

12 February 1993

JET ENGINE

(C-141)

1. **Objective.** As prescribed in AFR 8-10, this Air National Guard Manpower Standard (ANGMS) quantifies the full-time manpower requirement to accomplish the tasks described in the work center description for varying levels of workload volume.
2. **Authority.** Air National Guard (ANG) Regulation 66-14 contains ANG policy and procedural guidance for the Jet Engine work center. This ANGMS has been developed in accordance with procedures contained in AFR 25-5, 16 May 88.
3. **Applicability.** This standard applies to ANG C-141 Air Mobility Command gained flying units. This standard applies only to peacetime operations.
4. **Standard Data:**
 - a. **Classification.** Type III.
 - b. **Approval Date.** 4 Jan 88.
 - c. **Man-Hour Data Source.** Operational Audit (historical record and technical estimate techniques).
 - d. **Standard Man-Hour Equation.** $Y = 25.20 + 78.32X_1 + 4.937X_2$.
 - e. **Workload Factor:**
 - (1) **Title:**
 - (a) X_1 . A C-141 Aircraft Authorized.
 - (b) X_2 . A Programmed Flying Hour.
 - (2) **Definition:**
 - (a) X_1 . The average monthly C-141 aircraft authorized.
 - (b) X_2 . The average monthly programmed flying hours.
 - (3) **Source of Count:**
 - (a) X_1 . USAF Program Document (PD), Volume II, maintained by NGB/FM.
 - (b) X_2 . USAF Program Document (PD), Volume II, maintained by NGB/FM.
5. **Application Instructions:**
 - a. The valid man-hour range for this ANGMS is 1889.83 through 3149.71. Should the extrapolation limits be exceeded, see AFR 26-1, Volume III, paragraph 1-20 for guidance.
 - b. The AF Form 1113, Standard Manpower Table, is an aggregate of total manpower by specialty title and Air Force Specialty Code (AFSC).
 - c. Application instructions are as follows:
 - (1) Determine the values for the two workload factors (WLFs) identified in paragraph 4e.
 - (2) Substitute the appropriate WLF value into the man-hour equation for X_1 and X_2 .
 - (3) Divide the total man-hours by the current civilian man-hour availability factor to determine total requirements.
 - (4) Find the column in which the total number of required authorizations fall; read up the column and across to determine manpower by AFSC.
 - d. Fractional manpower requirements resulting from application of this standard will not be aggregated.
6. **Statement of Conditions.** This work center's normal hours of operation are 8 hours a day, 5 days a week. There are no other standard of living constraints which affect the daily operation of this work center.

PUBLISHED UNDER AUTHORITY OF THE SECRETARY OF THE AIR FORCE

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2 Attachments
1. Work Center Description
2. Standard Manpower Table

WORK CENTER DESCRIPTION

Jet Engine

(C-141)

DIRECT:

1. ON-EQUIPMENT MAINTENANCE:

1.1. MAINTAINS TURBOFAN POWER PLANT SYSTEM. Inspects, troubleshoots, and repairs on-equipment.

1.1.1. MAINTAINS AIR INLET AND FRONT ACCESSORY SECTION.

1.1.2. MAINTAINS MAIN ACCESSORY DRIVE SECTION.

1.1.3. MAINTAINS ENGINE INSTRUMENT.

1.1.4. MAINTAINS FUEL SYSTEM.

1.1.5. MAINTAINS OIL SYSTEM.

1.1.6. MAINTAINS IGNITION AND START SYSTEM.

1.1.7. MAINTAINS COMPRESSOR BLEED AND ANTI-ICE SYSTEM.

1.1.8. MAINTAINS ENGINE INSTRUMENT SYSTEM.

1.1.9. MAINTAINS ENGINE CONTROL SYSTEM.

1.1.10. MAINTAINS CONSTANT SPEED DRIVE SYSTEM.

1.1.11. MAINTAINS THRUST REVERSER SYSTEM.

1.2. MAINTAINS AUXILIARY POWER UNIT (APU). Inspects, troubleshoots, and repairs equipment.

1.2.1. MAINTAINS FUEL SYSTEM.

1.2.2. MAINTAINS OIL SYSTEM.

1.2.3. MAINTAINS MECHANICAL SYSTEM.

1.2.4. MAINTAINS ELECTRICAL SYSTEM.

1.2.5. MAINTAINS PNEUMATIC COMPONENTS.

1.2.6. MAINTAINS HYDRAULIC SYSTEM.

1.2.7. MAINTAINS INSTRUMENT APU EXHAUST GAS TEMPERATURE.

1.3. MAINTAINS GENERATOR. Inspects, troubleshoots, and repairs equipment.

1.4. MAINTAINS HYDRAULIC PUMP. Inspects, troubleshoots, and repairs equipment.

1.5. PERFORMS INSPECTION. Performs special and scheduled aircraft inspection.

1.5.1. PERFORMS SPECIAL INSPECTION.

1.5.2. PERFORMS ISOCHRONAL INSPECTION.

2. OFF-EQUIPMENT MAINTENANCE:

2.1. MAINTAINS TURBOFAN POWER PLANT SYSTEM: Inspects, troubleshoots, and repairs off-equipment.

- 2.1.1. MAINTAINS AIR INLET AND FRONT ACCESSORY SECTION.**
- 2.1.2. MAINTAINS COMPRESSOR SECTION.**
- 2.1.3. MAINTAINS DIFFUSER AND COMBUSTION SECTION.**
- 2.1.4. MAINTAINS TURBINE SECTION.**
- 2.1.5. MAINTAINS MAIN BEARING AND SEAL ASSEMBLY.**
- 2.2. MAINTAINS APU.** Inspects, troubleshoots, and repairs equipment.
 - 2.2.1. MAINTAINS APU SYSTEM.**
 - 2.2.2. PERFORMS APU RUN-UP.**
- 3. AEROSPACE GROUND EQUIPMENT.** Maintains aerospace ground equipment assigned to the work center.
- 4. SHOP SUPPORT GENERAL CODE:**
 - 4.1. PERFORMS BUILDUP AND TEARDOWN OF ENGINE.**
 - 4.2. PERFORMS TEST CELL RUN-UP.**
 - 4.3. PERFORMS TEST CELL MAINTENANCE.**
- 5. UNIT TRAINING ASSEMBLY (UTA) AND MOBILITY REQUIREMENT.** Performs planning/scheduling task associated with preparation for UTA weekend and mobility requirement.
- 6. COMPREHENSIVE ENGINE MANAGEMENT SYSTEM (CEMS).** Accomplishes Comprehensive Engine Management System.

INDIRECT: Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are Supervision, Administration, Meeting, Training, Supply, Equipment Maintenance, and Cleanup. See AFMS 00AA for the standard indirect description.

STANDARD MANPOWER TABLE											
WORK CENTER/FAC			APPLICABILITY MAN-HOUR RANGE								
Jet Engine/23230A			1889.83 - 3149.71								
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT								
Systems Maintenance	454XX	CIV	1	1	1	1	2	2	2	2	2
Aerospace Propulsion, Jet Engine	454X0A	CIV	12	13	14	15	15	16	17	18	19
TOTAL			13	14	15	16	17	18	19	20	21
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT								
TOTAL											