Requirements.

21.2.1. **(Added)** Hurricanes are not all inclusive and may overlap depending on the current weather in moving towards Joint Base Charleston. HURCON categories:

21.2.1.2. **(Added)** HURCON IV: Sustained 50 knot winds or greater are possible within 72 hours.

21.2.1.3. **(Added)** HURCON III: Sustained 50 knot winds or greater are possible within 48 hours.

21.2.1.4. **(Added)** HURCON II: Sustained 50 knot winds or greater are possible within 24 hours.

21.2.1.5. **(Added)** HURCON I: Sustained 50 knot winds are possible within 12 hours.

21.2.2. **(Added)** Icing. Conditions when frost, ice, or snow is or has potential to accumulate on aircraft surfaces at ground level.

21.2.3. **(Added)** Thunderstorms. Heavy rains or hail, typically accompanied by strong winds, which could result in damage or water saturation.

21.2.4. **(Added)** Lightning. When lightning is forecasted within the predetermined location, 5 nm of KCHS / KXNO:

21.2.4.1. **(Added)** A lightning watch effect starts 30 minutes prior to thunderstorm being within 5nm.

21.2.4.2. **(Added)** A lightning warning is in effect when lightning occurs within 5 nm.

21.2.5. **(Added)** Extreme Heat. Heat index of 90 degrees Fahrenheit or more.

21.2.6. **(Added)** Fog/Limited Visibility. Visibility of 300 feet or less.

21.3. (Added) Responsibilities During Adverse Weather Conditions.

21.3.1. **(Added)** MOC/ATOC:

21.3.1.1. **(Added)** When the senior controller/duty officer receives a weather warning, they will comply with all steps in the severe weather checklist.

21.3.1.2. **(Added)** Will broadcast weather watches, warnings and advisories to all duty sections. Document all actions in the senior controller’s log once notification is received.

21.3.2. **(Added)** Production/Shift Supervisor will ensure all preparation actions are completed for the applicable weather condition forecasted. Supervisors may utilize a portable anemometer

(wind gauge) to determine current wind speeds at the specific location where a maintenance/logistics action will be performed.

21.3.2.1. **(Added)** Production Superintendent will ensure all aircraft are secured (hatches and doors) and all AGE that poses a hazard are removed from the parking apron and stowed IAW QRC 65G "*Adverse Weather Checklist"* and this instruction.

21.4. (Added) Adverse Weather Procedures.

21.4.1. **(Added)** The following procedures in Table **21.1, 21.2, and 21.3** are applicable to gusting and sustained wind conditions.

Table 21.1. Winds 20-30 Knots.

Preparation for Winds 20-30 Knots	**Winds 20-30 Knots**
Ensure engine accessory doors are not opened/closed when winds are gusting to 30 knots or more. IAW T.O. 1C-17A-2-54JG-10-1.	Ensure all aircraft precautionary actions are taken IAW applicable T.Os, Directives, and Publications. Cease Aircraft fuselage jacking operations, and lower aircraft on jacks. Do not perform maintenance on horizontal stabilizer.
Stow non-powered AGE is not use in designated ready lines.	Ensure all non-essential AGE and other loose equipment is removed from the flightline and secured. (Except fire extinguishers)
Close and secure aircraft windows and doors. Secure crew entry door with 25k lbs. cargo chain during maintenance activities.	If aircraft is not being worked, ensure all RADOMES, canopies, and access panels/doors are closed and secured.
	(DELETED)
	Suspend use of boom lifts (Condors, Genies, Simons, JLG) and B-2 stands.
	Cease all outdoor fuel system in-tank operations and secure all fuel tank access panels.

Table 21.2. (Added) Winds 31-50 Knots.

Preparation for Winds 31-50 Knots	Winds 31-50 Knots
Secure all AGE ready lines with hurricane cable.	In addition to high wind precautions secure all materials and maintenance equipment. Suspend operations requiring use of split deck (Magic Carpet), B-1, B-4, B-5 and B-7 maintenance stands.
Hangar transient helicopters and small aircraft as practical.	Hangar all aircraft with less than 15,000 pounds gross weight (i.e., engines removed, no fuel, helicopters, small aircraft) Discontinue all activities not required to safeguard aircraft when winds are projected or greater than 40 knots.
	Hangar all aircraft with canopies and/or RADOMES removed.
	Aircraft should be triple chocked and laced. Cease all top of wing/fuselage maintenance. Discontinue integral jack operations.
Secure area around buildings (trash cans, etc.) MXS: Secure aircraft in Heritage Park and Parade area.	Secure all equipment. Lay down all aircraft fire extinguishers. Hangar all aircraft with canopies and/or RADOMES removed.
	Aircraft should be triple chocked and laced. Cease all top of wing/fuselage maintenance. Discontinue integral jack operations.

Table 21.3. (Added) Winds Over 50 Knots.

Preparation for Winds Over 50 Knots	Winds Over 50 Knots
Moor aircraft, if required, IAW TO 1C-17A-2-10JG-10-1.	In addition to high wind precautions, have all nonessential personnel move to shelter or remain in their duty section. **Warning:** Do not open canopy hatch or any access door or remove any covers when winds are in excess of 50 knots.
Ensure all AGE is removed from the parking ramp and relocated to the AGE ready line.	ALL AGE must be removed from flightline. Maximum number of aircraft will be towed into hangars.
	All non-essential personnel will seek shelter or remain inside their duty sections.
	For winds in excess of 70 knots, moor aircraft IAW applicable TOs; clear ramp.
	Consider evacuation of aircraft. Medium and heavy aircraft in docks or extending outside hangars will be towed clear and parked IAW applicable aircraft TOs.

21.4.2. **(Added)** Hurricanes. Hurricanes are weather disturbances with winds of 64 knots (75 MPH) or greater. A HURCON is based on the forecasted arrival of winds exceeding 50 knots and a severe storm is expected within 72 hours or within 750 nautical miles and moving towards Joint Base Charleston. HURCON categories:

21.4.2.1. **(Added)** HURCON IV: Sustained 50 knot winds or greater are possible within 72 hours.

21.4.2.2. **(Added)** HURCON III: Sustained 50 knot winds or greater are possible within 48 hours.

21.4.2.3. **(Added)** HURCON II: Sustained 50 knot winds or greater are possible within 24 hours.

21.4.2.4. **(Added)** HURCON I: Sustained 50 knot winds are possible within 12 hours.

21.4.3. **(Added)** The Wing Crisis Action Team (CAT) will initiate HURCON procedures up to the evacuation decision through the MOC/ATOC. Due to rapidly changing conditions during a hurricane, some items may be accomplished earlier or omitted altogether. Always follow the direction from the CAT. Electrical power is usually lost during hurricane conditions. Personnel should be aware that items placed in hangars may be difficult to retrieve due to the hangar doors losing power. A suitable tow vehicle with equipment to manually open hangar doors should be placed so that it may be removed from the hangar by use of a manually operated roll up door. This vehicle may then be used to open the larger doors and other facilities after the hurricane has passed.

21.4.3.1. **(Added)** The following items will be called out from the CAT as they perform the Hurricane Evacuation (HUREVAC) checklist and are listed below for quick reference purposes.

21.4.3.1.1. **(Added)** Secure all facilities.

21.4.3.1.2. **(Added)** Remove non-mission essential AGE units from flight-line. Stow all palletized cargo in elevating transfer vehicle. Park all aircraft, vehicles, and support equipment in accordance with hurricane vehicle dispersal plan location.

21.4.3.1.3. **(Added)** MXS, Repair and Reclamation Section will remove the C-17A model from the pedestal located in front of the 437 AW Headquarters, building 16000, and secure it.

21.4.3.1.4. **(Added)** CE will remove the C-141 model from the pedestal located in front of the Starlifter Bowling Center and secure it.

21.4.3.1.5. **(Added)** MXS will remove munitions from flightline storage locker.

21.4.4. **(Added)** Cold Weather. Conditions when frost, ice, or snow is or has potential to accumulate on aircraft surfaces at ground level.

21.4.4.1. **(Added)** Personnel identifying icing conditions prior to a weather advisory will notify the MOC/ATOC.

21.4.4.2. **(Added)** Close and secure aircraft windows and doors. Crew door may remain open during maintenance operations.

21.4.4.3. **(Added)** Suspend maintenance activities on upper surface of aircraft and APS high lines until ice, snow, or frost is removed.

21.4.4.4. **(Added)** AMXS will ensure de-icing vehicles are filled with fluid from 1 November through 31 March and be prepared to respond to de-icing requirements. Viper CTK will ensure adequate quantities of de-icing fluid is stocked.

21.4.4.5. **(Added)** AMXS will maintain an adequate number of qualified de-icing vehicle and hi-lift operators.

21.4.4.6. Hangar and Bay doors should remain closed. Open hangar and bay doors only when required for aircraft or vehicle movement; afterwards close them at the earliest opportunity.

21.4.4.7. **(Added)** Reference DAFI 48-151, *Thermal Injury Prevention Program,* for guidance on preventing/treating thermal injuries.

21.4.5. **(Added)** Extreme Heat. Heat index of 90 degrees Fahrenheit or more.

21.4.5.1. **(Added)** Supervisors will ensure adequate water supply is available for all personnel.

21.4.5.2. **(Added)** Reference work/rest cycles DAFI 48-151, and all applicable supplements.

21.4.6. **(Added)** Fog/Limited Visibility. Visibility of 300 feet or less.

21.4.6.1. **(Added)** Reference DAFMAN 91-203 for restricted visibility/night operations.

21.4.6.2. **(Added)** Visibility less than 100 feet:

21.4.6.2.1. **(Added)** PMVs/flight line vehicles, except emergency/alert vehicles, will not be operated on the flight line.

21.4.6.3. **(Added)** Visibility less than 50 feet:

21.4.6.3.1. **(Added)** Suspend all maintenance engine runs.

21.4.6.3.2. **(Added)** Personnel should refrain from standing on or near taxiways and walking across the flight line.

21.4.6.3.3. **(Added)** Personnel should remain within 10 feet of the aircraft whenever possible.

21.4.6.3.4. **(Added)** A walking guide with a flashlight or luminescent wand will be used during emergency movement of alert vehicles.

21.4.7. **(Added)** Inclement Weather.

21.4.7.1. **(Added)** Close and secure aircraft windows and doors. If aircraft is being worked, crew entry door may remain open, and doorsteps will be weighed down with a 25k lbs. cargo chain.

21.4.7.2. **(Added)** Lightning. When lightning is forecasted within the predetermined location, 5nm of KCHS / KXNO: A lightning watch effect starts 30 minutes prior to lightning being within 5nm. A lightning warning is in effect when lightning occurs within 5nm.

21.4.7.2.1. **(Added)** In addition to the requirements in DAFMAN 91-203, the following procedures in **Table 21.4** will apply:

Table 21.4. Lightning.

Potential for Lightning Within 5nm (Watch)	Lightning Within 5nm (Warning)
Initiate controlled termination of all activities related to the handling and movement of munitions.	Cease all activities related to the handling and movement of munitions.
Close all hangar doors to the 10ft minimum open clearance lines when aircraft are present and maintenance is actively being performed.	Fully close all hangar doors (including roll-up/personnel doors) when aircraft are present and maintenance is actively being performed.
Personnel not actively performing or involved in maintenance/logistics actions should seek shelter in any of the listed locations IAW DAFMAN 91-203.	Suspend all flightline maintenance activities. Suspend all exterior activities for aircraft parked in docks or extending outside of hangars.
	Personnel within the maintenance group complex will remain in-place until the weather advisory is lifted.

SAMUEL M. TODD, Colonel, USAF
Commander, 437th Airlift Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DAFI 21-101_AMCSUP, *Aircraft and Equipment Maintenance Management,* 15 July 2024

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

DAFI 48-151, *Thermal Injury Prevention Program,* 2 May 2022

AFMAN 11-2C-17 Volume 3 Addenda A, *C17 Configuration and MSN Planning,* 08 July 2024

DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards,* 25 March 2022

DAFMAN 90-161, *Publishing Processes and Procedures*

TO 1C-17A-5-1, *Sample Basic Weight Checklists* 01 July 2024

TO 1C-17A-5-2, *Loading Data* 01 July 2024

TO 1-1-691, *Cleaning and Corrosion Control*

T.O. 1-1B-50, *Joint Service Technical Manual Organizational, Intermediate and Depot Maintenance Aircraft Weight and Balance* 13 June 2024

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

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

TO 1C-17A-6, *Inspection Requirements Manual* 21 October 2024

Prescribed Forms

(**Added**) 437 MXG Form 1, *Lost Tool/Item Report*

(**Added**) 437 MXG Form 2, *C-17 Depot Prep Checklist*

(**Added**) 437 MXG Form 3, *FCF, OCF, HST Checklist*

(**Added**) 437 MXG Form 4, *Broken/Removed/Damaged Tool Log*

(**Added**) 437 MXG Form 5, *Impoundment Alert Page*

(**Added**) 437 MXG Form 6, *Impound Log*

(**Added**) 437 MXG Form 7, *Impound Checklist*

(**Added**) 437 MXG Form 8, *Dropped Object Report*

(**Added**) 437 MXG Form 9, *Foreign Object Damage Report*

(**Added**) 437 MXG Form 10, *C-17A Aircraft / F117-100 Engine Blade Blending Worksheet*

(**Added**) 437 MXG Form 11, *JST Submission Request Form*

(**Added**) 437 MXG Form 12, *MICAP Checklist*

(**Added**) 437 MXG Form 13, *Aircraft Document Review Checklist*

(**Added**) 437 MXG Form 14, *Hangar Queen Checklist*

Adopted Forms

DD Form 2875, *System Authorization Access Request (SAAR)*

DD Form 1348-1A *Issue Releaser/Receipt Document*

DD Form 1348-6 *Single Line Item Requisition System Document*

DAF Form 847, *Recommendation for Change of Publication*

AF Form 2005, *Issue Turn-In Request*

AF Form 1800*, Operator's Inspection Guide and Trouble Report*

AF Form 1297, *Temporary Issue Receipt*

AF IMT 2410, *Inspection/TCTO Planning Checklist*

AFTO Form 978, *Ground Mishap Report*

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

AFTO Form 350, *Name*

AFTO Form 244, *Industrial/Support Equipment Record*

AFTO Form 134, *Aviator Breathing Oxygen Servicing Trailer Log*

AFTO Form 95, *Significant Historical Data*

AFTO Form 20, *Name*

Abbreviations and Acronyms

(Added) AFRIMS—Air Force Records Information Management System

(Added) JBD—Source Code for Local Manufactured Tool

(Added) REDI—Request for Engineering Disposition Instruction

(Added) RCA—Root Cause Analysis

Terms

(Added) Unattended—Maintenance personnel with responsibility of the tools, equipment, and CTKs/TKs are not present or located within the aircraft parking spot, vehicle, or work center.

Attachment 12 (Added)

RADIO CALL SIGNS

Table A12.1. (Added) Radio Call Signs.

Position	Call Sign	Position	Call Sign	Position	Call Sign
437 MXG/CC	Maintenance 1	**Blue AFIN/CNAV**	Blue 7	**HSC Jets**	Maverick 18
315 MXG/CC	Palmetto 1	**Blue/Gold Expediter Support Truck**	Blue/Gold 9	**ELEN**	Maverick 22
437/315 MXG/CD	Maintenance 2	**MASOP Superintendent/OIC**	MASOP 1	**NDI**	Maverick 23
437/315 MXG Superintendent	Maintenance 3	**MASOP NCOIC**	MASOP 2	**PMEL**	PMEL
MXG QA Superintendent	QA 1	**MASOP Pro Super/Expediter**	MASOP 3	**Avionics**	Avionics
MXG QA Chief Inspector	QA 2	**MASOP CTK**	MASOP Base	**CTK/Rail Shop**	Viper-21
MXG QA	QA	**MXS/CC**	Maverick 1	**APS/CC**	APS 1
MQTP Instructors	Tiger 1, 2, 3	**MXS Ops Officer**	Maverick 2	**APS Chief**	APS 2
MXG GCC	Mobility 1, 2	**MXS Chief**	Maverick 3	**OPS Officer**	OPS 1
Transient Alert	Golf 1-5	**MXS Pro Super**	Maverick 4	**Asst. OPS Officer**	OPS 2
Wash Rack	Wash Rack	**Hydraulics**	Maverick 6	**Dirty Fleet/LST**	Fleet 55
AMXS/CC	Cobra 1	**AGE Control**	Maverick Control	**Clean Fleet/Meals**	Fleet 53
AMXS/MOO	Cobra 2	**HSC**	Maverick 7	**Pax Dispatch**	Pax Control
AMXS/Supt	Cobra 3	**Aero Repair**	Maverick 9	**#1 Duty Officer**	ATOC 11
Blue/Gold Supervision	Blue/Gold 1	**Wheel & Tire**	Maverick 10	**#2 Duty Officer**	ATOC 12

Blue/Gold Leap Pro Super	Blue/Gold 4	**Munitions**	Maverick 11	**ATOC**	ATOC
Blue/Gold Pro Super	Blue/Gold 5	**Structures**	Maverick 12	**ATOC Ramp Control**	ATOC 13
Blue/Gold APG Expediter	Blue/Gold 6	**MTECH**	Maverick 13	**Special Handling**	Special
Gold Jets/ELEN	Gold 7	**Fuel Cell**	Maverick 14		

Attachment 13 (Added)

RADIO CHANNELS

Table A13.1. (Added) Radio Channels.

Ch	Zone A	Zone B	Zone C
1	CC Net	DCG	VIPER, Life Support, AMXS Control, MASOP
2	SFS PRIMARY	AIR BOSS	MXS, Trans Alert
3	Fire Primary	STATIC	BLUE
4	Med Primary	BLUE ANGEL	GOLD
5	CE Primary	CON 1	TOW
6	CERED	CON 2	UNUSED
7	EOD Primary	CON 3	MUNITIONS
8	BASE OPS	CON 4	UNUSED
9	FUEL Primary	VIPER	UNUSED
10	LRS	MAVERICK	UNUSED
11	MUNITIONS	BLUE	UNUSED
12	APS PRIMARY	GOLD	UNUSED
13	CMD POST	UNUSED	UNUSED
14	OSE	TOW	UNUSED
15	CAT	MUNITIONS	TOWER
16	OTAR	OTAR	OTAR

Attachment 14 (Added)

JOB CONTROL NUMBER (JCN) ASSIGNMENT

Table A14.1. (Added) JCN Assignment.

JCN	FUNCTION	SQUADRON
Informational Notes		
0001-0099*	Will be used to identify the DCC & ADCC, and Base Aircraft is assigned. Any JCN within the range specified may be used for this note.	
0100-0299*	Will be used for notes placing the aircraft on certain restrictions.	
0300-0599*	Will be used for 'system test program' such as 'test equipment installed'.	
0600-0999*	Will be used for 'informational' notes.	
A001-D999*	Do Not Use	
E001-E999*	Home Station Check #1 HSC	MXS
F001-F999*	Home Station Check #2 HSC	MXS
G001-G999*	Home Station Check #3 HSC	MXS
H001-H999*	Home Station Check #4 HSC	MXS
J001-J999*	Home Station Check #5 HSC	MXS
K001-K999*	Home Station Check #6 HSC	MXS
0001-0199	Servicing / Support	AMXS / MXS
0200-0299	Pre-Flight (PR) Inspection	AMXS / MXS
0300-0399	Thru-Flight (TH) Inspection	AMXS
0400-0499	BPO / Pre-Flight (BPO/PR) Inspection	AMXS
0500-0599	SPRO Inspection Package	AMXS
0600-0799	Engine Management	Boeing
0900-1299	Debrief / Local Returns (Pilot Reported Discrepancies)	AMXS
1400-1599	PS&D	MXO
1600-1699*	-6 Inspection / Time Change / Special Inspection	MXO
1700-1710*	Oil Consumption (Program 9053)	AMXS
1711-1749	Aircraft Wash	AMXS / MXS
1750-1849	FOB / OB	MXO
1850-5199	Local Job Standard Packages	ALL
5200-5299*	CANN Jobs	AMXS / MXS
5300-5325*	Off-Shore support (See FMXC2 restricted JCN list for remarks)	MXO
5326-5330*	Impoundment JCN	AMXS / MXS
5331-5349*	FMXC2 Generated; Component Removed by Different Base	
5350-5399*	Power on Pre-Flight	AMXS/MXS
5400-6499	Not used	
6000-6099	Training	MXO / FTD
6100-6499	Not used	
6500-6899*	Refurb	MXS
6900-6999	Not used	
7000-7999	Boeing / Test Equipment / Propulsion Special Equipment	Boeing / RAMS
8000-8099	Not used	

8100-8199*	ADITS Jobs	
8200-8899	Not used	
8900-8999*	618 AOC/GADM Assigned JCN's via GDSS2	
9000-9499	Not used	
9500-9699*	TCTO	MXO
9700-9799	Aircraft Automated Systems	
Note: * indicates restricted JCN in FMXC2.		

Attachment 15 (Added)

KNOCK-IT-OFF CARD

Figure A15.1. (Added) Knock-It-Off Card.

Front

KNOCK IT OFF

MISHAP PREVENTION STEPS

START: SAY "KNOCK IT OFF!"

SAFE: Stop the activity.

STATE: State your concern. How worried are you?

SOLICIT: Get inputs from everyone.

SOLVE: State your solution if you have one.

SETTLE: Come to an agreement everyone is comfortable with.

Don't Risk It! Use "KNOCK IT OFF!" to alert other team members of potential for incident, injury, or mishap.

Back

Pre-task Briefing

For single or multiple person tasks, answer these questions prior ot starting a task:

- What T.O. do I need? Is it current?
- Personnel: Who do I need? Who is doing what? Are they qualified? Do they have required/serviceable PPE?
- What are the tools/test/special/ support equipment that I need? Are they calibrated? Serviceable? Are the inspections current?
- What are the hazards to watch for (Think T..O. Cautions & Warnings)?
- What forms documentation is required before, during, and after?
- What are the current environmental concerns: heat or cold, lighting, wind, weather, indoor/outdoor, etc?
- What are input/concerns of each individual team member?

Attachment 16 (Added)

HEARING PROTECTION CARD

Figure A16.1. (Added) Hearing Protection Card.

437th and 315th MXG

Single Hearing Protection

APU	**100ft**
Fwd of Eng @ Idle	**800ft**
Side of Eng @ Idle	**800ft**
Aft of Eng @ Idle	**300ft**
Eng @ Power	**1000ft**
Powered AGE	**25ft**
-95 Gen	**150ft**
Powered MHE	**10ft**

437th and 315th MXG

Double Hearing Protection

Note: Each aircraft parking spot is approximately 200 ft.

APU	**40ft**
Fwd of Eng @ Idle	**100ft**
Side of Eng @ Idle	**100ft**
Aft of Eng Idle	**100ft**
Eng @ Power	**600ft**
-95 Gen	**25ft**

Attachment 17 (Added)

MASTER FORMS BINDER ARRANGEMENT

A17.1. (Added) IAW TO 00-20-1, aircraft forms binders will be arranged in the following order.

A17.1.1. **(Added)** AMC Form 498, Classified Equipment Installed, is used when classified equipment is installed on the aircraft. This form will be placed on the outside cover of the form's binder (inside a clear card cover).

A17.1.2. **(Added)** AFTO Form 781F, *Aerospace Vehicle Flight Report and Maintenance Record*, serves as identification for the binder of a particular aerospace vehicle. Insert this form into a clear page holder.

A17.1.3. **(Added)** Each form after the AFTO Form 781F, will be preceded by a tabbed divider labeled to identify each form in binder.

A17.1.4. **(Added)** AFTO Form 781B, *Communication Security Equipment Record* (when COMSEC equipment installed).

A17.1.5. **(Added)** AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document.*

A17.1.6. **(Added)** AFTO Form 781H, *Aerospace Vehicle Flight Status and Maintenance Document.*

A17.1.6.1. **(Added)** IAW T.O. 00-20-1, Blocks 10 and 11 on the AFTO Form 781H will be altered as follows:

A17.1.6.2. **(Added)** Block 10: “ENGINE CYCLE DOCUMENTATION” will be lined through, as it is not used.

A17.1.6.3. **(Added)** Block 11: “PRESS OR” and “OIL” units of measure will be lined through except for “quarts.” “SERVICING DATA” will have engine numbers 5 through 8 lined through with “APU” inserted above the number “8.” Additionally, “NITROGEN” and “WATER” will be lined through. A “C” above “Oxy Press or Qty,” a “P” above “Nitrogen,” and an “A” above “Water” will be added to signify aircraft Crew, Passenger, and Auxiliary oxygen converter quantities, respectively.

A17.1.7. **(Added)** AFTO Form 781A, *Maintenance Discrepancy and Work Document*.

A17.1.8. **(Added)** 437 MXG Form 2, *C-17 Depot Prep Checklist,* will be placed in the front of the AFTO Forms 781A when undergoing PDM input/return preparations or when applicable.

A17.1.9. **(Added)** Notes page will have current navigational database version and validity period annotated.

A17.1.10. **(Added)** AFTO Form 97/97A/97B, *Aerospace Vehicle Battle Damage Incident Debrief/Assessment/Repair Record, CONT, Checklist* (In contingency ops, where potential battle for damage exists).

A17.1.11. **(Added)** AFTO Form 781K, *Aerospace Inspection Status, Engine Status, Calendar and Hourly Inspection Schedule, Delayed Discrepancies, Urgent Action, and Outstanding Routine TCTO*, (Automated FMXC2).

A17.1.12. **(Added)** AFTO Form 781J, *Aerospace Vehicle - Engine Flight Document*.

A17.1.13. **(Added)** AFTO Form/IMT 781C, *Avionics Configuration and Load Status Document,* ALE-47 Equipment.

A17.1.14. **(Added)** Waivers, and Engineering Dispositions (EDs) will be placed in a clear document protector.

A17.1.15. **(Added)** Last four AMC Forms 278 or MIS generated report (Screen 9032C inquiry) showing last four sorties' aircrew discovered discrepancies.

A17.1.16. **(Added)** TCTO Status Report for Aircraft.

A17.1.17. **(Added)** Test Information – Place all test information after the TCTO Status Page.

A17.1.18. **(Added)** AF Form 664, *Aircraft Fuels/Ground Servicing Documentation Log*.

A17.1.19. **(Added)** AF Form 4076, *Aircraft Dash 21 Equipment Inventory*. Place the original copy, and at least two extra blank copies, into a clear document protector.

A17.1.20. **(Added)** Julian Date Calendar.

A17.1.21. **(Added)** AFTO Form/IMT 781M, S*tatus Symbols and Functional System Codes*. Insert this form in a clear document protector.

A17.1.22. **(Added)** JCN Assignment **Table A14.1**.

A17.1.23. **(Added)** **Attachment 17**, Master Forms Binder Arrangement.

A17.1.24. **(Added)** AFTO Form/IMT 781G, *General Mission Classifications Mission Symbols*.

Attachment 18 (Added)

EQUIPMENT IDENTIFICATION DESIGNATORS

Table A18.1. (Added) Equipment Identification Designators.

Maintenance Squadron (MXS)	
AGE	CLMG
HSC	CLMX
SMCO	CLMC
Metals Tech	CLMM
Avionics	CLAI
NDI	CLMN
Fuels	CLFC
Hydraulics	CLHS
Electro-Enviro	CLEE
Munitions	CLMW
Repair & Reclamation, CDDAR, Wheel & Tire	CLWT
PMEL	CLMD
Aircraft Maintenance Squadron (AMXS)	
Sortie Support	CLAS
Viper 21	CLAV
Mobility	CLAD
MASOP	CLAM
Aerial Port Squadron (APS)	
Ramps	CLAP
Maintenance Group Staff/Field Training Detachment/Contractors	
Maintenance Qualification Training Flight	CLTF
Quality Assurance	CLQA
Field Training Detachment	CL37
Aircraft Wash Contractors	CLWA
Boeing RAMS	CLRM
Transient Alert	CLTA
Mission Support Group (MSG)	
Civil Engineering Squadron	CLCE
Fire Department	CLFD
Logistics Readiness Squadron	CLLR
Security Forces Squadron	CLSF
Operations Group (OG)	
14th Airlift Squadron	CL14
15th Airlift Squadron	CL15
16th Airlift Squadron	CL16
317th Airlift Squadron	CL17
701st Airlift Squadron	CL70
Life Support	CLLS
Air Drop	CLOX
Aircrew Flight Equipment (AFE)	CLMS

Attachment 19 (Added)

JB CHS PARKING PLAN

Figure A19.1. (Added) JB CHS Parking Plan.