BY ORDER OF THE COMMANDER
AIR COMBAT COMMAND

DEPARTMENT OF THE AIR FORCE
INSTRUCTION 21-101

AIR COMBAT COMMAND
Supplement

ADDENDUM C

12 DECEMBER 2023

Maintenance

AIRCRAFT AND EQUIPMENT MAINTENANCE MANAGEMENT (REMOTELY PILOTED AIRCRAFT)

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This addendum implements DAFI 21-101_ACCSUP, *Aircraft and Equipment Maintenance Management*. This addendum prescribes policies and procedures governing aerospace equipment maintenance management of Remotely Piloted Aircraft (RPA) and Ground Control Stations (GCS) for ACC. The Air National Guard (ANG), or Air Force Reserve Command (AFRC) may adopt this addendum, as required, to supplement their MAJCOM supplement to AFI 21-101; however, ANG/AFRC personnel assigned to Classic Associate Units will comply with the guidance provided within this addendum. Maintenance units will use this addendum in conjunction with the ACC supplement to DAFI 21-101; if a conflict exists between the ACC supplement and this addendum, the addendum will take precedence. This publication does not apply to the United States Space Force. The authorities to waive wing and unit level requirements in this publication are identified with a tier ("T-0, T-1, T-2, and T-3") number following the compliance statement. See DAFMAN 90-161, *Publishing Processes and Procedures,* 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. For questions on interpreting this instruction, first contact your MAJCOM maintenance functional activity. Units may publish a single supplement to consolidate local policies mandated by the DAFI and this addendum. Supplements must be written IAW DAFI 90-160, *Publications and Forms Management*. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW AFI 33-322, *Records Management and Information Governance Program*, and disposed of IAW Air Force Records Information Management System Records Disposition Schedule. Contact supporting records managers as required. Send comments, questions, and suggested improvements to this publication on DAF Form 847, *Recommendation for Change of Publication*, through channels to HQ ACC/A4IQ, 130 Douglas Street, Suite 210, Langley AFB, VA 23665-2791.

Chapter 1

MANAGEMENT OVERVIEW, SUPPORTING CONCEPTS AND REQUIREMENTS.

1.2. Organization. RPA units will organize IAW AFI 38-101, *Manpower and Organization*. **(T-2)** To establish an Aircraft Communication Maintenance Squadron (ACMS)/Aircraft Communications Maintenance Unit (ACMU), the unit will require an approved Organization Change Request (OCR). **(T-2)**

1.3. Maintenance Concept. The Remotely Piloted System (RPS) will not receive a status as a complete unit. Each RPA and Ground Control System (GCS) will receive a status as "A" type equipment and communication link equipment will receive a status as "C" or "R" type equipment per TO 00-20-2, *Maintenance Data Documentation*. **(T-2)** GCS tail number is synonymous with aircraft tail number when documenting MIS.

1.6. Maintenance Discipline.

1.6.4. (**Added)** Maintenance personnel shall not perform flight operations. **(T-2)**

Chapter 2

ROLES AND RESPONSIBILITIES

2.3. Wing Vice Commander (WG/CV) Responsibilities.

2.3.3. **(Added)** Establish local and Remote Split Operation (RSO) maintenance debrief procedures based on this addendum and AFMAN 11-2MQ-9V3, *MQ-9—Operations Procedures*. **(T-2)**

2.4. Maintenance Group Commander (MXG/CC) Responsibilities.

2.4.76. (**Added)** Establish procedures to ensure uninterrupted power is available to GCS and related communications equipment in the event of a primary power outage. **(T-2)**

2.4.76.1. (**Added)** Ensure an annual back up power automatic switching operational check is performed. **(T-2)** Establish additional recurring inspection(s) based upon manufacturer recommendations.

2.4.77. (**Added)** Ensure a Service Level Agreement (SLA) exists between the host/local Communication Squadron, base Civil Engineering Squadron, and the MXG. **(T-2) Note:** See **Attachment 20** for template.

2.4.78. (**Added)** Establish Command and Control (C2) frequency de-confliction procedures. **(T-2)**

2.4.79. (**Added)** Ensure RPA communication systems and network infrastructures remain accredited with current authority to operate certification. **(T-2)**

2.9. Maintenance Supervision Responsibilities.

2.9.23. (**Added)** Coordinate RPA network requirements with local Communications Squadron. **(T-2)**

2.9.24. (**Added)** Maintain a climbing program IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards* and **Chapter 11** of this instruction. **(T-2)**

2.13. (Added) GCS Maintenance.

2.13.1. (**Added) Aircraft Communications Maintenance Flight, Unit, or Squadron.** This section is responsible for GCS and Network Management systems troubleshooting, on-equipment repairs, component removal and replacement, classified item management, servicing, and cleaning. The section may include Communications and Network Management technicians. **Note:** If authorizations do not warrant Unit or Squadron construct, Flight or Section, may be incorporated in to AMXS/MXS.

2.13.1.1. (**Added) Aircraft Communications Maintenance Supervision.** In addition to the common responsibilities in **Chapter 3** of this instruction, the ACMU/ACMS Supervision will:

2.13.1.1.1. (**Added)** Promote cross-talk with applicable maintenance units to obtain information on system and component repeat, recur and could not duplicate trends. **(T-2)**

2.13.1.1.2. (**Added)** Manage the climbing certification program IAW DAFMAN 91-203 and **Chapter 11**. **(T-2)**

2.13.1.2. (**Added) GCS Production Superintendent.** The GCS Production Superintendent position applies to an ACMU/ACMS organizational construct. The GCS Production Superintendent will: **Note:** The Flightline Production Superintendent assumes these responsibilities when an Aircraft Communication Maintenance Flight or Section is incorporated in to the AMXS/MXS. **(T-2)**

2.13.1.2.1. **(Added)** Determine, track, and report GCS status, including Estimated Time in Commission (ETIC), IAW DAFI 21-103, *Equipment Inventory, Status and Utilization Reporting* and MAJCOM/local directives for unit owned GCS(s). **(T-2)**

2.13.1.2.2. **(Added)** Perform duties outlined in **Chapter 3** of DAFI 21-101 and the ACC Supplement. **Note:** GCS Production Superintendents will not perform Crash Damaged or Disabled Aircraft Recovery (CDDAR) Program activities, flightline munitions, or propulsion flight coordination activities. **(T-2)** These functions are performed by Flightline Production Superintendent.

2.13.1.2.3. **(Added)** Deconflict dedicated maintenance and operations C2 frequency use in order to preserve safety of flight during flying hours. **(T-2)**

2.13.1.2.3.1. **(Added)** For daily MQ-9 operations, coordinate with Operations Squadron to schedule available Line of Sight (LOS) frequency usage and/or satellite time. **(T-2)**

2.13.1.2.4. **(Added)** Ensure forms and/or Maintenance Information System (MIS) documentation is complete, accurate and accomplished. Ensure equipment status is accurately reflected in the maintenance forms and/or the MIS. Ensure local tracking and updating of deferred Preventive Maintenance Inspections IAW TO 00-33A-1001, *General Communications Activities Management Procedures and Practice Requirements*. **(T-2)**

2.13.1.3. (**Added) Ground Control Station (GCS) Expediter.** Use of GCS Expediter is optional in RPA Units. If no GCS Expediter is used, GCS Expediter duties will be accomplished by GCS Production Superintendent. **(T-3)**

2.13.1.3.1. (**Added)** The GCS Expediter reports to the GCS Production Superintendent and manages, controls, and directs maintenance actions and resources. The GCS Expediter is equivalent to the Flightline Expediter within the ACMU/ACMS. Responsibilities identified in DAFI 21-101, paragraph 3.6. (Aircraft is synonymous with GCS) apply unless specifically addressed in this addendum. The GCS Expediter will:

2.13.1.3.1.1. **(Added)** Coordinate the maintenance effort with the Maintenance Operations Center (MOC) and other expediters/squadrons (as applicable) for support. **(T-2)**

2.13.1.3.1.2. **(Added)** Maintain and have access to copies of the following: flying schedule, emergency action and functional checklists, base grid map with cordon overlay, IPI listings, Minimum Essential

Subsystem List, Quick Reference List (if developed), and tracking device for GCS status. **(T-2)**

2.13.1.3.1.3. **(Added)** The GCS Expediter will not perform munitions accountability, Oil Analysis Program or CDDAR functions. **(T-2).** These functions are completed by the Flightline Expediter at locations with aircraft assigned. The GCS Expediter will coordinate AGE requirements in support of GCS and related Communications Equipment (C-E). **(T-2).**

2.13.1.3.1.4. **(Added)** GCS Expediters will not perform production inspections (e.g., sign off "Red Xs" and perform IPIs) unless waived to do so by the MXG. **(T-3)**

2.13.1.4. (**Added) GCS Technician.** GCS Technicians will:

2.13.1.4.1. (**Added)** Coordinate GCS downtime for scheduled and unscheduled maintenance with GCS Production Superintendents and GCS Expediters. **(T-2)**

2.13.1.4.2. (**Added)** Ensure Due-In from Maintenance assets within their control are turned into LRS. **(T-2)**

2.13.1.5. (**Added) GCS Debrief.**

2.13.1.5.1. (**Added)** Organizations/locations without an AMXS (MCE only) Aircraft Communications Maintenance Flight/Section/Unit/Squadron will ensure an adequate number of debrief qualified personnel are assigned and will follow the debrief procedures outlined in paragraph 3.7, Aircrew and Maintenance Debrief Section.

Chapter 3

AIRCRAFT MAINTENANCE SQUADRON (AMXS)

3.4. AMU OIC/Superintendent Responsibilities.

3.4.5. (**Added)** For AMUs with Aircraft Communications Maintenance Flight/Section, monitor climbing certification program IAW DAFMAN 91-203 and **Chapter 11** of this instruction. **(T-2)**

3.7. Aircrew and Maintenance Debrief Section.

3.7.13. (**Added)** Debrief section will coordinate with local MIS database managers to use screen 578 "Build Custom Standard Reporting Designator Table" to build the ID-on-ID relationships. **(T-2)**

3.7.14. (**Added)** RPS Debrief Procedures: Launch Recovery Element (LRE)/Mission Control Element (MCE) landing status and mission capable status will be tracked separately from aircraft landing status and mission capable status. **(T-2)** Aircraft and LRE/MCE will retain separate aerospace vehicle AFTO 781 Series Forms binders. **(T-2)**

3.7.14.1. **(Added)** For sortie generation, each aircraft, LRE, and MCE will use separate line numbers. **(T-2)**

3.7.14.1.1. **(Added)** Line numbers will be matched in a way allows correlation. Example: Aircraft line 901 will correspond to LRE launch line 301, LRE recovery line 501, and MCE line 401. **Note:** Line numbers do not have to be designated by 100s. **(T-2)**

3.7.14.1.2. **(Added)** A sortie modifier is a subset of a line number and represents the period of time an aircrew operated an aircraft and LRE/MCE during a flying period.

3.7.14.1.2.1. **(Added)** An LRE will have a separate line number for each launch and recovery event when a maintenance action such as a TH, BPO, or PR is accomplished in between. **(T-2)**

3.7.14.1.2.2. **(Added)** An MCE may use multiple sortie modifiers when aircrew changes are performed during the duration of a sortie.

3.7.14.1.2.3. (**Added)** Aircraft will not use multiple sortie modifiers. **(T-2)**

3.7.14.1.3. **(Added)** If sortie modifiers are used, each sortie modifier will be debriefed by the aircrew that flew the portion of the sortie represented by the modifier. **(T-2)**

3.7.14.1.3.1. **(Added)** For each line number that utilizes multiple sortie modifications, debriefs will occur with each crew for each segment of the mission they controlled. **(T-2)**

3.7.14.1.3.2. **(Added)** Each MCE will have a single line number for the duration of a sortie. Multiple modifiers will be used for each aircrew change. Overall line times begin when handover from LRE is complete, and end when handover back to LRE is complete. **(T-2)**

3.7.14.2. **(Added)** During debriefing, the aircrew will provide information on discrepancies annotated in the AFTO 781 forms by aircrew during the sortie. **(T-2)**

3.7.14.3. (**Added)** Prior to aircrew departing maintenance debrief, the designated aircraft and communications maintenance representatives, in conjunction with Production Superintendent, will validate discrepancy(s) annotated by aircrew. **(T-2)**

3.7.14.4. **(Added)** System capability codes will be applied to the LRE/MCE and aircraft as required, IAW Table 3.2. For equipment resets where no maintenance action was required, cap code 9 will be used. **(T-2)**

3.7.14.5. **(Added)** When debriefing the LRE/MCE in IMDS, input the aircraft tail number in the "Equipment ID for System ID" field on screen 355. If more than one LRE/MCE controlled an aircraft, (launch, mission, etc.) input the aircraft tail number in the "Equipment ID for System ID" field on screen 355 for each GCS. **(T-2)**

3.7.15. (**Added)** RPS RSO Debrief Responsibilities:

3.7.15.1. (**Added)** Main operating bases will establish procedures to communicate RSO information to each deployed/forward operating locations. **(T-2)**

3.7.15.2. **(Added)** Launch LRE Debrief will:

3.7.15.2.1. **(Added)** Use a debrief checklist to debrief the Launch LRE aircrew. **(T-2)** Debrief checklist will include the following: pilot names, date, time, flight time, flight effectiveness, GCS tail number with landing status code, and aircraft tail number with landing status. **(T-2) Note:** GCS landing status in this paragraph refers to the status of the launch GCS after handover to MCE.

3.7.15.2.2. **(Added)** Annotate aircraft and/or LRE AFTO 781 Series Forms and MIS at the conclusion of each sortie (if aircraft forms are available). **(T-2) Note:** Aircraft/LRE MIS can be annotated during flight.

3.7.15.2.3. **(Added)** Reconcile aircraft/LRE AFTO 781 Series Forms and MIS at end of sortie. **(T-2)**

3.7.15.2.4. **(Added)** Ensure aircraft information is forwarded to the MCE IAW established procedures. **(T-2)**

3.7.15.3. **(Added)** MCE Debrief will:

3.7.15.3.1. **(Added)** Use a debrief checklist to debrief the MCE aircrew. **(T-2)** Debrief checklist will include the following: pilot names, date, flight time, flight effectiveness, MCE tail number. **(T-2)**

3.7.15.3.2. (**Added)** Annotate aircraft and/or MCE AFTO 781 Series Forms and MIS at the conclusion of each sortie modifier (if aircraft forms are available). **(T-2) Note:** Aircraft/MCE MIS can be annotated during flight.

3.7.15.3.3. (**Added)** Reconcile aircraft/MCE AFTO 781 Series Forms and MIS at end of sortie. **(T-2)**

3.7.15.3.4. (**Added)** Will review MCE AFTO 781 series forms after final aircraft handover or mission complete. **(T-2)**

3.7.15.3.5. (**Added)** Will ensure aircraft information is forwarded to the recovery LRE IAW established procedures. **(T-2)**

3.7.15.4. (**Added)** Recovery LRE Debrief will:

3.7.15.4.1. (**Added)** Use a debrief checklist to debrief the Recovery LRE aircrew. **(T-2)** Debrief checklist will include the following: pilot names, date, flight time, flight effectiveness, LRE/MCE tail number with landing status code, and aircraft tail number with landing status. **(T-2)**

3.7.15.4.2. (**Added)** The Flightline Production Superintendent at the recovery LRE will review sortie modifiers and determine the overall landing status of the aircraft. **Note:** If the launch LRE and recovery LRE are at separate locations, the Flightline Production Superintendent from the aircraft's possessing organization may make the final determination of landing status. **(T-2)**

3.7.15.4.3. (**Added)** Will annotate aircraft/LRE AFTO 781 Series Forms and MIS at the conclusion of the post mission debrief. **(T-2)**

3.7.15.4.3.1. (**Added)** When debriefing the Recovery LRE in the MIS, input the aircraft tail number in the "Equipment ID for System ID" field on MIS screen 355. **(T-2)**.

3.8. Aircraft Section. Responsible for repairs, functional checks, drains, purges, and inspections of aircraft fuel systems, fuel tanks, and related components.

3.8.3. (**Added)** The Aircraft Section Chief will:

3.8.3.1. (**Added)** Establish controls to prevent unauthorized entry into fuel cell and repair areas. **(T-2)**

3.8.3.2. (**Added)** Provide required qualification training (to include safety training) to all personnel who enter aircraft fuel tanks or open fuel tank areas to perform maintenance or provide assistance. **(T-2)**

3.8.3.3. (**Added)** Perform safety inspections on facilities to ensure open tank repair areas, and equipment used for open fuel tank maintenance meet MDS-specific TOs and TO 1-1-3, *Inspection and Repair of Aircraft Integral Tanks and Fuel Cells* requirements. **(T-2)**

3.8.3.4. (**Added)** Establish notification procedures to inform the base fire department when open fuel tank maintenance is in progress and when maintenance is complete. **(T-2)**

3.8.3.5. (**Added)** Establish a Confined Space Entry Program IAW TO 1-1-3 and DAFMAN 91-203, Chapter 23**.**

3.8.3.6. (**Added)** Provide temporary storage for external fuel tanks. **(T-2)**

3.8.3.6.1. (**Added)** Maintain serial number inventory accountability for all removable external fuel tanks utilizing a Special Purpose Recoverable Authorized Maintenance (SPRAM) R25 detail record, IAW DAFI 21-103. **(T-2)**

Chapter 4

MAINTENANCE SQUADRON (MXS)

4.1. General. No additional guidance for RPA aircraft maintenance.

Chapter 5

MAINTENANCE OPERATIONS (MXO).

5.2.2. **Maintenance Operations Center (MOC).**

5.2.2.1.1.1.3. **(Added)** Visual aids will include status of assigned GCS and Communications Links. **(T-2)**

5.2.2.3.2. **(Added)** 1D7XX DAFSCs may be assigned to the MOC.

5.2.3. **Engine Management (EM) Section:**

5.2.3.2. **(Added)** For MXGs without a propulsion flight, Wing PS&D shall track and monitor engine data. **(T-2)**

Chapter 6

QUALITY ASSURANCE (QA)

6.10. Technical Order Distribution Office (TODO).

6.10.9.3. **(Added)** TODOs will manage Computer Program Identification Numbers (CPINs) and Software Media IAW T.O. 00-5-16, *Computer Program Identification Number (CPIN) Management*. **(T-2)** All MQ-9 CPINs and Software Media will be controlled in a Combined Tool Kit (CTK) and stored tracked as a CTK. **(T-2)** All inventory and Tool and Equipment Procedures apply to MQ-9 Software Media. **(T-2)**

6.10.9.4. **(Added)** TODOs will coordinate with Air Force Life Cycle Management Center (AFLCMC), Detachment 3 for software encryption, dissemination, or any other software issues that the unit experiences. **(T-2)**

Chapter 7

IMPOUNDMENT PROCEDURES

7.2. Specific Guidance. Impoundment of one element of an RPS does not dictate impoundment of the entire system.

7.3 Impoundment Authorities.

7.3.1.2.4. **(Added)** Consider any known failures and determine which RPS elements warrant impoundment (ex. Ground Data Terminal failure, material/mechanical failure on the aircraft, rack lock up, Environmental Control Unit failure, or intentional ditch of aircraft). **(T-2)** If there are no known factors causal to the incident, the impoundment authority may consider impounding the entire RPS.

7.5.4.1. (**Added)** Any un-commanded event suspected to be the result of a cyber-vulnerability or intrusion. This includes, but is not limited to: GCS and Aircraft.

7.5.4.1.1. (**Added)** MCE aircrew shall inform LRE aircrew of anomaly, debrief the aircraft as Code 3, and write up anomalous actions in the AFTO 781A Form IAW this instruction **(T-2)** Ensure the unit notifies the Persistent Attack Reconnaissance Operation Center (PAROC) of the event and request that they collect all operationally relevant information from that mission. **(T-2)**

7.5.4.1.2. (**Added)** Submit an Emergency Engineering Technical Assistance Request (ETAR) IAW 00-25-107 *Maintenance Assistance,* for the affected Aircraft/GCS. The Emergency 107 shall include the following information: **(T-2)**

7.5.4.1.2.1. (**Added)** Associated impounded equipment. **(T-2)**

7.5.4.1.2.2. (**Added)** Location of data log files for LRE and MCE GCSs on Inteldocs. **(T-2)**

7.5.4.1.2.3. (**Added)** Emergency 107 Checklist. **(T-2)**

7.5.4.1.2.4. (**Added)** Any relevant information at the FOUO level. **(T-2)**

7.5.4.1.2.5. (**Added)** NIPR and SIPR contact information of personnel at site. **(T-2)**

7.5.4.1.2.6. (**Added)** Message within 107 that an email on SIPRNet has been sent to the distribution box listed in paragraph 7.5.4.1.2. **(T-2)**

7.5.4.1.3. **(Added)** A SIPRNet email shall be sent to members of usaf.wright-patt.usaf-rsrcmgmt.list.mq-9-cyber-reporting@mail.smil.mil detailing all relevant information of the event including, but not limited to: **(T-2)**

7.5.4.1.3.1. **(Added)** Location of the MCE GCS, LRE GCS, and Aircraft at the time of the incident. **(T-2)**

7.5.4.1.3.2. **(Added)** Aircrew statements/characteristics of anomalies experienced (i.e. chain of events leading up to the event, observed event, any additional instances of anomalous action). **(T-2)**

7.5.4.1.3.3. (**Added)** Local and satellite frequencies, including any satellites utilized.

7.5.4.1.4. **(Added)** Follow normal procedures for Emergency 107. Contact the Det 3 Emergency 107 on-call telephone and give call back information, timelines, and any relevant unclassified information. **(T-2)**

7.5.4.2. (**Added)** If the event is explainable through the data log files as caused by a known software issue, Aircrew action, etc. the impounded equipment will be returned to previous mission capability via a Final 107 Disposition. If further investigation is needed, the affected units will be informed via an Interim Disposition. **(T-2)**

7.5.12. (**Added)** Simultaneous unintended and unrecoverable loss of all GCS links. **(T-2)**

7.5.13. (**Added)** Unplanned/Unexplained interruption of GCS power. **(T-2)**

Chapter 8

TOOL AND EQUIPMENT MANAGEMENT

8.1. Tool and Equipment Management. No additional guidance for RPA aircraft maintenance.

Chapter 9

MATERIEL MANAGEMENT SUPPORT

9.1. General. No additional guidance for RPA aircraft maintenance.

Chapter 10

MUNITIONS POLICY AND WEAPONS LOAD CREW PROGRAM

10.1. AF Munitions Policy. No additional guidance for RPA aircraft maintenance.

Chapter 11

ADDITIONAL MAINTENANCE REQUIREMENTS AND PROGRAMS

11.3. Special Certification Roster (SCR).

11.3.5.2. (**Added)** GCS Exceptional Release (ER) authority will be maintained and tracked as a unique special certification item. Use IMDS course code 002321. Mandatory SCR item title: "GCS Exceptional Release". (**T-2)**

11.8. Foreign Object Damage (FOD) Prevention Program.

11.8.3.11.3. **(Added)** GCS compounds/areas are not considered ramps and therefore do not require a daily FOD walk. **(T-2) Note:** This does not preclude appropriate FOD prevention practices within the GCS or during maintenance on exterior GCS components.

11.8.3.11.4. **(Added)** Appropriate FOD prevention program requirements will be addressed for GCSs in Wing's FOD plan. **(T-2)**

11.10. Aircraft Structural Integrity Program (ASIP).

11.10.1.1. (**Added)** MQ-9 does not have ASIP at time of publication of this document. Direct questions to MAJCOM WST. **(T-2)**

11.14. Hangar Queen Aircraft.

11.14.5.4.5. **(Added)** GCS is exempt from Hangar Queen reporting. Units will follow established MDS specific TO procedures to return a GCS to service following extended downtime. **(T-2)**

11.16. Aircraft Inlet/Intake/Exhaust Certification.

11.16.3. **(Added)** [**ACC Dev]** MQ-9 does not have a requirement for installed and uninstalled aircraft/engine intake/inlet/exhaust training and certification program.

11.47. (Added) GCS In-Mission Maintenance. GCS maintenance actions may be performed to repair aircrew reported discrepancies when the GCS is linked to a flying aircraft.

11.47.1. **(Added)** The Pilot in Command (PIC) of the GCS is the sole approving authority to allow in-mission maintenance on the GCS. **(T-2)**

11.47.2. **(Added)** The Production Superintendent will coordinate with the PIC to determine the level of maintenance to be performed. **(T-2)**

11.47.3. **(Added)** The PIC and Production Superintendent will evaluate all safety considerations prior to beginning any maintenance actions and take appropriate risk management steps. **(T-2)**

11.47.4. **(Added)** The PIC will notify the Operations Superintendent before in-flight maintenance is performed. **(T-2)**

11.47.5. **(Added)** The GCS AFTO 781 Series Forms and MIS documentation will be accomplished at the completion of the required maintenance. **(T-2)**

11.47.6. **(Added)** After completion of appropriate maintenance documentation the PIC will accomplish a new Exceptional Release (ER)/Conditional Release (CR). **(T-2)** The PIC of the GCS is the only person authorized to sign an ER/CR after performance of In-Mission maintenance. **(T-2)**

11.48. (Added) Climbing Certification Program.

11.48.1. **(Added)** Track climbing certification in IMDS IAW DAFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*. Use ACC Course Codes 029030 "Climbing Instructor" and 029027 "Climbing, Antenna". **(T-2)**

Chapter 12

MAINTAINING COMMERCIAL DERIVATIVE AIRCRAFT (CDA)

12.1. Background Information, Objective and Roles and Responsibilities. No additional guidance for RPA aircraft maintenance.

Chapter 13

CENTRALIZED REPAIR FACILITIES (CRF)

13.1. Introduction. No additional guidance for RPA aircraft maintenance.

Chapter 14

MAINTENANCE PLANS, SCHEDULING AND DOCUMENTATION (PS&D).

14.1. Responsibilities: No additional guidance for RPA aircraft maintenance.

Chapter 15

AIRCRAFT SUN SHADE SUSTAINMENT

15.1. Purpose: No additional guidance for RPA aircraft maintenance.

Chapter 16 (Added-ACC)

AEROSPACE VEHICLE COATING AND MARKING REQUIREMENTS

16.1. (Added-ACC) Purpose of Coating and Marking Guidance. No additional guidance for RPA aircraft maintenance.

JENNIFER HAMMERSTEDT, Brigadier General, USAF
Director of Logistics, Engineering, and Force Protection

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 21-101_ACCSUP, *Aircraft and Equipment Maintenance Management*, 23 Jun 2020

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

AFI 38-101, *Manpower and Organization*, 29 Aug 2019

AFMAN 11-2MQ-9V3, *MQ-9 – Operations Procedures*, 12 Jan 2023

DAFI 21-101, *Aircraft and Equipment Maintenance Management*, 16 Jan 2020

DAFI 21-101_ACCSUP, *Aircraft and Equipment Maintenance Management*, 23 Jun 2020

DAFI 21-103, *Equipment Inventory, Status and Utilization Reporting*, 1 Nov 2022

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

TO 00-5-16, *Computer Program Identification Number (CPIN) Management*, 1 Sep 2023

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

TO 00-33A-1001, *General Cyberspace Support Activities Management Procedures and Practice Requirements*, 11 May 2023

TO 1-1-3, *Inspection and Repair of Aircraft Integral Tanks and Fuel Cells*, 28 Mar 2022

Prescribed Forms

None

Adopted Forms

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ACMS—Aircraft Communication Maintenance Squadron

ACMU—Aircraft Communications Maintenance Unit

AFLCMC—Air Force Life Cycle Management Center

CDDAR—Crash Damaged or Disabled Aircraft Recovery

CPIN—Computer Program Identification Number

C-E—Communication Equipment

C2—Command and Control

EM—Engine Management

ER—Exceptional Release

ETAR—Engineering Technical Assistance Request

FOD—Foreign Object Damage

GCS—Ground Control Station

MCE—Mission Control Element

MOC—Maintenance Operations Center

OCR—Organizational Change Request

PIC—Pilot in Command

RPA—Remotely Piloted Aircraft

RPS—Remotely Piloted System

RSO—Remote Split Operations

SATCOM—Satellite Communications

SCR—Special Certification Roster

SLA—Service Level Agreement

SPRAM—Special Purpose Recoverable Authorized Maintenance

WST—Weapon System Team

Terms

Ground Control Station (GCS)—will be used when referring to Mission Control Element (MCE), Launch Recovery Element (LRE), or any separated ground element controlling a RPA as applicable.

Communication Link—Refers to any communication equipment used to establish a link between the RPA and GCS (e.g., Satellite Communications (SATCOM) terminal, Ground Data Terminal, tactical antenna, etc.).

Remotely Piloted System (RPS)—Refers to the RPA, GCS, and communication link utilized together for operational purposes.

Remote Split Operation (RSO)—RSO refers to a concept of operational employment whereby the launch/recovery GCS and crew are geographically separated from the mission GCS and crew.

Attachment 20 (Added)

SERVICE PROVIDER AGREEMENT TEMPLATE

A20.1. Responsibilities of the Service Provider to include.

A20.1.1. What resources will be provided to support the mission (i.e. Common Core Services such as NIPR/SIPR, email, etc.)

A20.1.2. How they will inform the customer of infrastructure changes and new or changed service.

A20.1.3. State what security methods will be used to protect infrastructure resources from unauthorized access, monitoring, or tampering.

A20.1.4. Describe the process used to notify and coordinate with end-user organization about planned/unplanned outages of connectivity, equipment, or electricity.

A20.1.5. Explain the coordination process for service degradation or failure correction and state how customer will be kept informed of status.

A20.1.6. Describe materials that will be provided to customer to minimize procedural errors.

A20.1.7. Explain customer support performance criteria and workload limitations (e.g., hours of operation, response times, and expected maximum calls.

A20.1.8. Describe what performance data and analysis reports will be provided to the customer organization to show service quality and level of customer support provided.

A20.1.9. State what customer training is available and what role the service providers will play in customer training.

A20.1.10. State what periodic surveys will be performed to monitor customer satisfaction.

A20.2. Responsibilities of End-User Organization to include.

A20.2.1. Describe the process used to ensure end-users know procedures for getting help.

A20.2.2. How coordination will be accomplished with service provider on any planned and in-progress major configuration changes (e.g., network installation/expansion, TCP/IP port requirements, changes in topology, system upgrades, relocation, etc.).

A20.2.3. How CSAs and FSAs will provide, upon request, equipment layout, network schematic, network connectivity (attached via backbone or standalone), and their location.

A20.2.4. Describe how the customer will use the performance and trend analysis data from service provider and provide feedback to improve service.

A20.2.5. Describe what end-user contingency operations plans and capabilities will be accomplished and what (if any) requirements are needed from Service Provider.

A20.2.6. Identify what resources will be a shared responsibility or transferred to the service provider.

A20.2.7. For equipment managed by the service provider, describe any limitations on how the service provider will gain access to equipment both electronically and physically as needed.

A20.2.8. Describe the agreement to perform the certification effort and comply with Wing, INOSC, AF, and DOD (DISA) security policy. Include a listing of all equipment describing roles and responsibilities for security requirements.

A20.2.9. Coordinate with the service provider at least annually to discuss changes in service levels and this SLA.

A20.2.10. Discuss the support and resourcing of Information Technology (IT) necessary to meet agreed SLA, MOAs/MOUs. If IT cannot be resourced adequately, adjust levels downward sufficiently to ensure they can be met by the expected resource levels.

A20.2.11. Discuss an annual review requirement of the IT restoration priorities. Update missions, functions, and systems requiring IT support to ensure all IT has the restoration priority necessary to meet mission needs.

A20.2.12. Define Outage Reporting/Trouble Call Procedures.

A20.2.13. Define the requirement and contact information to the applicable end-user POC to see if requirement or problem can be satisfied internally.

A20.2.14. Describe what minimum information will be provided (e.g. name, organization, location, telephone number, equipment number, user-id, E-mail address)?

A20.2.15. Provide service provider with a description of problem, its priority, and potential mission impact.

A20.2.16. Requirement to work with the service provider during fault isolation process, as needed.

A20.2.17. How negotiation will be accomplished for increased workload/expansion for contingencies or new support.

A20.2.18. Customer Escalation Procedures.

A20.2.18.1. Escalation Level 1 (Low/Routine Requests).

A20.2.18.2. Escalation Level 2 (Medium/Priority and Unresolved Low Requests).

A20.2.18.3. Escalation Level 3 (High/Critical and Unresolved Medium Requests).