BY ORDER OF THE COMMANDER
452 AIR MOBILITY WING

AIR FORCE INSTRUCTION21-101_AFRCSUP_452AIR MOBILITY WING SUPPLEMENT

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Maintenance

AIRCRAFT AND EQUIPMENT MAINTENANCE MANAGEMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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(Col James L. Hartle)

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This supplement implements Air Force Instruction (AFI) 21-101, *Aircraft and Equipment Maintenance Management,* with AFRC Supplement 1. This supplement describes 452d Air Mobility Wing (AMW) procedures to be used in conjunction with the basic instruction and AFRC supplement. This instruction is applicable to all personnel with applicable responsibilities in the 452 AMW. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR)listed above using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement.

See AFI 33-360, *Publications and Forms Management,* Table 1.1 for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records

Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This publication has been substantially revised to align with the supplement requirements and must be reviewed in its entirety.

2.4.53.4. **(Added)** Procedures:

2.4.53.4.1. **(Added)** All maintenance accomplished will be documented in applicable aircraft/equipment forms and the MIS no later than the end of the shift on which the work was accomplished. Work center supervisors are responsible for periodically reviewing aircraft/equipment forms and the MIS for all work accomplished. This review will include at a minimum:

2.4.53.4.2. **(Added)** All discrepancies corrected are accurately cleared in the aircraft/equipment forms and the MIS. **Note:** MIS only during paperless inspections.

2.4.53.4.3. **(Added)** All discrepancies discovered are accurately entered in the aircraft/equipment forms and the MIS. **Note:** MIS only during paperless inspections.

2.4.53.4.4. **(Added)** Any work started on a multi-shift job has applicable breaks in maintenance documented in the aircraft/equipment forms and the MIS. (MIS only during paperless inspections).

2.4.53.4.5. **(Added)** Determine if an OCF or FCF is required by using applicable MDS specific TO, directives and/or recommendation by MXG/CC.

2.4.53.5. **(Added)** Production Superintendents will verify the status of aircraft and equipment under their control are accurately reflected in aircraft/equipment forms and the MIS during their shift.

2.12.29.1. **(Added)** All PEs must be tracked in the MIS and/or MAJCOM-approved QA database.

6.11.1.3.1.1. **(Added)** Stamp TCTOs after QA SME review is completed and will reflect date distributed to sub-accounts.

6.11.1.5. **(Added)** The applicable Maintenance Supply entity will be given a file copy of TCTOs to allow supply personnel to research part availability prior to PS&D meetings.

6.11.10. **(Added)** Process:

6.11.10.1. **(Added)** Process hard copy TO revisions, changes, and supplements IAW TO 00-5-1 and/or TO 00-5-15 within two business days of receiving materials.

6.11.10.2. **(Added)** Place TOs and distribution records into the appropriate sub account distribution box located in the QA office upon receipt.

6.11.10.3. **(Added)** Ensure TODAs will sign distribution form or TO log book indicating receipt of all TO materials.

6.11.11. **(Added)** The Technical Order Distribution Account (TODA) will:

6.11.11.1. **(Added)** Check their account distribution box located in the QA office for updates on Tuesday and Thursday of the work week.

6.11.11.2. **(Added)** Post TOs IAW TO 00-5-1 posting time limits not to exceed five duty days upon receipt of TO distribution.

6.13.7. **(Added)** Procedures for Functional Check Flights (FCF)/High Speed Taxi Checks (HSTC)/Operational Check Flights (OCF):

6.13.7.1. **(Added)** Flight duration will be determined by the time required to check the system(s) causing the FCF to be flown. Minimum flight time is approximately one-half hour.

6.13.8. **(Added)** QA Responsibilities: FCF/HSTC/OCF:

6.13.8.1. **(Added)** Maintain "Functional Check Flight Briefing/Debriefing Checklist and Log Sheet".

6.13.8.2. **(Added)** Review corrective action(s) on any discrepancies found during the FCF/HSTC/OCF and clear the inspection entered on the AFTO Form 781A.

6.13.8.3. **(Added)** Ensure the completed FCF checklist is filed with the Aircraft Records for a period of three months or until replaced by a new FCF checklist, whichever is later.

6.13.9. **(Added)** Aircraft Maintenance/Maintenance Squadrons' Responsibilities:

6.13.9.1. **(Added)** Notify QA when an FCF/HSTC/OCF requirement is identified.

6.13.9.2. **(Added)** Request PS&D to coordinate with the 452d Operations Group (OG) representative to schedule an appropriate aircrew (FCF/HSTC/OCF).

6.13.9.3. **(Added)** Coordinate with the Maintenance Operations Center (MOC) the time and date when an aircraft will be flying/performing an FCF/HSTC/OCF.

6.13.9.4. **(Added)** Ensure all maintenance requirements are complied with and the aircraft is configured to fly the FCF; provide QA the aircraft forms prior to the scheduled briefing.

6.13.9.5. **(Added)** A knowledgeable maintenance representative and QA will attend the briefing to answer any questions.

7.6.3.1. Obtain and secure the current aircraft forms and the aircraft jacket file for aircraft, applicable engine work packages for uninstalled engines, the AFTO Form 244 for equipment (or electronic form equivalents) with assistance from PS&D personnel. Restrict access to all paper forms. Attend impoundment brief given by QA office and collect log book.

7.6.4.3. **(Added)** When maintenance has stopped for the day, the impoundment official will ensure the aircraft is sealed and the seal number is recorded in the impound log.

7.6.6. The impoundment official will review aircraft forms/equipment forms/engine build-up package/engine work package and all other associated maintenance documentation and notify 452 MXG/MXQ upon completion. After QA review, the impoundment official will notify 452 MXG/CD, MXG/CC that the aircraft/equipment is ready to be released.

7.6.6.1. **(Added)** Upon release, the impoundment official will return the impound log book to 452 MXG/MXQ, notify MOC, PS&D and analysis to unlock the computer system.

7.6.11. **(Added)** Off-Aircraft Impoundment Procedures for F-108 Engines.

7.6.11.1. **(Added)** In the event an impoundment is required for off-equipment engines, the following guidance will be followed:

7.6.11.1.1. **(Added)** Engine management will immediately print out an automated engine AFTO Form 95, Significant Historical Data and lock out the AFTO Form 95 in GO81.

7.6.11.1.2. **(Added)** The impound official will:

7.6.11.1.2.1. **(Added)** Control access to the engine and the engine build-up work package.

7.6.11.1.2.2. **(Added)** Enter a red "X" and the proper impoundment statement in the AFTO Form 781A located in the engine work package.

7.6.11.1.2.3. **(Added)** Document all impoundment, associated maintenance/inspection actions as well as impoundment release in the engine build-up work package.

7.6.11.2. **(Added)** The impoundment release authority will determine if the engine will be sent to repair while impounded or if the impoundment will be released prior to shipment. If the engine remains impounded, the impoundment release authority will decide if a representative will observe the engine disassembly.

7.6.11.3. **(Added)** Upon release from impound, the impoundment official will deliver the completed engine work package to the engine manager in the plans, scheduling and documentation office.

7.6.12. **(Added)** Off-Aircraft Impoundment Procedures for Pratt/Whitney F117-PW-100 Engines.

7.6.12.1. **(Added)** In the event an impoundment is required for off-equipment engines, the following guidance will be followed:

7.6.12.1.1. **(Added)** The Boeing engine manager will print out an automated engine AFTO Form 95 and lock out the AFTO Form 95.

7.6.12.2. **(Added)** The impoundment official will:

7.6.12.2.1. **(Added)** Control access to the engine and the engine work package.

7.6.12.2.2. **(Added)** Enter a red "X" and the proper impoundment statement in the AFTO Form 781A located in the engine work package.

7.6.12.2.3. **(Added)** Document all impoundment, associated maintenance/inspection actions as well as impoundment release in the engine work package.

7.6.12.3. **(Added)** The Boeing representative and 452 MXS will determine rough estimates of total cost and prepare engine for shipment to Boeing.

7.6.12.4. **(Added)** The impoundment release authority will determine if the engine will be sent for repair while impounded or if the impoundment will be released prior to shipment. If the engine remains impounded, the impoundment release authority will decide if a representative will observe the engine disassembly.

7.6.12.5. **(Added)** Upon release from impound, the impoundment official will deliver the completed engine work package to the PS&D office.

7.6.13. **(Added)** Off Aircraft Impoundment Procedures for KC-135 Boom.

7.6.13.1. **(Added)** In the event an impoundment is required for an off-equipment boom, the following guidance will be followed:

7.6.13.1.1. **(Added)** PS&D will immediately print out an automated boom AFTO Form 95 and lock out the AFTO Form 95.

7.6.13.2. **(Added)** The impoundment official will:

7.6.13.2.1. **(Added)** Control access to the boom and the boom build-up work package.

7.6.13.2.2. **(Added)** Enter a red "X" and the proper impoundment statement in the AFTO Form 781A located in the boom work package.

7.6.13.2.3. **(Added)** Document all impoundment, associated maintenance/inspection actions as well as impoundment release in the boom build-up work package.

7.6.13.3. **(Added)** The impoundment release authority will determine if the boom will be sent to repair while impounded or if the impoundment will be released prior to shipment. If the boom remains impounded, the impoundment release authority will decide if a representative will observe the boom disassembly.

7.6.13.4. **(Added)** Upon release from impound, the impoundment official will deliver the completed boom work package to plans, scheduling and documentation office.

7.6.14. **(Added)** The Impoundment Official will:

7.6.14.1. **(Added)** Read and become familiar with impoundment procedures listed in this instruction.

7.6.14.2. **(Added)** Collect the impoundment logbook from 452 MXG QA for use to aid in the process. Ensure an access control log is created, at a minimum, containing information outlined in this instruction.

7.6.14.3. **(Added)** Run the applicable aircraft/off-equipment impoundment procedures checklist.

7.6.14.4. **(Added)** Ensure the impoundment logbook is returned to 452 MXG/MXQ when the impoundment is released.

7.6.14.5. **(Added)** Coordinate all information for impoundment message to wing safety through the 452 MXG/MXQ section.

7.6.14.6. **(Added)** When maintenance has stopped for the day, the impoundment official will ensure the aircraft is sealed and the seal number is recorded in the impound logbook.

7.6.14.7. **(Added)** When the impoundment official has completed the review of the aircraft forms/equipment forms/engine build-up package/engine work package as required by the investigation, he/she will notify the 452 MXG/CC, MXG/CD and 452 MXG/MXQ when impounded aircraft/equipment is ready to be released.

7.6.14.8. **(Added)** Upon release, the impoundment official will return the impound log book to 452 MXG/MXQ, notify MOC, PS&D and analysis to unlock the computer system.

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

7.6.15.1. **(Added)** Request applicable maintenance squadron to pull all aircraft 781 series forms. This includes the active 781 series forms from the aircraft forms binder and all recently

transcribed 781 series forms and QAR discs (C-17). 452 MXG/MXQ will provide the weight and balance handbook (if requested).

7.6.15.2. **(Added)** 452 MO engine management section or Boeing representatives, as applicable, will provide engine records, oil analysis program (OAP) history, as well as auxiliary power unit (APU) records and/or engine buildup package (if requested).

7.6.15.3. **(Added)** All shops will hand-carry requested records to 452 Plans and Scheduling within one hour of notification.

7.6.15.4. **(Added)** PS&D will run G081 programs: 8005, 8027, and 9032.

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

7.6.16.1. **(Added)** Brief responsibilities to impoundment official per this instruction.

7.6.16.2. **(Added)** Issue impoundment logbook and seals (if applicable) to the impoundment official. Quality Assurance may also act as the subject matter expert (SME) if needed.

7.6.17. **(Added)** Transient/en route Aircraft.

7.6.17.1. **(Added)** The impoundment authority will appoint an impoundment official for transient/en route aircraft impoundment and follow established 452 MXG impoundment procedures.

7.6.17.2. **(Added)** If a transient/en route aircraft is impounded, the MOC will contact TACC/XOCL (if applicable) and the owning unit's MOC with details of impoundment event. Ensure TACC/XOCL (if applicable) and owning unit's MOC and MXG/CC are kept informed of investigation status. Only the owning MXG/CC or designated representative can release an aircraft from impoundment.

7.6.18. **(Added) Aircraft Quarantine.**

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

7.6.18.2. **(Added)** MOC will make contact with Satellite Services (SSI) service call desk for infestation removal and inform the 452 MXG/CC.

7.6.18.3. **(Added)** Maintenance personnel will seal the aircraft until the entomology (pest control) technician(s) arrives at the aircraft.

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

7.6.18.5. **(Added)** Maintenance personnel will seal the aircraft after traps and tracking patches are in place, and annotate in the aircraft AFTO Forms with the number of traps/tracking devices installed, and their locations.

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

8.4. **The Base TMDE** Central Collection Point (CCP) Representative will be the office of primary responsibility concerning TMDE/PMEL transactions. CCP Primary and Alternate Representatives will be appointed by the MXG/CC. Owning Work Centers (OWC) will officially

appoint TMDE/PMEL Coordinators as appropriate. OWC Coordinators will manage all TMDE/PMEL functions through CCP Representatives.

8.4.1.1. **(Added)** 412 CRS/TMDE, at Edwards AFB, is the servicing entity for March ARB and will perform calibration on all Category 2 TMDE/ 3 TMDE.

8.4.1.2. **(Added)** TMDE requiring calibration is delivered to the base CCP prior to calibration due date by each OWC.

8.4.1.3. **(Added)** TMDE items are to be picked up by the OWC at the base CCP when advised by CCP personnel that items are ready.

8.4.1.4. **(Added)** CCP will notify owning work center supervision of missing or undelivered items due calibration.

8.4.2.1. **(Added)** OWC TMDE coordinators may be called upon to assist CCP in delivery of TMDE to PMEL.

8.4.3.1.1. **(Added)** Corrections will include the equipment's FSC, ID number, nomenclature and five digit serial numbers.

8.4.6. OWC will ensure an accompanying AFTO 350 Tag is complete.

8.4.8.1.1. **(Added)** Ensure all listed items for calibration are receipted by the scheduler.

8.4.10. **(Added)** TMDE Monitors will perform their duties as outlined in the 412 CRS TMDE Flight Coordinators Guide.

8.7. **Decentralized Material Support (DMS)** will be the focal point for all local manufacture actions and will provide guidance in the accomplishment of these actions in accordance with applicable AFIs.

8.10. **(Added) Local CTK Procedures.**

8.10.1. **(Added)** Tool control is the responsibility of all personnel of the 452d Air Mobility Wing.

8.10.2. **(Added)** Squadrons will establish a tool control program in accordance with (IAW) this instruction. Units with specific, published tool control guidance will follow those directives, provided the intent of this instruction for inventory, lost tool notification and control and accountability is achieved.

8.10.3. **(Added)** Each squadron will ensure primary and alternate tool control custodians are designated in writing for applicable sections and flights that use tools during everyday operation. These custodians will be responsible for the operation of the tool control program in their respective areas. Technical Orders, checklists, job guides, and laptops used for electronic and digital TOs are part of the tool control program when taken to the airfield job site and for all aircraft maintenance operations. When removed from the immediate file area, TOs and/or digital technical order system (DTOS) laptops will be checked using the Tool Accountable System (TAS), AF Form 1297, Temporary Issue Hand Receipt, or AF Form 614, Charge-Out Record, when TAS is not available.

8.10.3.1. **(Added)** Tool Pouches. Canvas or other non-metallic tool pouches are authorized. If used, tool pouches will be part of the CTK and marked accordingly. Personnel may remove tools from a properly inventoried CTK and place them in a tool pouch. A complete CTK inventory

will be accomplished as often as necessary. Return the tools to their shadowed positions prior to "turn-in". During intake maintenance procedures, all tools that are used will be kept in a cloth/canvas tool pouch except when in use. Tools will not be placed/stored on the protective intake mat.

8.10.3.2. **(Added)** Foreign Object Damage (FOD) Pouches. FOD Pouches will be made available for use with every dispatchable toolbox. FOD pouches that are included in the dispatchable kit will be shadowed or attached to the CTK and will be marked with an EID and included on the inventory list.

8.10.3.3. **(Added)** Keys will be controlled in the same manner as CTKs.

8.10.4. **(Added)** Tool Storage Facility/Tool Room.

8.10.4.1. **(Added)** A controlled area within a work center designated for storage and issue of tools and equipment.

8.10.4.2. **(Added)** Tool replacement will be one-for-one and is the responsibility of the tool custodian.

8.10.4.3. **(Added)** Spare/replacement tools are authorized to be retained within the work center's tool control area. Each work center will maintain a current inventory of the type, quantity and location of spare/replacement tools. A documented inventory of these tools and equipment will be accomplished quarterly. Spare/replacement tools will not be etched. The work center will ensure strict control of spare/replacement tools.

8.10.4.4. **(Added)** In aircraft maintenance work centers, shop towels and rags may not be disposable or consumable and will be controlled as tools and replaced on a one-for-one basis. Other work centers working anywhere within the boundary of the airfield will utilize a locally developed means of positive rag control.

8.10.4.5. **(Added)** Personal Protective Equipment (PPE) (i.e., headsets, ear defenders, reflective belts, etc.) will be identified with a Tool Accountability System (TAS) / TCMax identifier. Aircrew personal protective equipment will be marked and controlled IAW technical orders and 452d Operations Group instructions. Units will determine applicable accountability and turn-in requirements. All items will be accounted for prior to entry into and departure from an aircraft.

8.10.4.6. **(Added)** Warranty Tools. The CTK custodian(s) control warranty tools by identifying warranty tools and ensuring broken or damaged warranty tools are isolated from other broken or damaged tools and under strict control until replaced or exchanged.

8.10.4.7. **(Added)** When a depot team, factory representative or Contract Field Team (CFT) performs maintenance on equipment, they will follow this instruction for tool accountability. If the contractor or team has not made provisions for tool control and accountability, the team leader/supervisor will coordinate with the Quality Assurance (QA) office to develop a program. The guidelines developed will be put into letter form, signed by the team leader/supervisor and routed to the 452 MXG/CC for approval. The team leader/supervisor and the QA office will maintain a copy of this letter for the duration of the team's stay.

8.10.4.8. **(Added)** Crash Recovery Team Tools: Crash Recovery falls under the same controls as all other maintenance sections. Mobility Kits: Mobility kits will be inventoried every 24 months or prior to Air and Space Expeditionary Force (AEF) or other programmed deployment vulnerability periods.

8.10.5. **(Added)** Aircraft Maintenance and Aircrew Flight Equipment Tool Identification and Location.

8.10.5.1. **(Added)** Units assigned or attached to the 452d Maintenance Group and the 452d Operations Support Squadron (OSS) AFE will mark their tools with the standard nine-digit Equipment Identification Designator (EID) consisting of numbers and letters of which the first four characters will be a unique World Wide Identification (WWID) code. Conspicuously etch, stamp or mark each assigned tool room, CTKs, tools, special equipment and dispatchable equipment with the tool kit identifying number.

8.10.5.2. **(Added)** All padlocks and keys that are used to secure tool kits will be etched with the appropriate EID and included on the inventory.

8.10.5.3. **(Added)** All kits and toolboxes will be marked with easy to read letters and numbers that are visible when boxes are closed and locked. Additionally, all toolboxes that are used on the flightline will have reflective tape installed in such a way that it is visible from all four sides.

8.10.6. **(Added)** Marking and Tool Identification using TAS/TCMax.

8.10.6.1. **(Added)** All non-maintenance units can mark their tools with the standard EID and utilize the AF-approved TAS/TCMax, provided they contact the 452 MXG Quality Assurance office for assignment of the third and fourth character for shop identification. Contractors and Most Efficient Organization (MEOs) are not required to use the EID until the contract requires the use of TAS/TCMax.

8.10.6.2. **(Added)** The first two letters of the WWID in the EID for units within the 452 AMW are U4.

8.10.6.3. **(Added)** The third and fourth characters designate the unit or shop:

8.10.6.3.1. **(Added)** 452 AMXS – AG

8.10.6.3.2. **(Added)** 452 AMXS/SUPPORT – AS

8.10.6.3.3. **(Added)** 452 AMXS/MOBILITY – MO

8.10.6.3.4. **(Added)** 752 AMXS – AF

8.10.6.3.5. **(Added)** 752 AMXS/SUPPORT – AT

8.10.6.3.6. **(Added)** 452 MXS/AGE FLIGHT – MG

8.10.6.3.7. **(Added)** 452 MXS/AVIONICS FLIGHT – MV

8.10.6.3.8. **(Added)** 452 MXS/MUNITIONS FLIGHT – MW

8.10.6.3.9. **(Added)** 452 MXS/ELECTRO-ENVIRON SHOP – ME

8.10.6.3.10. **(Added)** 452 MXS/FUEL CELL SHOP – MF

8.10.6.3.11. **(Added)** 452 MXS/PNEUDRAULICS SHOP – MH

8.10.6.3.12. **(Added)** 452 MXS/STRUCTURAL MAINTENANCE – MC

8.10.6.3.13. **(Added)** 452 MXS/MACHINE/WELDING SHOP – MM

8.10.6.3.14. **(Added)** 452 MXS/NON-DESTRUCTIVE TESTING (NDI) – MN

8.10.6.3.15. **(Added)** 452 OSS/AIRCREW FLIGHT EQUIPMENT – FE

8.10.6.3.16. **(Added)** 452 MXS/AERO REPAIR & WHEEL/TIRE SHOP – MA

8.10.6.3.17. **(Added)** 452 MXS/KC-135 ISO DOCK – MI

8.10.6.3.18. **(Added)** 452 MXS/C-17 HSC SECTION – MD

8.10.6.3.19. **(Added)** 452 MXS/PROPULSION SHOP – MP

8.10.6.3.20. **(Added)** 452 MXG/QUALITY ASSURANCE – QA

8.10.6.4. **(Added)** The unit establishes the remaining five characters (any combination of numbers/letters) for CTKs, tools, and dispatchable equipment identification.

8.10.6.5. **(Added)** Tools will be marked with the most current EID. All previous CTK identifiers will either be removed or marked out (this does not include Precision Measurement Equipment Laboratory (PMEL) markings).

8.10.6.6. **(Added)** Small tools or items that cannot be marked as described above (such as drill bits, Allen wrench sets, apexes, etc.) are to be maintained in a container marked with the WWID and an identifying character(s) that ties the tool back to the CTK, along with the number of tools contained. The container is counted as one of the items.

8.10.7. **(Added)** Marking and Tool Numbering/Equipment Identification System for all Non-Maintenance Work Centers.

8.10.7.1. **(Added)** All kits and toolboxes will be marked with easy to read letters and numbers that are visible when boxes are closed or locked. Additionally, all toolboxes that are used on the flightline will have reflective tape installed in such a way that it is visible from all four sides.

8.10.8. **(Added)** Hazardous Materials.

8.10.8.1. **(Added)** Rag and Disposable Glove Control.

8.10.8.1.1. **(Added)** Marking or identifying each rag or disposable glove with a CTK number is not necessary. However, rags/disposable gloves will be controlled like any other dispatchable tool; therefore, tool rooms and work sections will issue and receipt rags/disposable gloves on a one-for-one basis. These items may also be issued in pre-packaged containers with the number of rags/disposable gloves marked on the outside of the container.

8.10.8.1.2. **(Added)** Units will ensure rags and gloves with hazardous waste are separated from reusable rags.

8.10.9. **(Added)** Missing/Lost Item/Tool Procedures.

8.10.9.1. **(Added)** In addition to the following guidance, refer to MARCHARBI 21-104.

8.10.9.3. **(Added)** 452d Mission Support Group and 452d Operations Group personnel (except AFE): If the missing tool/item is not found after the initial search and was lost in the aircraft maintenance complex or in the vicinity of the aircraft operating areas:

8.10.9.3.1. **(Added)** The individual who identifies the missing item will notify their immediate supervisor, tool control custodian or monitor and 452 MXG/MXOOM (MOC).

8.10.9.3.2. **(Added)** After a thorough search is completed and the tool or item is found, the AFRC Form 174, Lost Tool/Object Report, will be closed out by the appropriate supervision level and immediately forwarded to 452 MXG/MXQ.

8.10.9.3.3. **(Added)** If the item is not found, the AFRC Form 174 will not be closed out. The tool control custodian will maintain the original on file and forward a copy to 452 MXG/MXQ. These forms will remain active until the item is found. When the item is found, the original form will be completed and closed, then forwarded to 452 MXG/MXQ for filing and accountability.

8.10.9.3.4. **(Added)** All closed reports for found items will remain on file for a period of 1 year after the close out date.

8.10.9.8. **(Added)** 452d Maintenance Group personnel and Aircrew Flight Equipment:

8.10.9.8.1. **(Added)** The person identifying the missing or lost item or tool will notify the expeditor, production superintendent or equivalent immediately. If not found after completing the initial search (within 30 minutes), initiate an Air Force Reserve Command Form 174 and notify the MOC for a Job Control Number.

8.10.9.8.2. **(Added)** Include a description of the lost item, the TAS EID number marked on the item, and the vicinity or last known location where the item was seen or used. Notify MOC of the red "X" entry. The 452 MXG/CC will determine if impoundment is required on a case-by-case basis.

8.10.9.8.3. **(Added)** If the item is not found, the AFRC Form 174 will not be closed out. The tool control custodian will maintain the original on file and forward a copy to 452 MXG/MXQ. These forms will remain active until the item is found. When the item is found, the original form will be completed and closed, then forwarded to 452 MXG/MXQ for filing and accountability.

8.10.9.8.4. **(Added)** If an aircraft is taxiing or in flight and the individual who was performing maintenance on the aircraft discovers an item is lost or missing, accomplish the following:

8.10.9.8.5. **(Added)** Immediately notify the MOC by the quickest means possible, providing a description of the lost item, the vicinity (if known) of the missing item and the aircraft systems potentially affected.

8.10.9.9. **(Added)** The MOC will coordinate with the 452 MXG/CC or designated representative and the appropriate maintenance supervision (AMXS/MXS) to make a determination as to whether the aircraft needs to return to March ARB or point of origin. The MOC will relay this information to the 452d Command Post.

8.10.9.15. **(Added)** Upon notification of a lost/missing tool/item, MOC will:

8.10.9.15.1. **(Added)** Log the information for the lost/missing item in the Lost/Missing Tool/Item Log.

8.10.9.15.2. **(Added)** Assign a control number for the lost tool report and pass it to the tool control custodian and 452 MXG/MXQ. Control number will consist of 452AMW-12(Year)-11(Month)-28(Two digit number restarting each month; i.e., 452AMW121128).

8.10.9.15.3. **(Added)** Notify 452 MXG/MXQ of the lost/missing item.

8.10.9.16. **(Added)** When a missing item has been found, the owning work center will complete the original AFRC Form 174. Be sure to check the yes block for an item found. Forward or fax a copy of the completed form to 452 MXG/MXQ.

11.10.6. **(Added)** 452 MXG/MXQ will be the OPR for matters concerning ASIP procedures. Refer to AFI 63-140 and AFI 63-140 AFRC Supplement for additional guidance.

11.13.10. **(Added)** Cannibalization Procedures.

11.13.10.2. **(Added)** Aircraft Maintenance Squadron (AMXS) or Maintenance Squadron (MXS) will:

11.13.10.2.1. **(Added)** Ensure CANN action is feasible and necessary, after confirming that the part is not readily available in DMS, TNB, forward supply points, or back shops.

11.13.10.2.2. **(Added)** Notify MOC of part requirement.

11.13.10.2.3. **(Added)** Provide document number to MOC.

11.13.10.2.4. **(Added)** Provide aircraft tail number or equipment end item serial number to MOC for CANN action.

11.13.10.2.5. **(Added)** Ensure complete documentation is accomplished for each CANN action in aircraft forms and MIS.

11.13.10.4. **(Added)** Procedures (CANN Engine In-Shop):

11.13.10.4.1. **(Added)** Coordinate CANN action with engine manager and MXS Production Superintendent of CANN action.

11.13.10.4.2. **(Added)** Notify engine shop supervisor for access and location of engines.

11.13.10.4.3. **(Added)** Item to be cannibalized must be on order and have a document number. Attaching consumables parts which cannot be reused (O-rings, seals, crush gaskets, etc.) must also be on order.

11.13.10.4.4. **(Added)** Prior to CANN, properly annotate item description and fill out necessary information in the CANN log book, located on the CANN engine.

11.13.10.4.5. **(Added)** Ensure that any fitting that is not part of the CANN action remains with the CANN engine, all open lines and disconnected canon plugs will be properly capped and fluid spills cleaned up.

11.13.10.5. **(Added)** Maintenance Operations Center (MOC) will:

11.13.10.5.1. **(Added)** Verify correct back order status of parts with Decentralized Material Support (DMS).

11.13.10.5.2. **(Added)** Create CANN action discrepancy in GO81 using program 9050.

11.13.10.5.3. **(Added)** Issue Cannibalization (CANN) job control numbers.

11.13.10.5.4. **(Added)** Notify Decentralized Material Support (DMS) of CANN action and provide all required information.

11.17.1.2.1. **(Added)** All phases of initial, refresher and certifier training will be documented using an AF Form 2426. Completed AF Form 2426 will accompany the AFRC Form 176 to be processed by MT.

11.17.5.3. Engine Operation Practical Evaluations will be conducted on the entire procedure as outlined in the T.O., or checklist; abbreviated demonstrations are not permitted.

11.17.8.2.2. **(Added)** Maintenance engine run personnel that are decertified may not operate engines, APU or QSAS, until they have completed recertification training for that weapon system. The following causes are automatic grounds for decertification.

11.17.10. All phases of initial, refresher and certifier training will be documented using an AF Form 2426. Completed AF Form 2426 will accompany the AFRC Form 176 to be processed by MT.

11.17.12. All APU run certified personnel will perform a minimum of one proficiency run during a 180 day period.

11.17.12.1.1. **(Added)** 180-day APU proficiency run not required for engine run certified personnel; use G081 code (C17 000071), (K135 000544) for tracking purposes.

11.40. **(Added) Aircraft Jacking.**

11.40.1. **(Added)** The 452 MXG/CC has authorized full use of the following jacking spots using operational risk management, technical data procedures and the guidelines listed in this instruction until the jacking spots are officially certified.

11.40.2. **(Added)** The following spots meet KC-135 aircraft jacking specifications for complete fuselage and forward fuselage jacking operations: B-1, B-3 thru B-6, C-1 thru C-6, D-1 thru D-3, E-1 thru E- 3, F-1 thru F-3 and G-6. KC-135 aircraft complete fuselage and forward fuselage jacking may be performed in hangars 2303, 2306, 2312, 423 and 1244.

11.40.3. **(Added)** The following spots meet C-17 aircraft jacking specifications for complete fuselage/forward fuselage jacking and integral jacking operations: P1 thru P4, R1 thru R4, S1 thru S3, U1 thru U3 and T-1 thru T3. C-17 aircraft complete fuselage/forward fuselage and integral jacking may be performed in hangars 2312 and 2303.

11.40.4. **(Added)** All other spots on the KC-135 ramp not listed in the above paragraphs may be used for forward fuselage jacking only.

11.41. **(Added) Aircraft Painting.**

11.41.1. **(Added)** All off-equipment parts will be painted inside of a spray booth.

11.41.2. **(Added)** Painting outside of a spray booth is limited on the flightline and approved only in hangars/buildings 423, 2303, 2306 and 2312, provided TO 42A-1-1, AFI 91-203 and NFPA 410 are followed.

11.41.3. **(Added)** Painting personnel will ensure all entrances are posted with “Painting in Progress” signs to prevent unauthorized personnel from entering a potentially dangerous area.

11.41.4. **(Added)** Hangar doors will remain closed during the painting operation.

11.41.5. **(Added)** Painting personnel will ensure all paints are authorized, tracked and managed in accordance with AFI 32-7086.

11.41.6. **(Added)** Painting personnel shall comply with the South Coast Air Quality Management District (SCAQMD) Rule 1124, Aerospace Assembly and Component Manufacturing Operations.

11.42. **(Added) Guarding Openings Exposed by Removed Aircraft Floor Panels/Hatches.**

11.42.1. **(Added)** All aircraft with removed floor panels/hatches or protective fall ventilation grates will be clearly identified by signs posted at all entry doors that can be read prior to boarding aircraft.

11.42.2. **(Added)** Signs will be reflective and clearly marked; i.e. "Warning – Floor Panels Removed."

11.43. **(Added) Hangaring an Aircraft.**

11.43.1. **(Added)** Prior to towing an aircraft into or out of hangars, it will be coordinated with the MXS production superintendent.

11.43.2. **(Added)** Tow supervisors will ensure all explosive devices are removed from aircraft and all safety locks, pins, covers, plugs are installed before aircraft are towed into hangar. **Note:** For purposes of this requirement, fire extinguisher squibs are not considered explosive devices.

11.43.3. **(Added)** When an aircraft is in the hangar, no parking is allowed in front of tow vehicle access door, it must be kept clear for emergency response vehicles and for aircraft evacuation. (Exception: When tow vehicle is in place as directed by the fire department) Diesel powered support equipment, such as the Condor, Genie lift, hydraulic test stand, jacking manifold and authorized maintenance stands may be operated inside a hangar. Operators must ensure there is adequate ventilation by turning on the air ventilation system or opening the hangar doors prior to operation.

11.43.4. **(Added)** Emergency Procedures:

11.43.4.1. **(Added)** Notify the fire department, and the MOC.

11.43.4.2. **(Added)** Evacuate all non-essential personnel from the area.

11.44. **(Added) Engineering Disposition Process.**

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

11.44.2. **(Added)** Appoint production supervisors and/or flight commanders/chiefs, and designated section chiefs, as Approving Officials.

11.44.3. **(Added)** Ensure all approving officials get access to MDS specific system.

11.44.4. **(Added)** Review monthly for trends of similar or repeat submissions in the same specialty area and ensure technical order improvement reports are initiated when warranted.

11.44.5. **(Added)** Squadron production supervisors will inform the maintenance operations center of aircraft status based on the ED submission and subsequent ED response.

11.44.6. **(Added)** Approving officials will:

11.44.6.1. **(Added)** Ensure technical order research is completed and organizational and intermediate-level repair remedies have been exhausted before submitting a request.

11.44.6.2. **(Added)** Ensure the ED request is completed with as much detail as possible, photos and GO81 data if available; determine priority of submission; review then submit it in MDS specific system.

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

11.44.7.1. **(Added)** Annotate the temporary repair in the aircraft AFTO Form 781A, Maintenance Discrepancy and Work Document, or support equipment AFTO Form 244, Industrial/Support Equipment Record, as required.

11.44.7.2. **(Added)** Review the ED received and determine if further guidance is needed to correct the problem.

11.44.7.3. **(Added)** Document in the aircraft AFTO Form 781A or support equipment AFTO Form 244 that the discrepancy was corrected IAW the ED provided and include the ED number in the corrective action block.

11.44.8. **(Added)** Maintenance Group Quality Assurance (QA) will:

11.44.8.1. **(Added)** Be the central point of contact for approving all EDs.

11.44.8.2. **(Added)** Review priority of the ED submitted based on aircraft maintenance situation/status. EDs received during duty hours will be processed immediately upon receipt. EDs received after normal duty hours will be processed the next duty day.

15.2.4.2.3.1. **(Added)** Order Time Change Items (TCI) 30 days in advance of a Periodic (PE) Inspection start date and 15 days in advance for Home Station Check (HSC).

15.2.4.3.6. **(Added)** PS&D will schedule the PE/HSC package and special inspections in GO81 on the first PE/HSC day.

15.2.5.1.5.3. **(Added)** Annotate Functional Check Flight or Operation Check Flight requirements in AFTO Form 781A and AF Form 2410 if required. Ensure Quality Assurance is notified.

Matthew J. Burger Col, USAF
Commander, 452d Air Mobility Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

DODD 5100.3, *Support of the Headquarters of Combatant and Subordinate Joint Commands,* 19 November 1999

DODI 5025.01, *DOD Directives Program*, 28 October 2007

DOD 5200.1-R, *Information Security Program,* 14 January 1997

DOD 5400.7-R_AFMAN 33-302*, Freedom of Information Act Program,* 21 October 2011

AFPD 33-3, *Information Management*, 8 September 2011

AFI 10-101, *Format and Content of Mission Directives,* 12 February 2003

AFMAN 33-326, *Preparing Official Communications,* 1 November 1999

HOI 33-3, *Information Workflow Management and Correspondence Preparation,* 31 May 2002

T.O. 00-5-1, *Air Force Technical Order System,* 15 October 2006

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AC—Administrative Change

AFDPO—Air Force Departmental Publishing Office

AFH—Air Force Handbook

Terms

Accountable Forms—Forms that the Air Force stringently controls and which cannot be released to unauthorized personnel, since their misuse could jeopardize DOD security or result in fraudulent financial gain or claims against the government.

Administrative Change—Change that does not affect the subject matter content, authority, purpose, application, and/or implementation of the publication (e.g., changing the POC name, office symbol(s), fixing misspellings, etc.)

Approval Authority—Senior leader responsible for contributing to and implementing policies and guidance/procedures pertaining to his/her functional area(s) (e.g., heads of functional two-letter offices).

Authentication—Required element to verify approval of the publication; the approval official applies his/her signature block to authenticate the publication. The signature block includes the official's name, rank, and title (not signature).

Attachment 2

ELEMENTS OF A PUBLICATION

A2.1. Use Arabic numerals in sequence: **Attachment 1**, **Attachment 2**, Attachment 3, etc. Paragraphs in attachments will take the first number from the number of the attachment; e.g., Attachment **3** would have paragraph A3.1, A3.2, A3.3, etc. **Note:** If attachments have sections, identify them as sections A1A, A1B, A1C, or A2B, A2C, etc.