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BEALE AIR FORCE BASE

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Supplement

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Maintenance

AIRCRAFT AND EQUIPMENT
MAINTENANCE MANAGEMENT

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This publication supplements AFI 21-101_ACCSUP, Aircraft and Equipment Maintenance Management, 15 January 2020 and AFI 21-101, Aircraft and Equipment Maintenance Management, Air Combat Command Supplement, 22 June 2020 as follows. This supplement applies to all 9th Reconnaissance Wing individuals at all levels who perform aircraft or equipment maintenance, and personnel who work in the flight line area or respond to aircraft incidents. This does not apply to the Air National Guard (ANG) and Air Force Reserve Command (AFRC). This supplement provides guidance and procedures for maintenance, documentation, and support of U-2 and T-38 aircraft. See Department of Air Force Instruction (DAFI) 90-160, Publications and Forms Management, paragraph 1.5.3, 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 all records created as a result of processes prescribed in this publication are maintained in accordance with AFI 33-322, Records Management and Information Governance Program, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Management System. 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 document has been substantially revised and must be completely reviewed.

1.14.1.1. **(Added)** Standard three (8 hour) shift operations unless otherwise required for mission requirements or CC directed.

1.15.2.1.1. **(Added)** Dock boxes in aircraft hangars/docks are designated office/break area. Personal electronic devices are authorized for use inside the dock box, and office areas in buildings 1069 (Dock 1), 1075 (Docks 2 & 3), 1077 (Dock 4), 1076 (Dock 5), 1074 (Dock 6), and 11200 (Dock 8).

1.15.2.1.1.1. **(Added)** Use of personal electronic devices (non-government issued) are authorized for use on the flightline or in aircraft hangars/docks *only* for official communication purposes in order to complete primary duties and improve mission effectiveness unless otherwise prohibited.

2.4.44.1. **(Added)** Repeat/Recur Discrepancy Responsibilities and Procedures:

2.4.44.1.1. **(Added)** See **Paragraph 3.7.6.3** for Repeat/Recur guidance.

2.4.44.1.2. **(Added)** Initial Repeat/Recur discrepancies will be signed off by a technician who is a 7 level, Red X Certified, and on the SCR.

2.4.44.1.3. **(Added)** The MXG/CC will review corrective actions on any third or greater Repeat/Recur discrepancies.

2.4.44.2. **(Added)** SQ/CC CND Responsibilities and Procedures:

2.4.44.2.1. **(Added)** SQ/CC For work centers performing on-equipment maintenance.

2.4.44.2.1.1. **(Added)** SQ/CC When a discrepancy cannot be duplicated, the technician signing off the task will be a 7 level and Red X Certified on the SCR.

2.4.48.1. **(Added)** If a GITA aircraft is available, the 9 MOF/MTF will be responsible for scheduling aircraft usage and will control the aircraft forms.

2.5.4.1. **(Added)** FOL/subordinate units will develop or use local wing emergency action/functional checklists.

3.6.6.1. **(Added)** Ensure all in use oil servicing carts are sampled weekly and delivered to the JOAP lab no later than 1000 hours the first duty day of each week.

3.6.6.1.1. **(Added)** Any oil carts not received by 1000 hours will be placed on Code P and are not authorized to service applicable aircraft engines until the cart is placed on OAP Code A.

3.6.6.1.2. **(Added)** The JOAP lab will notify the MOC of missing samples if any oil samples are not received by 1000.

3.6.6.1.3. **(Added)** The MOC will notify Production Superintendent of missing JOAP samples and inform which oil carts are placed as Code P.

3.6.6.1.4. **(Added)** All oil carts will be sampled after refilling. The oil sample results will be known prior to utilizing the oil cart on any aircraft engine or components.

3.7.6.3. **(Added)** Access IMDS screen 174, Maintenance Repair History Inquiry, (or compatible automated system), for the last 30 days or ten sorties when an aircraft lands with a PRD and determine if the discrepancy is a repeat/recur. In the event IMDS is down, debrief will review the

locally developed manual debriefing forms for the same period. Enter repeat/recur in red in the discrepancy block, followed by the discrepancy. AMU supervision will review all repeat/recur discrepancies.

3.8.1.1.1. **(Added)** Tow teams will use locally developed aircraft hangaring checklist. (Refer to 9 MXG QA Share Point for checklist) when moving an aircraft into Docks 1 thru 8 or the wash rack.

3.11.8. **(Added)** Support Section Chief (or equivalent) will appoint -21 (Section I) equipment custodians (primary and alternate) and maintain program IAW 21-103, *Equipment Inventory, Status, and Utilization Reporting*.

3.11.8.1. **(Added)** Ensure -21 equipment and storage bag is marked with aircraft tail number or composite tool kits (CTK) EID number. Affix red "REMOVE BEFORE FLIGHT" streamers to covers and pins.

3.11.8.2. **(Added)** -21 equipment will be inspected for serviceability, inventoried at minimum every 30 days and the inspection documented in the aircraft AFTO 781 forms.

3.11.8.3. **(Added)** Tow Supervisors are responsible for control of -21 equipment when aircraft locations change.

4.4.3.1.1. **(Added)** Egress locally written instructions will be identified and approved by the 9 MXS/CC or equivalent. Any unique and/or additional Egress procedures are outlined in 9 MXS OI 21-1. This includes CAD/PAD Cannibalization Request Form and Egress Safety Briefing.

4.4.3.2.8.4. **(Added)** The PS&D section will prepare, accomplish, and forward all required forms and Issue Requests to 9 Munitions Squadron (MUNS) for all scheduled munitions time change items.

4.4.3.2.11.2.1. **(Added)** Physiological Support Squadron (PSPTS) personnel will remove/install personnel parachutes/survival kits for (T)U-2 ejection seats. Aircrew Flight Equipment (AFE) personnel will remove/install survival kits for T-38A ejection seats.

4.4.4.2.3.3. **(Added)** 9 RW Hydrazine Response Team members at GSUs and FOLs will conduct initial and refresher training for local Fire Department personnel to augment Hydrazine Response Team operations.

4.4.4.2.4.1. **(Added)** The primary aircraft open fuel tank maintenance facility for Beale AFB is building 1077 (Dock 4). Building 1075 (Dock 3 & Dock 2) and building 1072 (Wash Rack) are the only alternate open fuel tank maintenance facilities. All open fuel tank maintenance must be accomplished in the primary repair location before using an approved alternate location. T-38's exempt.

4.5.1.7.1. **(Added)** AGE flight ready lines are located on the north and south sides of building 1225. Powered and non-powered AGE not being used will be parked in their designated sub-pool location or the AGE flight's ready line. GSUs and FOLs will establish AGE ready lines at their locations.

4.5.1.7.2. **(Added)** Using organizations are responsible for equipment not cited on authorized allowance standards. Users are also required to inspect/service oil and hydraulic servicing carts prior to use, monitor oxygen/nitrogen cart contents (quantity/pressure levels). AGE will deliver oxygen carts to cryogenics for servicing. AGE will support/control Lox carts for T-38's.

4.5.1.7.2.1. **(Added)** AGE may assist in towing non-powered AGE (NPA), if AMXS flying operations or user manning constraints preclude them from delivering item.

4.5.1.8. **(Added)** Users will document all servicing actions for liquid and gaseous oxygen carts on the AFTO Form 134. Oil carts, H70/gaseous Nitrogen cart, and hydraulic carts will be documented on the cart servicing logs. Users will replace full or damaged logs. The organization servicing the aircraft shall maintain the AFTO Form 134 per T.O. 42B6-1-1.

4.9.2.1.1. **(Added)** R&R Section. Removes, replaces, rigs, troubleshoots and ops checks primary flight control systems (excludes cap stands and servo motors). Rigs, adjusts, and troubleshoots secondary flight control systems (excludes removal and installation of surfaces, ops checks, hydro and electrical components, and actuators). Removes, replaces, rigs, troubleshoots and ops checks throttle control systems up to the fuel control linkage. Removes, replaces, rigs, troubleshoots and ops checks canopy and windscreen (excludes the M13 thruster and canopy hinge seals). Removes, replaces, rigs and troubleshoots landing gear, emergency landing gear system, landing gear doors and related mechanical mechanisms (excludes electrical, hydraulic component, ops checks and wheel/tire/brake assemblies).

4.9.2.2. **(Added) Table 4.1.** Lists 9 MXS Repair and Reclamation responsibilities. The table covers all specific Repair and Reclamation tasks to include responsibilities for the rigging of all primary flight controls on the U-2. This instruction will be used as a guide to contact the appropriate agency responsible for completing a maintenance task.

Table 4.1. (Added) Repair and Reclamation Tasks.

U-2 Repair and Reclamation Tasks.					
WUC	SYSTEM	RIGGING	REM/REPL	OPS CK	FOM
11T00	Vertical Stabilizer	NO	NO	NO	NO
12F00	Throttle Control[1]	YES	YES	YES	YES
12G00	Windscreen	N/A	YES	NO	YES
12H00	Canopy[2]	YES	YES	YES	YES
13A00	LG & Related Mechanisms[3]	YES	YES	NO	YES
13C00	Emergency Landing Gear	YES	YES	YES	YES
14000	Wings	NO	NO	NO	NO
14A00	Aileron	YES	YES	YES	YES
14B00	Elevator	YES	YES	YES	YES
14C00	Rudder	YES	YES	YES	YES
14D00	Wing Flaps	YES	NO	YES	NO
14E00	Speed brakes	NO	NO	NO	NO
14FJ0	Horizontal Stabilizer Trim Act	YES	YES	YES	YES
14J00	Stall Strip	YES	YES	YES	YES
14G00	Lift Spoiler	NO	NO	NO	NO
14GM0	Lift Spoiler Ctrl Surface / Switch	NO	NO	NO	NO
14H00	Roll Spoiler Actuator	NO	NO	NO	NO
14HQ0	Roll Spoiler Ctrl Surfaces / Switch	NO	NO	NO	NO
52D00	Servo Motors	NO	NO	NO	NO
52DAF	Capstans	NO	NO	NO	NO

Note:
1. Maintenance only performed from throttle control up to fuel control linkage.
2. Excludes the M13 thruster and canopy hinge seals.
3. Excludes electrical, hydraulic component, ops checks and pogo/wheel/tire/brake assemblies.

5.2.1.12.1. **(Added)** For 9 MXG LMR call signs see 9 MXG LMR Call Sign Policy Letter on QA Share Point.

5.2.5.3.4.2.1.2. **(Added)** Maintain and control Terminal IDs.

5.2.5.3.4.2.2.1. **(Added)** Issue a user-ID and terminal-ID, a profile name will be added to their account.

5.2.5.3.4.12.3. **(Added)** TRIC/Profile access letters (or emails) will be submitted through the applicable IMDS subsystem manager for approval and forward to IMDS DBM section. Letters must include the name, employee number, individual user ID, profile and/or TRIC code requested, and signature of individual's supervisor. Letters are filed by the DBM section and require updating annually.

6.10.1.1.1. **(Added)** TODO's will pull applicable TCTO's from the Enhanced Technical Information Management System (ETIMS).

6.10.7.3. **(Added)** The lead 9 MXG TODO/eTool Manager will ensure the 1 ERS/99 ERS/5 RS are included in the eTools annual refresh.

6.10.10. **(Added)** Site Specific TODA will:

6.10.10.1. **(Added)** Manage locally prepared publications according to AFI 21-101 and TO 00-5-1 to include the MAJCOM and base supplements.

6.10.10.2. **(Added)** Assign an identification number to LWC, LCL, LJG and LPSs (ex. LCL-MXG- XXX) and conduct format review.

6.10.10.3. **(Added)** Keep the original copy on file (no date stamp) and give a date stamped copy to the applicable work centers.

6.12.2.1.1.1. **(Added)** Ensure aircrews are properly briefed on specific FCF requirements, procedures, and hazards **(Attachment 8)**.

6.12.4.4. **(Added)** Off-station aircraft FCF requirements.

6.12.4.4.1. **(Added)** At detachments and operating locations the CC and operations officers are the primary FCF pilots and will be qualified/certified IAW **(Attachment 8)**.

6.12.4.4.1. **(Added)** The detachment commander serves as the OG/CC representative, ensuring TDY FCF pilots are briefed on these procedures prior to flying an FCF. Detachment or operating location CCs will be the OG/CC representative for off station FCF related decisions, and FCF related waiver authority when authorized.

7.2.2.2.1.1. **(Added)** Locations that have an established expeditionary chain of command (i.e., 99 ERS/U-2 AMU) may follow local guidance.

7.6.1.1. **(Added)** Use JST and Impound Worksheet **(9** MXG **Form 9,** or equivalent), Impoundment Official Checklist, (9 MXG QA Share Point) for all impoundments.

8.2.1.2. **(Added)** All 9 MXG and FOL maintenance performing Work Centers will:

8.2.1.2.1. **(Added)** Maintain a master CTK continuity book with the following information:

8.2.1.2.1.1. **(Added)** Appointment letters for all CTK custodians and alternates.

8.2.1.2.1.2. **(Added)** Change of custodian inventory letter.

8.2.1.2.1.3. **(Added)** Documentation of annual tool, CTK and non-CA/CRL equipment inventory will be documented in the TC-MAX and the Master CTK Continuity binder.

8.2.1.2.1.4. **(Added)** Tool room access letter.

8.2.1.2.1.5. **(Added)** Spare tool access letter (limited to shift supervisor or equivalent, and CTK custodian).

8.2.1.2.1.6. **(Added)** List of references including locations.

8.2.1.2.1.7. **(Added)** Restricted item listings with approved individuals for specific items (May be broken down by items that are restricted with multiple authorizations from different AFSCs filed for same item).

8.2.1.3. **(Added)** Keep all CTKs free of foreign objects and common bench stock items such as nuts, bolts, washers and screws. Empty toolbox FOD bags/containers at the end of each shift.

8.2.1.4. **(Added)** Lead seals removed from the work center will be packaged in a plastic bag or equivalent and marked with quantity. All unused and removed seals (pieces) will be accounted for prior to leaving the job site and returned/disposed of accordingly.

8.2.1.5. **(Added)** Long-term sign out of CTKs will not be used strictly for sake of convenience, i.e., launch kits will not be signed out for the flying week. Long-term sign out of CTKs must be approved by the unit Production Superintendent for heavy maintenance exceeding a single shift, TDY's, and contingency missions and will utilize an ACC Form 140. A dual inventory of tools will be completed with the Production Superintendent at shift change to inventory the tools and/or equipment.

8.2.1.5.1. **(Added)** Support will use TC-MAX to sign out CTKs/equipment long-term. Support will include an ACC Form 140, *CTK Inventory and Control Log* with the issue for manual inventory.

8.2.1.6. **(Added)** Units/personnel not assigned to the 9 **MXG** dispatched to work on the flight line/airfield or in maintenance facilities supporting aircraft operations will:

8.2.1.6.1. **(Added)** Inventory all tools and equipment used on the flight line or aircraft maintenance facilities prior to entry to and exit from a work site.

8.2.1.6.2. **(Added)** Keep all tool kits free of FO and hardware such as nuts, bolts, washers, screws etc. A FOD receptacle will be placed and accounted for in the toolkit or vehicle used to transport the tool kit. The receptacle must completely secure the FO to prevent debris from falling out unnoticed. Empty all debris from receptacle when full or at the end of each shift.

8.2.2.1. **(Added)** The annual inventory will include all assigned CTKs, tools, and non-CA/CRL equipment. It will not include spare tools. During this inventory all tools will be inspected for care and safety in accordance with AFMAN 91-203 and TO 32-1-101.

8.2.3.3. **(Added)** Broken warranted tools will be stored separately from broken non-warranted tools.

8.2.3.4. **(Added)** Unserviceable tools that cannot be immediately replaced with a warranted tool may be temporarily replaced with a non-warranted tool. Requirements for marking tools must still be met.

8.2.4.1.1. **(Added)** Spare warranted tools will be stored separately from non-warranted tools. Tools removed from a CTK for placement into a spare tool bin will be de-etched and annotated in the spare tool control log by bin #, nomenclature, and quantity.

8.2.4.2.1. **(Added)** Unserviceable tools will be replaced on a one-for-one basis by a CTK custodian.

8.2.4.2.2. **(Added)** A log will be kept of broken tools stating CTK #, item description, date removed, removed by employee number, and warranted status (Y or N).

8.2.4.2.3. **(Added)** Broken tools must be documented on the CTK MIL, TC-MAX, and the Broken Tool Log.

8.2.4.3. **(Added)** Sections requiring the placement of HAZMAT in a CTK (i.e., grease, oil, paste, adhesives, etc.) will ensure AF Form 3952 and appropriate MSDS is on file. CTK custodians will control and manage shelf-life items IAW AFI 23-101.

8.2.5.2. **(Added)** CTKs and/or all associated equipment will be transferred at the job site only for contingencies, exercises, or during heavy maintenance. The Production Superintendent is the lowest level of authority to approve CTK turnover on the flight line. All tools/equipment approved for on-site turnover must be returned to the owning support section every 24 hours for inventory unless signed out on a long-term basis.

8.2.6.1. **(Added)** After a one-hour search has been conducted, contact the MOC if a tool, object, or piece of equipment is lost on the flight line or any aircraft maintenance facility. Authority to terminate lost/missing tool search will come from the Squadron DO or higher.

8.2.6.1.1. **(Added)** Reference to lost or missing tool procedures **(Attachment 8)**.

8.2.7.1. **(Added)** Refer to Unit WWID List **(Attachment 11)**.

8.2.8.1. **(Added)** Individually issued equipment will be accounted for by the owning individual. If item(s) is/are discovered missing, report as a missing item using lost tool/object reporting procedures. If no employee number is assigned, use the member's organization.

8.2.9.1.2. **(Added)** Rags will be signed out as a prepackaged kit with a designated number of rags annotated on the kit. Rags will be considered a tool and reported as a lost tool when unaccounted for. Complete accountability of rags will be accomplished by support personnel at the beginning and end of each shift.

8.2.10.1. **(Added)** Appointed CTK custodians and alternates submit tool purchase requests. The purchase will be executed through the units GPC holder or RA as applicable.

8.2.11.1. **(Added)** Requesters initiate 9 **MXG** Form 4, or equivalent, requesting authorization to locally manufacture and use a particular tool or piece of equipment.

8.2.11.1.1. **(Added)** The form must include full justification for the tool and a description of the use for each item. It must also list all applicable diagrams, T.O. references and include pictures or drawings or any other supporting information as attachments.

8.2.11.1.2. **(Added)** SQ or FOL/CC is approving authority for all locally manufactured tools for their location.

8.2.11.1.3. **(Added)** The QA local manufacture program monitor copies and files all documents associated with the request and forwards all original documents to the initiator. QA and the owning work center will maintain records of all approved locally designed tools and equipment.

8.2.11.1.3.1. **(Added)** The 5 RS and FOLs will forward all tool requests to the 9 MXG QA office to ensure fleet standardization for locally developed tools.

8.2.12.1. **(Added)** Establish a separate support section in the functional area for the duration of the field activity or incorporate with the host unit's support section.

8.2.12.1.1. **(Added)** If a separate CTK custodian is not assigned, the senior person will assure CTK custodian responsibilities are met. The custodian will be briefed on local CTK/lost tool procedures by the host AMU or MXS support section chief.

8.2.14.1. **(Added)** Crash recovery equipment in Emergency Response Vehicles (ERV), trailers, and mobility kits will be considered a CTK. They will have a nine-digit EID number assigned and follow dispatchable CTK guidance in this instruction.

8.2.14.1.1. **(Added)** Equipment contained in trailers, mobility kits, and ERV will not be used for routine aircraft maintenance. Positive control of equipment will be maintained through the MIL and TC-MAX.

8.2.14.1.2. **(Added)** Keys for trailers and kits will be secured in the work center when not in use, and controlled using TC-MAX.

8.2.14.1.3. **(Added)** Equipment keys will remain with ERV keys during the duty day, then secured in the work center (R&R) when not in use.

8.2.14.1.4. **(Added)** ACC Form 140 and MIL will be maintained in the work center to document use of equipment, inventories, and inspections when TC-MAX is not available.

8.2.14.2. **(Added)** Hydrazine response equipment/tools contained within assigned response vehicles will be considered a dispatchable CTK. Shift change, post response, and aircraft maintenance tasks inventories will be completed and documented in TC-MAX by Support Section personnel.

8.2.15.2. **(Added)** The production superintendent or weekend supervisor will perform an inventory of the CTK/equipment upon turn-in when a secondary party is not otherwise available.

8.2.16.1. **(Added)** Access will be limited to personnel on the applicable access letter. The tool room will be secured when unattended.

8.3.6.8. **(Added)** Damage to items that do not render them unserviceable will be legibly annotated in ink on the MIL immediately to the right of the item nomenclature by the individual who discovered the damage.

8.3.6.8.1. **(Added)** The individual will enter their last name and the date the damage was discovered.

8.3.6.9. **(Added)** Requirements for cadmium free CTK's and tools:

8.3.6.9.1. **(Added)** Work center supervisors ensure all toolboxes/CTKs are stenciled with a minimum of 1/2 inch letters of a contrasting color with the following warning: WARNING FOR USE ON CADMIUM-FREE ACFT/EQUIP ONLY

8.3.6.9.2. **(Added)** Accomplish positive certification of tools as cadmium free only by a chemical test. It is the responsibility of the owning work center to ensure that all tools are tested IAW TM 1U-2S-23 prior to placement in the CTK. This check must be documented in TC-MAX. Initial testing is waived on tools certified as cadmium-free by the manufacturer.

8.3.6.9.3. **(Added)** Conduct a chemical test every 6 months on cadmium-free CTKs to ensure that no traces of cadmium exist. Document this test in TC-MAX. Replace or decontaminate tools that fail the cadmium test. Serviceable tools that fail the cadmium test may be used in cadmium-free CTKs.

8.3.6.9.4. **(Added)** Do not store cadmium-free tools in the same location (i.e., the same drawer of a CTK) with tools containing cadmium or uncertified tools. However, cadmium-free tools may be stored in a separate drawer of CTK.

8.3.6.9.5. **(Added)** Stamp or etch an "X" after the CTK number on all hand tools certified as cadmium free and suitable for use on applicable areas of the U-2 aircraft (e.g., BDMX00001X).

8.5.1.2.1.2. **(Added)** Physical HAZMAT inventory will match TC-MAX by TC-MAX ID(s). Once the product has been used or is deemed unserviceable, the item will be consumed in TC-MAX to show accurate inventory. Before disposal of item, the TC-MAX ID marking on item will be removed.

8.5.3.4. **(Added)** Do not remove tools from a dispatchable CTK for use at another job site without production superintendent approval.

8.5.4.4. **(Added)** All units that dispatch personnel in direct support of flying operations will accomplish a semi-annual inspection on all dispatchable CTKs and equipment. Inspections will be documented in TC-MAX. Shelf life/recurring inspection can be added to TC MAX.

8.6.2.3.1. **(Added)** Do not etch flammable containers with either manual or electrical etcher. These items will be stenciled or permanently marked by non-electrical means.

8.9.2.1.1.1. **(Added)** If the lost item poses a threat to other aircraft that might taxi through the affected area, MOC will inform the SQ/CC (or equivalent), OG/CC (or equivalent) and base operations so taxi routes can be adjusted. The production superintendent will initiate a "QUICK FREEZE" and stop all maintenance activity on the affected aircraft/equipment and in the immediate area. (MUNS, QUICK FREEZE procedures do not apply)

8.9.2.1.1.2. **(Added)** Pogo Incidents that involve hardware lost during recovery operations or while the aircraft is in possession of maintenance will be treated like a lost tool/object.

8.9.2.3.3. **(Added)** MOC will complete a lost tool/object incident notification checklist and assign a control number to the lost tool/object if the tool/object is not found within the 1-hour search period.

8.9.2.3.3.1. **(Added)** In FOLs that do not operate a MOC, the Expediter/Production Superintendent will immediately notify QA and the unit's operations officer/maintenance superintendent.

8.9.2.3.4. **(Added)** MUNS maintenance supervision reviews all lost tool reports for determination of gross negligence and report of survey requirements and ensures lost tool reports are filed and IAW flight/section files maintenance plan. MUNS will not forward 145s to the Wing FOD Monitor, unless a flightline FOD hazard exists. Reports will be track in sequential order by the lost tool and object 6-digit control number.

8.9.2.3.4.1. **(Added)** Tool kits located within the MUNS controlled area are also considered controlled.

8.9.2.3.4.2. **(Added)** MUNS notifies munitions control and initiates the ACC Form 145.

8.9.2.6.4. **(Added)** If aircraft or support equipment is involved, personnel with impound authority will make the decision to impound. The decision will be relayed through MOC which will then notify QA and production superintendent and AMU/squadron supervision.

9.21.3.3. **(Added)** Appointed DIFM monitor will produce a due-in from maintenance (DIFM) slide depicting DIFM status.

11.8.3.2.2.1. **(Added)** If technical data does not specify, engine intakes shall be plugged or masked with barrier paper aft of maintenance area being performed. The Intake Maintenance Checklist (9 MXG QA Share Point) or local equivalent for FOLs will be used for FO accountability. This does not apply to inspections.

11.8.3.6.6. **(Added)** Hats will not be worn on the flight line except as follows: The MXG/CC can authorize wear of hats for cold weather or safety (i.e., watch caps, beanies, bump hats, boonie hats) but must be removed when within 50 feet from any operating aircraft engine. GSU/FOLs will follow local wing cold weather gear policy.

11.8.3.7.2. **(Added)** FOD containers will be stenciled with "FOD" in at least 2" letters. FOD pouches which will be clearly marked with letters at least ½" tall.

11.8.3.7.3. **(Added)** All FOD containers regardless of size and location, including trash receptacles, will be emptied daily or when full.

11.8.3.8.1. **(Added)** AFTO Form 350, *Reparable Item Processing Tag*, will be attached to any removed parts/components that will not be reinstalled by the end of the shift, regardless of location to end item or serviceability.

11.8.3.8.2. **(Added)** Attach screw bags to removed parts/components with unattached hardware. Document screw bag labels with Equipment I.D., nomenclature, quantity, and employee number (example: Aircraft 80-1091, Panel R-2 screws, 18 each, 01234).

11.8.3.11.1.1. **(Added)** Each unit possessing towable sweepers e.g., FOD Boss, will develop a plan for sweeper usage.

11.8.3.11.3. **(Added)** FOD walk responsibilities are as follows:

11.8.3.11.3.1. **(Added)** A Beale AFB FOD walk will be held at least annually. This will be coordinated and scheduled by the Wing FOD Monitor. All 9 RW units will participate, and inspection areas will be the runways, all taxi ways and ramps. FOLs will comply with installation policy.

11.8.3.11.3.2. **(Added)** When FOD is discovered on the flight line, the area will be cleaned immediately. If debris is excessive, personnel will contact MOC or Base Operations to request sweeper dispatch.

11.8.3.11.3.3. **(Added)** FOD walks in wash rack will be conducted by aircraft owners before assets are towed into the facility.

11.8.3.11.4. **(Added)** 9 MXS:

11.8.3.11.4.1. **(Added)** Fabrication: Inside building 1072 (Wash Rack) out to centerline of taxiway H.

11.8.3.11.4.2. **(Added)** Lockheed Martin: Inside building 1075 (Dock 2 & 3) out to centerline of taxiway H.

11.8.3.11.4.3. **(Added)** Phase: Inside building 1069 (Dock 1) out to centerline of taxiway H.

11.8.3.11.5. **(Added)** 9 AMXS:

11.8.3.11.5.1. **(Added)** APG/Specs: U-2 ramp, U-2 shelters, U-2 Delta spots, and 99 AMU support section parking lot.

11.8.3.11.6. **(Added)** T-38: T-38 parking ramp and trim pad.

11.8.3.11.7. **(Added)** Transient Alert: Transient parking area IAW service contracts.

11.8.3.11.8. **(Added)** The owning/using agency is responsible for keeping the following areas FOD free: Alert pad, including Taxiway A, Taxiway M, Dock 6.

11.8.3.12.2.1. **(Added)** Perform a thorough FOD check after exiting the cockpit. If small pieces of debris are present, the cockpit will be vacuumed.

11.8.3.12.2.2. **(Added)** Physiological Support Squadron (PSPTS) will account for all assigned equipment prior to issue and when returned after flight. Any missing item will be reported as a lost object/tool.

11.8.3.14.3. **(Added)** Securing pins and the like will be installed in holes/slots when not in use to prevent loss or damage and will be secured with a lanyard.

11.8.3.14.3.1. **(Added)** Safety wire can be used temporarily as a lanyard for caps/plugs or pins.

11.8.3.14.3.2. **(Added)** Panels removed from an aircraft that are not secured via lanyard or hinge will be documented in the aircraft forms and IMDS except as noted below to facilitate launch, recovery, and servicing actions only. The following panels do not require documentation for the U-2 aircraft: Cooling Access Panels 1L/1R/2L, Cheek Access Panels 6R/7R, Boost Pump Drain Port Access Panels 8L/8R, Access Panels 9L/9R, Forward Dorsal Housing Access Panels 2ea., Lower E-Bay Access Panel, LOX Servicing Access Panel, Nitrogen Servicing Access Panel, Power Receptacle Access Panel, and the Fuel Sump Servicing Access Door.

11.8.3.15.1. **(Added)** AGE will be inspected for foreign objects immediately after service inspection prior to dispatch to flight line and or using organization.

11.8.3.18.1. **(Added)** FOD removal tool will be attached to the key ring.

11.8.4.1.2. **(Added)** All units that conduct operations on or near the airfield will appoint a Unit FOD Monitor and an alternate and forward a letter of appointment to the 9 RW FOD Monitor (9 RW/CVF). A4 Staff is exempted from this requirement.

11.8.5.8. **(Added)** Be the point of contact for all 9 RW FOD/DOP issues, to include incidents and prevention measures at FOLs.

11.8.5.9. **(Added)** Serve as the point of contact for planning and execution of base FOD walks.

11.8.5.10. **(Added)** Immediately notify the 9 RW/CV and 9 RW/CVF of all known damage and details from FOD.

11.8.5.11. **(Added)** Be the point of contact for all 9 RW Lost Tool/ Object issues. Maintain original copies of Lost Tool/ Object reports for one year.

11.8.5.12. **(Added)** Attend pre-construction briefings for airfield construction/repairs.

11.8.6.4.5. **(Added)** All damage, regardless of size and impact on serviceability, will be reported to 9 RW/CVF.

11.8.6.9.1.4. **(Added)** Results of the investigation will be briefed to the 9 RW/CV and sent to all aircraft supervision for the affected MDS for future prevention.

11.8.6.9.2. **(Added)** QA personnel deployed to FOL’s will be acting FOD monitor.

11.8.6.9.2.1. **(Added)** All 9 RW FOD incidents at FOLs will be investigated by the host Wing FOD monitor, unless it is not established, or the FOD incident is the direct result of 9 RW deployed/assigned personnel. All 9 RW FOL's will follow home station FOD polices per AFI 21-101_ACCSUP 23 JUNE 2020.

11.8.7.1.1.2. **(Added)** Additional attendees are: 99 RS/CC, 1 RS/CC, 9 OSS/OSAA, 9 SD/SDSXE, 9 PSPTS/CC, 9 OSS/CC, T-38 Contract Representative, and Unit FOD Monitors or alternates. If a mandatory attendee is unable to attend the meeting, their deputy or alternate will attend.

11.9.1.3. **(Added)** Deployed/FOL DOP Monitor will be the QA representative that serves as the FOD monitor and maintain a DOP continuity book.

11.9.1.4. **(Added)** Immediately notify the 9 RW/CV and 9 RW/CVF of all known damage and details from DOPP incidents.

11.9.2.3.1. **(Added)** Pogo incidents that involve lost pogo hardware after aircrew takes possession of the aircraft and the pogo is not recovered, and prior to pogo jettison will be treated as a DOP and FOD control procedures will be implemented on the airfield immediately after the incident has been identified.

11.9.3.2.1.1. **(Added)** The completed ACC FOD/DOP Excel Worksheet will be sent to 9 RW DOP Monitor within 12 hours.

11.13.3.1.1. **(Added)** SNCO will be the lowest supervision level with approving authority for CANN actions. When a CANN is deemed necessary, the production superintendent will immediately notify the MOC, the DMS and production superintendent overseeing support shop maintenance if the aircraft is under control of a non-flight line maintenance function, i.e., inspection section.

11.13.3.5. **(Added)** The AMXS DO/MX SUPT or GSU/FOL equivalent are responsible for the overall management of their respective CANN programs.

11.13.3.5.1. **(Added)** The AMXS DO/MX SUPT or GSU/FOL equivalent will assign a CANN manager, (normally the DCC assigned to the aircraft) to oversee forms documentation and entries into IMDS.

11.13.5.3. **(Added)** DMS inputs CANN actions into IMDS after notification of a CANN by the production superintendent.

11.13.5.3.1. **(Added)** DMS provides a job control number to the performing work center and processes the CANN in IMDS.

11.13.5.4. **(Added)** DMS will immediately notify the production superintendent after receipt of the replacement part. The production superintendent will decide whether the part will be installed or deferred.

11.13.5.4.1. **(Added)** DMS will utilize IMDS to defer installation.

11.13.5.5. **(Added)** Production superintendents will coordinate CANN actions between units/flights when mission requirements dictate. CANN actions to fill GSU/FOL supply shortfalls require SQ/CC approval.

11.13.5.6. **(Added)** For engine-to-aircraft CANNs, the flight line production superintendent will coordinate with the production superintendent overseeing support shop functions.

11.13.5.7. **(Added)** For phase aircraft CANN, the flight line production superintendent will coordinate with the production superintendent or MX SUPT/MOO overseeing the phase inspection. No parts will be removed from the phase aircraft that will negatively impact inspection completion without SQ/CC/CD/CEM or FOL equivalent approval.

11.13.8.2.1. **(Added)** Utilize Egress CAD/PAD Cannibalization Request Form **(9 MXS OI 21-1).**

11.13.10. **(Added)** Maintenance technician responsibilities.

11.13.10.1. **(Added)** The maintenance technician removing the part is responsible for ensuring a "T" action is completed in IMDS, and documented in the aircraft AFTO 781 series forms, to include document number and job control number.

11.13.10.2. **(Added)** The maintenance technician reinstalling the part is responsible for ensuring a "U" action is completed in IMDS, and documented in the aircraft AFTO 781 series forms, to include document number and job control number.

11.14.5.1.2. **(Added)** The Hangar Queen Manager will review the aircraft AFTO Form 781 series daily and ensure no disparity with IMDS. QA will perform a rated aircraft forms and IMDS inspection every 14 calendar days.

11.14.5.1.3. **(Added)** Category 1: QA will perform a final review of all aircraft forms initiated since the last flight prior to the first flight.

11.14.5.2.1. **(Added)** Category 2: QA will perform a final review of all aircraft forms initiated since the last flight prior to the first flight.

11.16.6.2. **(Added)** Member must receive initial certification within 180 days of formal course completion. After 180 days they must re-accomplish formal training.

11.16.6.2.1. **(Added)** All personnel that go overdue will be decertified and will not accomplish inspections until properly recertified.

11.17.5.3.3.1. **(Added)** Engine run at all power levels, and shutdown procedures.

11.18.8.3.1. **(Added)** Blade blend repair action will be loaded in IMDS against the engine S/N for each applicable blade number.

11.19.3.2. **(Added)** Member must receive initial certification within 180 days of formal course completion. If not certified within 180 days, they must re-accomplish formal training.

11.28.2.5.4.1. **(Added)** AMXS and associated FOLs, will provide initial response, and tow team if required for U-2 aircraft declared IFEs. Applicable contractor will provide initial response, and tow team if required, for T-38 aircraft declared IFEs. MXS will only respond if the IFE results in an aircraft disabled on the active runway or a CDDAR event is initiated.

11.45.1.1.1. **(Added)** Local corrosion prevention training for assigned maintenance personnel (excluding 2A7X3) is provided through the ACC Griffin Maintenance Specific Training Website (**https://367trss.hill.af.mil**), "General" courses link, and course code I3ADU00TCB0002 annually. Corrosion prevention training will not be provided through maintenance block training.

11.45.1.1.1.1. **(Added)** Section training monitors will ensure personnel complete initial and annual refresher training as applicable.

11.45.1.2.2. **(Added)** Wash Rack Supervisors will train AMXS Wash Crew Supervisors on the use of the wash facility IAW **para 4.8.2.7.**. AMXS training monitors will document training in IMDS utilizing course code 16012.

11.45.1.2.3. **(Added)** AMXS Wash Crew Supervisors will train personnel tasked with washing aircraft IAW general and MDS specific Technical Orders. AMXS training monitors will document training in IMDS utilizing course code 000004.

14.2.3.2.4. **(Added)** 9 RW U-2 aircraft ADR's will be conducted every 30 days. Verify there is an **Attachment 9** (Depot Deferred Discrepancy Checklist) in the aircraft forms binder for Depot Deferred JCNs, if not, route one for approval.

14.2.4.3.2.1. **(Added)** Reconcile IMDS screen 810 with the aircraft Standard Serial Number Verification Sheet to physically verify part numbers and serial numbers of tracked items as required, and to verify any configuration discrepancies are corrected and maintained in aircraft jacket file.

14.2.5.1.1.1. **(Added)** Meetings will also include QA, Supply, Egress, or appropriate back shops.

14.2.5.1.8.1. **(Added)** Run a screen 123 (Maintenance Repair History Report) in IMDS from pre-dock to post-dock and file in the aircraft jacket file.

14.2.6.1.2. **See (Attachment 10)** for manual Job Control Numbers (JCN) block assignment. These JCNs are established only for manual input of JCNs during IMDS outages and deployment processing.

14.2.7.2.1. **(Added)** QA will ensure all records are isolated from access by unauthorized personnel until relieved by higher authority.

14.2.7.4. **(Added)** MOC will notify QA, Analysis and PS&D of the aircraft tail number, type mishap, location, and time of mishap.

14.3.1.1.1.1. **(Added)** The using organization/work center will order, manage, and dispose of HAZMAT items for applicable TCI/TCTOs utilizing the cradle-to-grave methodology. The document/requisition number will be forwarded to PS&D NLT 3 duty days after request.

14.3.3.1.5. **(Added)** The owning scheduling agency will be responsible for contacting the FOLs to confirm the applicability of the TCTO. If the FOL has an assigned scheduler, confirmation of the TCTO is still required. Example: If a TCTO is received by the AGE scheduler, it is their responsibility to contact the FOL and determine its applicability. If a scheduler is not assigned to the owning agency, PS&D shall perform the responsibilities and contact the FOLs.

14.3.4.3.5.4. **(Added)** PS&D will chair the monthly TCI reconciliation meeting. PS&D will archive AF Form 2410, Inspection/TCTO Planning Checklist / meeting minutes on the PS&D drive and keep on file for a minimum of one year.

14.3.4.3.5.1.1. **(Added)** At the monthly TCI reconciliation meeting, PS&D will brief about TCI parts on order/hand and any issues or limiting factors.

14.3.4.3.10.1.2. **(Added)** Ensure all deployed aircraft drogue chute canopy, deployment bag and repack data is accurate from chute shop prior to loading drogue chute assembly in IMDS and prior to drogue chute shipment.

14.3.4.3.12.2. **(Added)** AFE will complete all portions of the annual and quarterly TCI forecasts on AFTO Form 223, *Time Change Requirements Forecast* for AFE TCI IAW T.O. 00-20-9, *Forecasting Replacement Requirements for Selected Calendar and Hourly Time Change Items* para 3.3. AFE will submit their AFTO Form 223, *Time Change Requirements Forecast* to PS&D and AFK. TCI forecasted by AFE will be incorporated into the planning process (PS&D schedules/products).

14.6.1.5.1.5. **(Added)** Deployed schedulers will physically verify status and location for on-hand TCIs and TCTO kits.

14.7. (Added) 9 RW Static Display Aircraft Request Requirements.

14.17.1. **(Added)** All request for statics on Beale AFB will be submitted via Static Display Request, (Located on SharePoint) and will be forwarded to 9 MXG PS&D via email to (**9LSS.MXOS.AllPersonnel@us.af.mil**) no later than 3 weeks prior to the required date. At the time of request, all special requests need to be submitted and already coordinated with 9 RW Public Affairs office.

14.7.2. **(Added)** Static display requirements, if any, will be discussed at the Shared Resources meeting. PS&D will obtain SQ/SEL approval and have the static display reflected in the weekly schedule.

14.7.3. **(Added)** For retirements, more than one A/C is only authorized for senior enlisted (E-7 to E-9) and Lt Col and above (O-5 to O-10).

16.4. (Added) Distinctive Unit Identification Marking: "BB" for all U-2S, TU-2S; T-38A aircraft. Aircraft markings will be applied in accordance with the specifications outlined in AFI21-101_ACCSUP and TO 1-1-8.

GEOFFREY I. CHURCH, Colonel, USAF
Commander, 9th Reconnaissance Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*, 29 April 2020

AFMAN 21-201, *Munitions Management*, 25 March 2019

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

TO 00-20-2, *Maintenance Data Documentation*, 5 September 2019

TO 42B6-1-1, *Quality Control of Aviators Breathing Oxygen*, 6 March 2012

Prescribed Forms

ACC Form 140, *CTK Inventory and Control Log*

ACC Form 145, *Lost Tool/Object Report*

ACC FOD/DOP, *Excel Worksheet*

9RW/A4 Form 9

Adopted Forms

AF Form 847, *Recommendation for Change of Publication*

AF Form 2691, *Aircraft/Missile Equipment Property Record*

AF Form 2692, *Aircraft/Missile Equipment Transfer/Shipping Listing*

AF Form 3952, *Chemical Hazardous Material Request Authorization Form*

AFTO Form 95, *Significant Historical Data*

AFTO Form 134, *Aviator Breathing Oxygen Servicing Trailer Log (Liquid/Gaseous)*

AFTO Form 244, *Industrial/Support Equipment Record*

AFTO Form 781, *ARMS Aircrew/Mission Flight Data Document*

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

AFTO Form 781C, *Avionics Configuration and Load Status Document*

AFTO Form 781J, *Aerospace Vehicle – Engine Flight Document*

AFTO Form 781K, *Aerospace Vehicle Inspection, Engine Data, Calendar Inspection and Delayed Discrepancy Document*

Abbreviations and Acronyms

AGE—Aerospace Ground Equipment

CVF—Wing FOD/DOP Monitor

DMS—Decentralized Material Support

DO—Dropped Object

DOPP—Dropped Object Prevention Program

DR—Deficiency Report

ERV—Emergency Response Vehicles

EWS—Electronic Warfare System

MSDS—Material Safety Data Sheet

PSPTS—Physiological Support Squadron

PWCS—Personal Wireless Communication System

VFR—Visual Flight Rules

VMC—Visual Meteorological Conditions

Attachment 2 (Added)

FLYING SCHEDULING EFFECTIVENESS

A2.1. (Added) Purpose:

A2.1.1. **(Added)** Standard flying window IAW BAFBI 11-250:

A2.1.1.1. **(Added)** Monday – Thursday:

A2.1.1.2. **(Added)** 1st takeoff no earlier than 0730L.

A2.1.1.3. **(Added)** Last land no later than 2330L.

A2.1.1.4. **(Added)** Normal flying window will not exceed 12 hours.

A2.1.1.5. **(Added)** With the exception of HHQ tasking this can be as early as 0300.

A2.1.2. **(Added)** Friday or last duty day of the week:

A2.1.2.1. **(Added)** 1st takeoff will be no earlier than 0700L.

A2.1.2.2. **(Added)** Last land will be no later than 1300L.

A2.1.2.3. **(Added)** All exceptions will be approved by 9 OG/CC and 9 MXG/CC.

A2.2. (Added) Sortie Surge rules: 9 MXG PS&D will ensure the printed sortie surge rates exceed the daily sortie rate (average contracted sortie per O&M Day based on the applicable monthly sortie/flying hour contract) of the unit by at least 50 percent, but not less than the contract required sorties scheduled on the monthly contract/plan. The statement "Sortie Surge" will be printed in the remarks section of the affected day’s flying schedule.

A2.3. (Added) Unless modified by Notice to Airmen (NOTAM) or DOD. Publication and approved by 9 RW/A3, quiet hours for flying operations are 2200-0700 Monday through Thursday and 1800- 0700 Fridays. The airfield is closed on weekends, holidays and down days unless otherwise approved by the 9 RW/A3 IAW BAFBI 11-250. For official ceremonies and other related events, quiet hours will be requested through 9 OSS/OSOS.

A2.4. (Added) Cross country takeoffs and returns will be during approved airfield operation hours.

A2.5. (Added) Minimum turn times from landing to takeoff to include normal home station and sortie surge flying:

A2.5.1. **(Added)** U-2S/ST T-38.

A2.5.2. **(Added)** Low to Low: 3.0 Hours.

A2.5.3. **(Added)** Low to High: 3.5 Hours.

A2.5.4. **(Added)** High to Low: 3.5 Hours.

A2.5.5. **(Added)** High to High: 3.5 Hours.

Table A2.1. (Added) Standard aircrew ready times.

MDS	Called Crew Ready	Aircrew Show Time
U-2 Low Sortie	1+00	00+30
U-2 High Sortie	1+30	00+60
T-38	1+00	00+20

A2.6. (Added) Standard scheduling timelines and schedule format rules:

A2.6.1. **(Added)** Monthly contracts will be electronically delivered by 9 OSS/OSO Operations Scheduler to 9 MXG PS&D NLT Wednesday the first week of the month for the following month's schedule.

A2.6.2. **(Added)** Weekly operations requirements will be electronically delivered by the OSS Operations Scheduler to 9 MXG PS&D NLT 1400 Tuesday prior to the next week's flying period.

A2.6.3. **(Added)** Weekly flying schedules will be electronically delivered to 9 MXG PS&D office email box by the dedicated AMU schedulers NLT 1300 Wednesday.

A2.6.4. **(Added)** All monthly and weekly schedules to include sortie surges will be completed IAW electronic formatted template provided by 9 MXG PS&D. Any changes or additions will require coordination with 9 MXG PS&D.

A2.6.5. **(Added)** Exceptions to above standards require approval from SQ/CC.

Attachment 3 (Added)

MAINTENANCE SCHEDULING EFFECTIVENESS.

A3.1. (Added) PS&D will inform AMU supervision of previous weeks MSE.

A3.2. (Added) Review screen 122 in IMDS NLT 0900 daily for the previous day's maintenance to determine if maintenance actions were completed.

A3.3. (Added) Notify AMU supervision and brief at the daily morning meeting of all maintenance actions not completed.

A3.4. (Added) Compute maintenance scheduling effectiveness rates before 1000 on the first duty day after each effective week.

A3.5. (Added) Operations (OP). Deviations resulting from operations/aircrew actions, mission changes causing an early/late take-off, or cancellation including substitution/aircrew illness (including short notice aircrew physical/mental disqualification), and over-stressing the aircraft. OP_ are also deviations resulting from unit-controlled operations factors including those caused by mission/load planning, life support/ PSPTS, intelligence, base operations, range scheduling, and passengers.

Attachment 4 (Added)

FLYING SCHEDULING REPORTING PROCEDURES

A4.1. (Added) Sortie Sequence Numbers. To allow for accurate tracking of statistics, the below listed sortie sequence numbers will be used by all Aircraft Maintenance Units and Operating Squadrons assigned to Beale AFB.

Table A4.1. (Added) U-2S/ST and T-38 Sortie Sequence Numbers for Beale AFB.

SQUADRON	1 RS U-2S/ST	99 RS U-2S/ST	T-38
PDM/DEPOT INPUT/OUTPUT	001-010	001-010	
Normal Flying Schedule	101-120	901-929	601-630
FCF / OCF	135-140	935-945	635-655
Added Sorties	150-170	950-970	656-670
X-Country / Busy Relay / ESTA	171-180	971-980	671-690
Exercise	181-190	981-990	X
Higher Headquarters	191-199	991-999	X

Attachment 5 (Added)

DEPLOYED OPERATIONS AND OFF-STATION SORTIES

Table A5.1. (Added) Sortie Sequence Numbers for Detached U-2S/ST Units.

SQUADRON	5 RS U-2S/ST	1 ERS U-2S/ST	99 ERS U-2S/ST
Normal Flying Schedule	501-520	301-320	801-820
FCF / OCF	535-540	335-340	835-840
Added Sorties	550-560	350-360	850-860
X-Country/Busy Relays/ESTA	561-570	361-370	861-870

Attachment 6 (Added)

U-2 AIRCRAFT DEBRIEFING "RED X" CRITERIA LISTING

A6.1. (Added) Aircraft Debriefing Red X Criteria Listing.

Table A6.1. (Added) Aircraft Debriefing "Red X".

5. HOT OR COLD INOP IN MANUAL
6. WINDSCREEN ANTI FOG INOP
7. WINDSCREEN ANTI ICE INOP
8. INFLATABLE SEAL SYSTEM MALFUNCTIONS
9. NOSE, E-BAY, COCKPIT OR Q-BAY DOES NOT PRESSURIZE
10. COCKPIT AIR PRESSURE SURGES
11. INCORRECT PRESSURE DIFFERENTIAL BETWEEN COCKPIT AND Q-BAY/E-BAY
42000 – ELECTRICAL POWER
1. UTILITY OR EMERGENCY BATTERY FAILURE
2. GENERATOR FAILURE (AC, DC, OR STANDBY)
3. BUS FAILURE (ANY AC OR DC SYSTEM)
4. TR UNIT FAILURE
5. EMERGENCY INVERTER FAILURE
6. BCCU MALFUNCTION/FAILURE
44000 – LIGHTING SYSTEM
DAYTIME MISSION:
1. EXTERIOR (BOTH UPPER ANTICOLLISION, AND BOTH LANDING LIGHTS INOP) NIGHTTIME MISSION:
2. ANY PRIMARY INSTRUMENT OF ENGINE PERFORMANCE INTERIOR LIGHT IS INOP
3. EXTERIOR LIGHTS (ONE POSITION, BOTH UPPER ANTICOLLISION, OR BOTH LANDING LIGHTS INOP)
45000 – HYDRAULIC POWER SYSTEM
1. SYSTEM SURGING OR FAILURE
2. MALFUNCTION IN INDICATING SYSTEM
46000 – FUEL SYSTEM
1. FEED PROBLEMS
2. FUEL IMBALANCE
3. UNCOMMANDED FUEL DUMPING OR VENTING
4. BOOST PUMP DISCREPANCY

5. TRANSFER PROBLEMS
6. SUMP DWELL/LOW FUEL LEVEL
7. INDICATION PROBLEMS/MALFUNCTIONS TOTALIZER
47000 – OXYGEN SYSTEM
1. ACTUAL OR SUSPECTED CONTAMINATION
2. CONTROL PANEL MALFUNCTIONS
3. OXYGEN SYSTEM DEPLETED
4. INDICATION MALFUNCTION
5. ANY PRESSURE OR QUANTITY ANOMALIES
6. EXCESSIVE QUANTITY LOSS
49000 – MISCELLANEOUS UTILITIES
1. ENGINE OR AMAD OVERHEAT
2. FIRE/OVERHEAT/BLEED AIR INDICATION
3. WCA PANEL INOP
51000 – INSTRUMENTS (U-2S, FCP ONLY U-2ST)
1. AIRSPEED INDICATOR INOP OR DIFFERENCE BETWEEN SAI AND MDI OF:
BELOW 118 KTS – 4.0 KTS
AT OR ABOVE 118 KTS – 6.5 KTS - AT OR ABOVE 190 KTS – 7.0 KTS
2. AIRSPEED INDICATOR INOP OR DIFFERENCE BETWEEN PFD AND SFD
3. ALTIMETER INDICATOR INOP OR + 75 FT DIFFERENCE (MAIN OR STANDBY)
4. HSI INOP OR + 4 DEGREES FROM INS HEADING ON BCDU OR + 5 DEGS FROM A FIXED REFERENCE (VOR, TACAN)
5. ADI INOP
6. MDI FAILURE
52000 – AUTOMATIC FLIGHT CONTROLS SYSTEM
1. TOTAL FAILURE
2. APADS INOP
3. INABILITY TO MAINTAIN SELECTED PARAMETERS WITHIN SAFE LIMITS
57000 – INTEGRATED GUIDANCE (INS/GPS)
1. INS INOP
2. BCDU MALFUNCTION (U-2S, EITHER COCKPIT U-2ST)
3. GPS INOP (ACCEPTABLE FOR LOW SORTIES)
62000 VHF COMMUNICATIONS (U-2S, EITHER COCKPIT U-2ST)
1. RADIO INOP (UHF MUST BE OPERABLE)

2. PRIMARY AND BACKUP INOP (ARC 210)
3. UFCD INOP FOR VHF
63000 UHF COMMUNICATIONS (U-2S, EITHER COCKPIT U-2ST)
1. RADIO INOP (VHF MUST BE OPERABLE)
2. PRIMARY AND BACKUP INOP (ARC 210)
3. UFCD INOP FOR VHF
64000 – INTERPHONE
1. U-2S INOP
2. U-2ST MUST BE ABLE TO TALK BETWEEN COCKPITS
65000 – IFF SYSTEM AN/APX-101
1. TWO OR MORE STATIONS REPORT PROBLEMS
2. TOTAL INOP
3. MODE C INOP
4. UFCD INOP FOR IFF
71000 – RADIO NAVIGATION
1. TACAN INOP
2. ARS INOP
3. ILS INOP OR ERRONEOUS READING
82000 – BLOCK 20 AVIONICS
1. AVP FAILURE
2. SFD INOP
3. REAR COCKPIT MFD INOP
4. CENTER MFD INOP
5. BOTH LEFT AND RIGHT MFD’S INOP
11000 – AIRFRAME
1. ITEMS LOST OR MISSING
2. BIRDSTRIKE OR LIGHTNING STRIKE
3. HARD LANDING
4. OVER-G/OVERSPEED
5. ICING
12000 – CANOPY OR COCKPIT
1. MALFUNCTION IN CANOPY LOCKING SYSTEM
2. CANOPY UNSAFE INDICATION
3. F.O. IN COCKPIT

4. WINDSCREEN CRACKED/DISTORTED
13000 – LANDING GEAR SYSTEM
1. RETRACTION OR EXTENSION FAILURE
2. UNSAFE INDICATIONS
3. BRAKES INOP
4. MAIN OR TAIL WHEEL SHIMMY
5. TAIL WHEEL STEERING
6. HOT BRAKES
14000 – MANUAL FLIGHT CONTROLS
1. ANY MANUAL FLIGHT CONTROL
2. UNCOMMANDED INPUTS TO FLIGHT CONTROL SYSTEM
3. CONTROL WHEEL NOT CENTERED (EXCEEDS 12 DEGREES)
27000 – POWER PLANT
ALL DISCREPANCIES
41000 – ENVIRONMENTAL CONTROL SYSTM (ECS)
1. COCKPIT PRESSURE LOSS OR FLUCTUATIONS
2. COCKPIT PRESSURIZES ON GROUND
3. UNUSUAL TURBINE NOISE/VIBRATION
4. SMOKE AND OR ODORS DETECTED IN COCKPIT

Attachment 7 (Added)

U-2 FCF PROGRAM

A7.1. (Added) U-2 FCF Program.

A7.1.1. **(Added)** FCF PILOT TRAINING AND CERTIFICATION. Follow the FCF training program checklist developed by the 9 OG/FCF OIC.

A7.1.2. **(Added)** Only highly qualified and experienced U-2 instructor pilots are selected as U-2 FCF pilots. Minimum qualifications are 500 U-2 hours for FCF certification.

A7.1.3. **(Added)** U-2 instructor pilots receive FCF mobile training as part of the instructor upgrade syllabus and are qualified to mobile FCF missions.

A7.1.4. **(Added)** U-2 FCF flight certification. One FCF certification flight is required and will be flown in a two seat U-2 aircraft if available. When flown in a two seat U-2, the sortie may be a training sortie or actual FCF and will be flown with a current FCF pilot. When flown in a single seat U- 2, the sortie will be a training sortie and a current FCF pilot will act as the mobile. When a single seat U-2 is used for certification, the upgrade pilot and FCF pilot mobile will be scheduled for a CTP session on mission planning day before the flight.

A7.1.5. **(Added)** When flying a practice FCF profile does not press battery EMER OVRIDE, as this will require maintenance action after the flight. All other electrical steps in the FCF checklist may be accomplished providing the aircraft is VMC and visual contact with the ground can be maintained. Fly practice FCF sorties with modified Dash –6 checklist boards developed by the 1 RS and the FCF/OIC.

A7.2. (Added) Currency and Crew Duty Day.

A7.2.1. **(Added)** U-2 FCF pilots will have a 90-day currency on FCF sorties. U-2 pilots may update currency on a training sortie by mission planning and flying with the appropriate practice FCF boards and performing flight control checks, manual gear extension, PRI/SEC checks, electrical sequence checks and or IFA checks. Pilots do not need to accomplish all of these items to up-date currency.

A7.2.2. **(Added)** If FCF currency is lost it may be regained by flying a practice FCF profile under the supervision of a current FCF pilot/mobile.

A7.2.3. **(Added)** U-2 FCF pilots will maintain a 45-day SFO currency for FCF missions.

A7.2.4. **(Added)** Detachment/OL/Mission commanders may extend FCF pilot currency if the necessity for an FCF arises at an off-station location without a more highly qualified pilot available.

A7.2.5. **(Added)** U-2 FCF pilots have a 10-hour crew duty day. When the pressure suit is worn, suit up time to landing will not exceed 6 hours. High flight transition duty day limits still apply.

A7.3. (Added) Scheduling.

A7.3.1. **(Added)** Aircrew scheduling will notify the pilot, mobile and the FCF OIC of the FCF with sufficient time for mission preparation. Short notice FCFs requires direct notification to the pilot and mobile.

A7.3.2. **(Added)** Aircrew scheduling will incorporate the FCF into the flying schedule and notify QA of the scheduled time.

A7.3.3. **(Added)** The selected pilot/mobile will contact QA as part of their mission planning to discuss the particulars of the FCF and to coordinate the preflight QA briefing and forms review. The preflight briefing will be held 2 hours prior to takeoff at a location determined by QA.

A7.4. (Added) FCF Pilot Procedure and Restrictions.

A7.4.1. **(Added)** Follow established procedures for mission planning.

A7.4.2. **(Added)** Review FCF procedures prior to flight. At a minimum review ACC 21-101, T.O. 1-1-300, Dash-6, and Dash-6 mission boards.

A7.4.3. **(Added)** Pilot and mobile will meet at the ops center NLT 2+30 and proceed to base ops. If weather meets FCF criteria, file and proceed to QA for aircraft history and forms review.

A7.4.4. **(Added)** Receive aircraft maintenance and status briefing from QA prior to flight. Verify that all maintenance is accomplished with complete documentation. All open write-ups and ERs must be signed off prior to pilot accepting the aircraft. Final acceptance may be accomplished on the flight line if the aircraft is essentially ready to go at the QA briefing.

A7.4.5. **(Added)** Review/brief requirements with the mobile officer prior to flight. This review/brief should include Dash-1 and Dash-6 procedures, expanded preflight procedures, weather requirements, flight following procedures and expected pilot/mobile plan of action in the event of an in-flight emergency.

A7.4.6. **(Added)** Mobile will record all ground Mobile Officer items on the pilots FCF board and perform preflight IAW procedures.

A7.4.6.1. **(Added)** Pay special attention to systems/areas in which maintenance was performed requiring the FCF.

A7.4.7. **(Added)** Pilot show at aircraft is normally 45 minutes prior, with engine start 15 minutes prior to scheduled launch, to allow sufficient time to inspect systems and record data on FCF boards.

A7.4.8. **(Added)** Verify proper operation and displacement of all flight controls with ground crew and verify proper rudder and turn response with mobile.

A7.4.9. **(Added)** Use maximum runway availability for launch when practical. FCFs on a second attempt or when major maintenance was not performed may use intersection takeoffs IAW with local procedures.

A7.4.10. **(Added)** U-2 mobile officer will flight follow the U-2 on UHF or VHF radio from takeoff to the point where the aircraft is climbing above FL600 and then again during the descent to landing.

A7.4.11. **(Added)** U-2 pilots will remain within glide distance of the primary landing base, or a suitable alternate, until all engine and fuel checks have been accomplished.

A7.4.12. **(Added)** U-2 FCF minimum weather is day, VMC and 3 miles visibility. OG/CC or designated representative (Detachment/OL/Mission Commander) is waiver authority for T.O. 1-1-300 Para 6.2.. Authorizing VFR on top FCFs. When conducting VFR on top FCF missions,

minimum weather at departure base is 5000 AGL and 5 miles visibility and all FCF checklist items must be conducted in VMC.

A7.5. (Added) Any of the Following Would Cause an FCF to be a non-Release:

A7.5.1. **(Added)** Any system malfunction that does not allow the aircrew to complete the FCF. If the original condition that generated the FCF check good, and the only item(s) not checked can be easily evaluated by a pilot on a normally scheduled sortie, then the aircraft can be released with a write-up to check the item(s).

A7.5.2. **(Added)** Any system malfunction that would in the course of correcting the malfunction generate another FCF (Example: Flight control rigging problems, or EFTC replacement)

A7.5.3. **(Added)** Engine surges, compressor stalls or flameout.

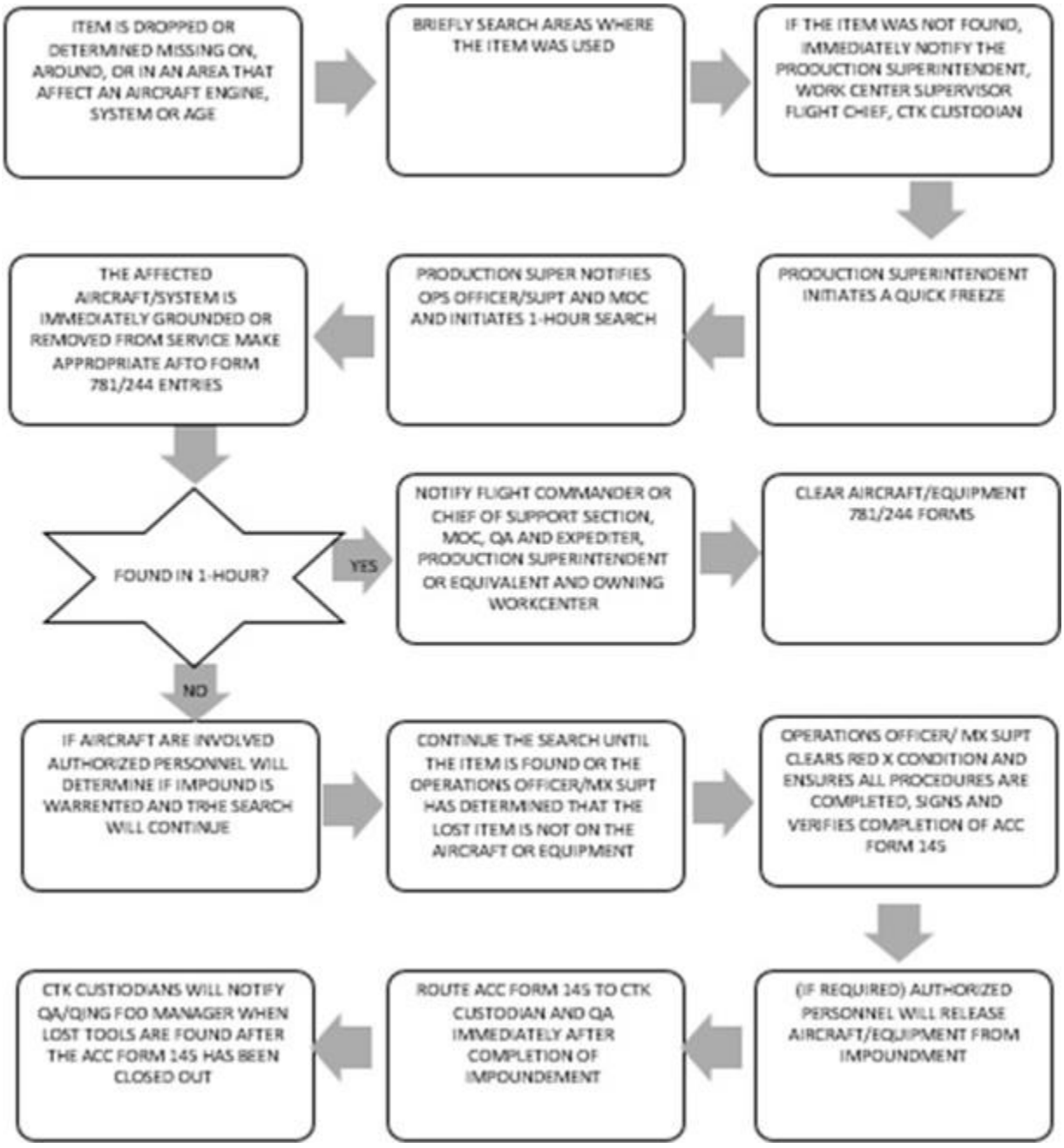
A7.5.4. **(Added)** Critical systems that do not meet criteria. Critical items on the Dash-6 checklist boards are identified with an asterisk.

A7.5.5. **(Added)** If a malfunction or series of malfunctions occur that the FCF pilot feels should be evaluated more closely; he/she has the option of not releasing the aircraft.

Attachment 8 (Added)

LOST TOOL/OBJECT FLOW CHART

Figure A8.1. (Added) Lost Tool/Object Flow Chart.



Attachment 9 (Added)

DEPOT DEFERRED DISCREPANCY CHECKLIST

A9.1. (Added) Depot Deferred Discrepancy Checklist.

Figure A9.1. (Added) Depot Deferred Discrepancy.

Date:_____
ACFT:_____
JCN:_____

DISCREPANCY:_____
_____
_____
_____
REASON FOR DEPOT LEVEL REPAIR STATUS: DEPOT LEVEL MAINTENANCE
_____
LOCKHEED MARTIN:
CONCUR/NONCONCUR:
_____

AMU Plans Scheduling & Documentation initiates form and routing sequence.

Lockheed Martin: (verification of beyond field level repair capability)
CONCUR/NONCONCUR:
SIGN: _____
PRINT:_____

Maintenance Officer/Superintendent
CONCUR/NONCONCUR:
SIGN:_____
PRINT:_____

Quality Assurance
CONCUR/NONCONCUR:
SIGN: _____
PRINT:_____

9 MXG/CC (or designated Representative)
CONCUR/NONCONCUR:
SIGN: _____
PRINT:_____

Return to AMU Plans Scheduling & Documentation for filing into aircraft jacket file.
Filed by Signature: _____

Attachment 10 (Added)

MANUAL JOB CONTROL NUMBERS

A10.1. (Added) Manual Job Control Numbers.

Figure A10.1. (Added) T-38 AGD38.

T-38 AGD38	2000-2249

Figure A10.2. (Added) 9th Aircraft Maintenance Squadron / 99th Aircraft Maintenance Unit.

PLANS, SCHEDULING, & DOCUMENTATION	2250-2299
DEBRIEF	2300-2349
SUPPORT	2350-2399
REDBALL	2400-2449
TCTO / TCI / SI / CANN	2450-2499
E&E ELEMENT	2500-2549
SPEC SECTION	2550-2599
ACFT SECTION	2600-2649

Figure A10.3. (Added) 9th Maintenance Group.

U2 QUALITY ASSURANCE	2650-2699
T38 QUALITY ASSURANCE	2700-2749

Figure A10.4. (Added) 9th Maintenance Group / Contract Field Teams.

U2 DEPOT TEAM	2750-2799
T38 DEPOT TEAM	2800-2849

Figure A10.5. (Added) 9th Maintenance Operations Flight.

ENGINE MANAGEMENT	2850-2899
MAINTENANCE TRAINING	2900-2949
PLANS, SCHEDULING, & DOCUMENTATION	2950-2999

Figure A10.6. (Added) 9th Maintenance Squadron/Propulsion Flight.

JEIM	3000-3049
ENGINE PERIODIC INSPECTION	3050-3099
PROPULSION FLIGHT	3100-3149

Figure A10.7. (Added) 9th Maintenance Squadron/Accessory Maintenance Flight.

EGRESS	3150-3199
ECS / ELECTRICS	3200-3249
FUELS	3250-3299
ACCESSORIES FLIGHT	3300-3349
SURVIVAL EQUIPMENT	3350-3399
PNEUDRAULICS	3400-3449

Figure A10.8. (Added) 9th Maintenance Squadron/AGE Flight.

SUPPORT	3450-3499
PLANS, SCHEDULING & DOCUMENTATION	3500-3549
PERIODIC / MAJOR MAINTENANCE	3550-3599
SERVICING / MINOR MAINTENANCE	3600-3649
AGE FLIGHT	3650-3699

Figure A10.9. (Added) 9th Maintenance Squadron/Fabrication Flight.

NDI	3700-3749
STRUCTURAL MAINTENANCE	3750-3799
FABRICATION FLIGHT	3800-3849
METALS TECHNOLOGY	3850-3899

Figure A10.10. (Added) 9th Maintenance Squadron/Maintenance Flight.

PERIODIC INSPECTION	3900-3949
SUPPORT	3950-3999
AIRCRAFT REPAIR & RECLAIM	4000-4049
MAINTENANCE FLIGHT	4050-4099
TRANSIENT AIRCRAFT	4100-4149
WHEEL & TIRE	4150-4199

Figure A10.11. (Added) 9th Maintenance Squadron/Avionics Flight.

SYERS	4200-4249
ASARS	4250-4299
EWS	4300-4349
IADL / DDL II	4350-4399

Figure A10.12. (Added) 9th Munitions Squadron.

SUPPORT ELEMENT	4400-4449
MAINTENANCE ELEMENT	4450-4499
INSPECTION / OPS ELEMENT	4500-4549
COMM	4550-4599

Figure A10.13. (Added) 1st Reconnaissance Squadron.

AIRCREW LIFE SUPPORT	4600-4649

Figure A10.14. (Added) 5th Reconnaissance Squadron.

ENGINE MANAGEMENT	4650-4699
SUPPLY	4700-4749
LINK CONTRACTORS	4750-4799
PME-12 SENSORS	4800-4849
SPECIALIST SHOP	4850-4899
AIRCRAFT SECTION	4900-4949
E & E SHOP	4950-4999
SHEET METAL	5000-5049
FUELS SYSTEM	5050-5099
EGRESS	5100-5149
AGE	5150-5199
STRUCTURAL MAINTENANCE	5200-5249
LOCKHEED	5250-5299
ASARS CONTRACTORS	5300-5349
ELECTRONIC WARFARE	5350-5399
SYERS	5400-5449
QUALITY ASSURANCE	5450-5499
PLANS, SCHEDULING & DOCUMENTATION	5500-5549

Figure A10.15. (Added) 1st Expeditionary Reconnaissance Squadron / Maintenance Flight.

LOCKHEED	5550-5599
BACKSHOP	5600-5649
AGE SHOP	5650-5699
QUALITY ASSURANCE	5700-5749
PLANS, SCHEDULING & DOCUMENTATION	5750-5799
AIRCRAFT SECTION	5800-5849
SPECIALIST SECTION	5850-5899

SENSORS	5900-5949

Figure A10.16. (Added) 99th Expeditionary Reconnaissance Squadron / Maintenance.

LOCKHEED	5950-5999
BACKSHOPS	6000-6049
AGE SHOP	6050-6099
QUALITY ASSURANCE	6100-6149
PLANS, SCHEDULING & DOCUMENTATION	6150-6199
AIRCRAFT SECTION	6200-6249
SPECIALIST SECTION	6250-6299
SENSORS	6300-6349
PERIODIC INSPECTION	6350-6399

Figure A10.17. (Added) 372nd Training Squadron Detachment 21.

9 RW	6400-6449

Figure A10.18. (Added) 1C10/0U00 Work Centers.

C UNIT	6450-6499
G UNIT	6500-6549

Attachment 11 (Added)

WWID LIST

Figure A11.1. (Added) WWID List.

UNIT	WWID
9 AMXS	
99 AMU	BDAM
9 MXS / Accessories Flight	
Egress	BDMA
Fuels	BDMB
EE/Battery Shop	BDME
LOX Bay	BDML
9 MXS / AGE	BDMG
9 MXS / Fabrication Flight	
NDI	BDMN
Sheet Metal / Corrosion	BDMS
Metals Tech	BDMM
9 MXS / Propulsion Flight	BDMP
9 MXS / Maintenance Flight	
Phase / AR / Contractor	BDMX
9 MXG QA	BDQA
9 PSPTS	BDPD
9 MUNS	BDMU
372nd TRS, Det 21	BDTD
Lockheed Martin	LMSW
T-38 Contractor	BDMO
Mission Systems Section	BDCM
OBC	BDMX00-50
BAE	OA- 071A
L3 / Data Link	SPUR01
SYERS	BDAMP ME4A-Z
SARS	OA-022

1 ERS	BD4R
99 ERS	BD99
1 RS Life Support	BDLS
5 RS	BD5R