

COMMUNICATIONS/NAVIGATION SYSTEMS

(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 Communications/Navigation Systems work center. This ANGMS has been developed in accordance with procedures contained in AFR 25-5, 16 May 88. This ANGMS was developed using functional review processes.
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.**
 - c. **Man-Hour Data Source.** Operational Audit (historical record and technical estimate techniques).
 - d. **Standard Man-Hour Equation.** $Y = 18.72 + 1.465X_1 + 13.65X_2$.
 - e. **Workload Factor:**
 - (1) **Title:**
 - (a) X_1 . A Programmed Flying Hour.
 - (b) X_2 . A C-141 Aircraft Authorized.
 - (2) **Definition:**
 - (a) X_1 . The average monthly programmed flying hours.
 - (b) X_2 . The average monthly C-141 aircraft authorized.
 - (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 471.31 through 785.51. 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). The applicable 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 number of required authorizations fall; read up to determine manpower by AFSC.
 - c. 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

JOHN B. CONAWAY
Lieutenant General, USAF
Chief, National Guard Bureau

OFFICIAL

E. DARDEN BAINES
Director
Administrative Services

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

No. of Printed Pages: 5
OPR: ANGR/XPME (Maj Castleberry)
Approved by: Lt Gen Conaway
Edited by: Ms. N. Salch
Distribution: F, X

WORK CENTER DESCRIPTION
Communications/Navigation Systems
(C-141)

DIRECT:

1. ON-EQUIPMENT MAINTENANCE:

1.1. MAINTAINS AIRCRAFT SYSTEM AND COMPONENT. Inspects, troubleshoots, and repairs on-equipment.

1.1.1. MAINTAINS RADOME.

1.1.2. MAINTAINS INSTRUMENT.

1.1.3. MAINTAINS COCKPIT VOICE RECORDER SYSTEM.

1.1.4. MAINTAINS HF 102 HIGH FREQUENCY (HF) COMMUNICATION SYSTEM.

1.1.5. MAINTAINS 807A SYSTEM (WILCOX).

1.1.6. MAINTAINS AN/ARC-186 VERY HIGH FREQUENCY (VHF) COMMUNICATION SYSTEM.

1.1.7. MAINTAINS AN/ARC-164(V) ULTRA HIGH FREQUENCY (UHF) COMMUNICATION SYSTEM.

1.1.8. MAINTAINS INTERCOMMUNICATION SYSTEM.

1.1.9. MAINTAINS PUBLIC ADDRESS SYSTEM.

1.1.10. MAINTAINS INTERPHONE/MISCELLANEOUS COMPONENT.

1.1.11. MAINTAINS AN/APX-64 IDENTIFICATION, FRIEND OR FOE (IFF) SYSTEM.

1.1.12. MAINTAINS EMERGENCY LOCATOR TRANSMITTER (ELT) SYSTEM.

1.1.13. MAINTAINS AUTOMATIC DIRECTION FINDER SYSTEM.

1.1.14. MAINTAINS MARKER BEACON EQUIPMENT.

1.1.15. MAINTAINS VHF NAVIGATION SYSTEM.

1.1.16. MAINTAINS GLIDE SLOPE SYSTEM.

1.1.17. MAINTAINS AUXILIARY SYSTEM.

1.1.18. MAINTAINS RADIO NAVIGATION INSTRUMENT.

1.1.19. MAINTAINS AN/ARN-147 VOR/ILS MARKER BEACON.

1.1.20. MAINTAINS AN/ARN-118 TACAN SYSTEM.

1.1.21. MAINTAINS RADAR ALTIMETER SYSTEM.

1.1.22. MAINTAINS APS-133 SYSTEM.

1.1.23. MAINTAINS RADAR INTERFACE UNIT.

1.1.24. MAINTAINS INERTIAL NAVIGATIONS SYSTEM.

1.1.25. MAINTAINS RT-116C/ARC-164 UHF COMMUNICATION SYSTEM (HAVE QUICK).

1.1.26. MAINTAINS EMERGENCY RADIO COMPONENT.

1.2. PERFORMS INSPECTION. Performs special, phase, and hourly aircraft inspection.

1.2.1. PERFORMS SPECIAL INSPECTION.

1.2.2. PERFORMS ISOCHRONAL INSPECTION.

1.2.3. PERFORMS HOME STATION CHECK.

2. OFF-EQUIPMENT MAINTENANCE:

2.1. MAINTAINS AIRCRAFT SYSTEM AND COMPONENT. Inspects, troubleshoots, and repairs off-equipment.

2.1.1. MAINTAINS INSTRUMENT.

2.1.2. MAINTAINS COCKPIT VOICE RECORDER SYSTEM.

2.1.3. MAINTAINS HF 102 HF COMMUNICATION SYSTEM.

2.1.4. MAINTAINS 807A SYSTEM (WILCOX).

2.1.5. MAINTAINS AN/ARC-186 VHF COMMUNICATION SYSTEM.

2.1.6. MAINTAINS AN/ARC-164(V) UHF COMMUNICATION SYSTEM.

2.1.7. MAINTAINS RT-1168C/ARC-164 UHF COMMUNICATION SYSTEM (HAVE QUICK).

2.1.8. MAINTAINS INTERCOMMUNICATION SYSTEM.

2.1.9. MAINTAINS PUBLIC ADDRESS SYSTEM.

2.1.10. MAINTAINS INTERPHONE/MISCELLANEOUS COMPONENT.

2.1.11. MAINTAINS AN/APX-64 IFF SYSTEM.

2.1.12. MAINTAINS EMERGENCY RADIO COMPONENT.

2.1.13. MAINTAINS ELT SYSTEM.

2.1.14. MAINTAINS AUTOMATIC DIRECTION FINDER SYSTEM.

2.1.15. MAINTAINS MARKER BEACON EQUIPMENT.

2.1.16. MAINTAINS VHF NAVIGATION SYSTEM.

2.1.17. MAINTAINS GLIDE SLOPE SYSTEM.

2.1.18. MAINTAINS AUXILIARY SYSTEM.

2.1.19. MAINTAINS RADIO NAVIGATION INSTRUMENT.

2.1.20. MAINTAINS AN/ARN-147 VOR/ILS MARKER BEACON.

2.1.21. MAINTAINS AN/ARN-118 TACAN SYSTEM.

2.1.22. MAINTAINS RADAR ALTIMETER SYSTEM.

2.1.23. MAINTAINS APS-133 SYSTEM.

2.1.24. MAINTAINS RADAR INTERFACE UNIT.

2.1.25. MAINTAINS INERTIAL NAVIGATIONS SYSTEM.

3. **TIME COMPLIANCE TECHNICAL ORDER (TCTO).** Performs maintenance required on/off the aircraft in accordance with applicable TCTO and completes documentation.
4. **PERIODIC MAINTENANCE OF AVIONICS EQUIPMENT IN BASE SUPPLY.** Performs periodic functional check or calibration of equipment stored in Base Supply to maintain shelf life and to ensure serviceability before use.
5. **BENCH SET AND MOCK-UP.** Inspects, aligns, and repairs bench set mock-up and subsystem component.
6. **SHOP SUPPORT GENERAL CODE.**
7. **DIRECT LABOR MAINTENANCE.** Assists in the performance of direct labor maintenance requirement to ensure effective utilization of maintenance personnel.
8. **UNIT TRAINING ASSEMBLY (UTA) AND MOBILITY REQUIREMENT.** Performs planning/scheduling task associated with preparation for UTA weekend and mobility requirement.

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								
Communications/Navigation Systems/24110A			471.31 - 785.51								
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT								
Avionics Guidance and Comm Sys (MAC)	455X1A	CIV	3	4	5						
TOTAL			3	4	5						
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT								
TOTAL											