

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**



**DEPARTMENT OF THE AIR FORCE  
INSTRUCTION 21-  
101\_AFRCSUP\_940ARWSUP**

**13 DECEMBER 2022**

**Maintenance**

**AIRCRAFT AND EQUIPMENT  
MAINTENANCE MANAGEMENT**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements Air Force Policy Directive (AFPD) 21-1, *Maintenance of Military Materiel*; AFI 11-2KC-135V3, *KC-135 Operations Procedures*, and is consistent with AFPD 13-5, *Air Force Nuclear Enterprise*. It extends guidance of Air Force Instruction (AFI) 21-101, *Aircraft and Equipment Maintenance Management*, 21 May 2015 (including AFI21-101\_AFGM2019-01, 21 May 2019 and any such AFGMs entered hereafter), and the Air Force Reserve Command (AFRC) *Supplement*, 24 August 2015 (Certified Current 29 March 2019). It provides guidance and procedures on all weapon system and support equipment maintenance management guidance. This supplement applies to all 940 Air Refueling Wing (ARW) personnel. This supplement does not apply to the ANG. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 90-160, *Publications and Forms Management*, 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. The use of the name or mark of any specific manufacturer,

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Changes/Additions made to reflect the manner in which the 940ARW will ensure compliance with directives found in DAFI 21-101\_AFRCSUP.

## Chapter 2

### ROLES AND RESPONSIBILITIES

2.4.69. **(Added)** Establish a Dedicated Crew Chief (DCC)/Assistant Dedicated Crew Chief (ADCC) program IAW **Chapter 3**.

2.4.69.1. **(Added)** As a minimum, establish a unit certificate to be given to DCCs/ADCCs. Afford the appropriate public recognition to DCCs and ADCCs when they are appointed.

### Chapter 3

#### AIRCRAFT MAINTENANCE SQUADRON (AMXS)

3.8.1.3.1. In addition to minimum T.O. requirements, Engine Operator will:

3.8.1.3.1.1. Brief the Person in Copilot Seat to monitor hydraulic quantity gauges to ensure they remain within acceptable limits.

3.8.1.3.1.2. Brief Person in Copilot Seat to monitor the applicable hydraulic low-pressure lights and verbalize when they extinguish and/or start flashing.

3.8.1.3.1.3. Brief Person in Copilot Seat on the minimum fuel requirements for the applicable fuel tanks and to notify the Engine Operator if they fall below the minimum acceptable level.

3.8.1.3.2. Person in Copilot Seat will:

3.8.1.3.2.1. Be qualified to operate aircraft radios.

3.8.1.3.2.2. Be qualified to operate aircraft interphone.

3.8.2. **(Added)** IAW **paragraph 2.4.69**, the MXG/CC will establish a DCC/ADCC program.

3.8.2.3.1. **(Added)** Every effort should be made to work deferred discrepancies as soon as possible or when parts become available. Schedule/work deferred discrepancies during aircraft down times (e.g. not on flying schedule, major inspection/maintenance).

3.9.5.3. **(Added)** AMXS Personnel assigned to the Electrical/Environmental Section will be responsible for the handling/transportation of all squib devices to and from the aircraft.

3.9.5.3.1. **(Added)** All training pertaining to the handling/transportation of squib devices will be tracked through any standard maintenance training program (GO-81, TBA, etc).

**3.11. (Added) END CHAPTER**

## Chapter 8

### TOOL AND EQUIPMENT MANAGEMENT

8.2.5.4. **(Added)** All on-site transfers will be approved by the Production Superintendent/Flightline Expediter and will be authorized only for ongoing/immediate maintenance requirements.

8.2.5.5. **(Added)** - To maintain absolute equipment accountability and control, on-site transfer will not be approved for reasons of convenience such as shift turnover.

## Chapter 9

### MATERIEL MANAGEMENT SUPPORT

9.12.2. **(Added)** Equipment item shortfalls, repairs, and/or replacements shall be the responsibility of the assigned Equipment Custodian for applicable equipment items.

9.12.3. **(Added)** Support Section NCOICs/Chiefs will communicate equipment requirements to the appropriate Equipment Custodians when equipment repair/replacement is required.

## Chapter 11

### ADDITIONAL MAINTENANCE REQUIREMENTS AND PROGRAMS

11.44.1.2. **(Added)** Ensure TDY orders authorize MEP to travel in Mission Essential Personnel status. Note: Aeronautical orders do not apply to this program, as MEP are not aircrew members.

11.44.2. **(Added)** En-Route Supervisors:

11.44.2.1. **(Added)** Will not assign MEP to work other en-route aircraft.

11.44.2.2. **(Added)** Will brief MEP on local safety precautions, maintenance practices, and limitations.

11.44.2.3. **(Added)** Coordinate with MEP and the aircraft commander on a work/rest plan and transportation to quarters.

11.44.3. **(Added)** Aircraft Commanders will:

11.44.3.1. **(Added)** Establish with MEP and en-route/transient supervisor a work/rest plan based on maintenance and mission requirements. The AC will be the primary decision to determine when MEP begins a rest cycle for the next mission.

11.44.3.2. **(Added)** Upon arrival at en-route/transient locations, determine MEP ability to safely and effectively perform his/her duties. In making this determination, consider the duration of the flight, the ability of MEP to rest during the flight, and the quality of the rest MEP experienced during the flight. The MEP primary job is preparing the aircraft (e.g., inspect, service, aircraft forms maintenance) for the next mission. MEP do not automatically enter crew rest with the aircrew upon arrival at an en-route/ transient location unless the duty day was exceeded.

11.44.3.3. **(Added)** If MEP safety is jeopardized by fatigue, the MEP duty day must end.

11.44.3.4. **(Added)** Ensure crew integrity for quarters is maintained and inform MEP of billeting location. Any official business required by MEP interrupts the MEP rest period. This includes official business conducted on the telephone. Any interruptions must be made only under the most exceptional circumstances.

11.44.4. **(Added)** MEP Qualifications.

11.44.4.1. **(Added)** Minimum 7-level/SSgt or above. When more than one MEP is required, subsequent MEP may be a 5-level A1C or above. 5-level MEP should be qualified on all tasks required of 7-level MEP with the exception of tow supervisor and engine run.

11.44.4.2. **(Added)** As a minimum, MEP should be qualified and certified on the following MDS specific tasks.

11.44.4.2.1. **(Added)** Refuel/defuel member and supervisor; concurrent servicing supervisor (as applicable).

11.44.4.2.2. **(Added)** Tow member, tow supervisor, and tow brake operator.

11.44.4.2.3. **(Added)** LOX/GOX servicing, nitrogen and tire servicing.

11.44.4.2.4. **(Added)** Tire and brake change; launch; recovery; marshalling; pre-flight, thru-flight and post-flight inspection.

11.44.4.2.5. **(Added)** APU operation/quick air start system.

11.44.4.2.6. **(Added)** Engine run.

11.44.4.2.7. **(Added)** Kneeling operation and cargo door/ramp/visor operation on applicable MDS.

11.44.4.2.8. **(Added)** All applicable powered/non-powered AGE.

11.44.4.2.9. **(Added)** Qualified to operate, troubleshoot, service, and perform maintenance on their aircraft's critical systems.

11.44.5. **(Added)** MEPs may be authorized life support equipment, integrated survival vest/body armor, or Aircrew Eye Respiratory Protection (AERO) equipment as prescribed in AFI 11-301, V1, Aircrew Flight Equipment (AFE) Program, based on mission requirements. Any mobility equipment (e.g., flak vests, Kevlar® helmets) may be obtained from the unit mobility section.

11.44.6. **(Added)** Units may authorize MEP M9 qualification to minimize weapons storage onboard aircraft when accompanying aircraft into theater of operations unless mission tasking requires M-4s

11.44.7. **(Added)** Work/Rest Cycles (Also see [Chapter 1](#)).

11.44.7.1. **(Added)** MEP typically fly with the aircraft for the purpose of accomplishing ground maintenance at the TDY location. His/her duty period typically starts when the MEP shows at the aircraft prior to departure. The Aircraft Commander makes the final determination of MEP duty days based on criteria established in [paragraph 11.36.3.2](#) (AFRC Added).

11.44.7.2. **(Added)** MEP must be afforded adequate rest during each 24 hour period. Rest is defined as the condition, which allows an individual the opportunity for a minimum of 8 hours of uninterrupted sleep in every 24 hours. Any interruption must be made under the most exceptional circumstances.

11.44.7.3. **(Added)** Maximum shifts under normal conditions are 12 hours, but may be extended for mission requirements. The Aircraft Commander is the decision authority for extended shifts. Extensions should only be approved during or for exceptional situations or circumstances. MEP will not be required to work longer than 16 hours in any 24 hour period and must be given 8 hours of uninterrupted rest following extended work shifts.

ERIK AUFDERHEIDE, Col, USAF  
Commander

## Attachment 1

### GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

#### *References*

DAFI 21-101 AFRC SUPPLEMENT, *Aircraft and Equipment Maintenance Management*, April 18, 2022

#### *Prescribed Forms*

AF Form 673, *Air Force Publication/Form Action Request*

#### *Abbreviations and Acronyms*

**DAFI**—Department of the Air Force Instruction

**AFMAN**—Air Force Manual

**AFPD**—Air Force Policy Directive

**DOD**—Department of Defense

**OPR**—Office of Primary Responsibility

#### *Office Symbols*

**AF/RE**—Air Force Reserve

**SAF/AA**—The Administrative Assistant to the Secretary of the Air Force

#### *Terms*

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