

**POWER PRODUCTION
Combat Communications Squadron**

1. Objective. As prescribed in AFI 38-201, *Determining Manpower Requirements*, 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 within the Power Production work center.

2. Authority. The policy and guidance for the operation of the Power Production work center is derived from numerous regulations, the majority of which are contained in, but not limited to, the 56-series, AFI 21-series (formerly 66-series), 102-series, and AFI 31-, 90-, 10-, 31-, and 71-series (formerly 205-series) of Air Force and/or Air National Guard directives. This ANGMS has been developed in accordance with procedures contained in AFPAM 38-208V1, *Air Force Management Engineering Program (MEP) Processes*, formerly AFR 25-5.

3. Applicability:

a. This standard applies to all ANG Combat Communications Squadrons authorized a Power Production work center, FAC 2600C5, except as noted below:

- (1) 114 CCSQ, Jacksonville FL
- (2) 118 CCSQ, Badin NC
- (3) 176 CCSQ, Anchorage AK
- (4) 205 CCSQ, Lexington KY
- (5) 285 CCFT, St. Croix VI

b. This standard applies to peacetime operations only.

4. Standard Data:

a. Classification. Type II.

b. Approval Date. 16 June 1994.

c. Man-hour Data Source. Operational Audit (historical record and technical estimate techniques).

d. Standard Man-hour Equation. $Y = 59.18X^{.4372}$

e. Workload Factor:

(1) Title. An Equipment Unit Type Code (UTC) Supported.

(2) Definition. The total number of Equipment UTCs maintained by the Communications-Electronics work center.

(3) Source. Unit's Designed Operational Capability (DOC) Statement maintained by ANGRC/SCOM.

(a) For all units except the 263, 282, and the 283 CCSQ: Count all equipment UTCs in Section II, paragraph C. In Section IV, paragraph A, count all equipment UTCs except those "awaiting receipt" and "awaiting disposition." In Section IV, paragraph B, count only the equipment UTCs not previously counted in Section II, paragraph C and Section IV, paragraph A. Refer to UTC Listing at attachment 3 for acceptable list of Combat Communications equipment UTCs.

(b) For the 263, 282, 283 CCSQ and any unit which has a UTC tasking "WARTIME/TCCE-CA": Count all equipment UTCs in Section II, paragraph C. In Section V, paragraph B, count only the equipment UTCs not previously counted in Section II, paragraph C. Refer to UTC Listing at attachment 3 for acceptable list of Combat Communications equipment UTCs.

5. Application Instructions:

a. The valid man-hour range for this ANGMS is 110.17 through 331.98. Extrapolation limits represent the upper and lower man-hour values that bind the applicability range. These limits represent the maximum amount the equation can be extended.

b. Manual Application:

(1) Determine the correct value for the Workload Factor identified in paragraph 4e above. Substitute the value for the appropriate value of X in the man-hour equation identified in paragraph 4d.

(2) Determine the Geographically Separated Unit (GSU) additive man-hours by applying the appropriate equation depicted in ANGMS GSUADD.CC. Add these man-hours to the standard man-hours computed in paragraph 5.b.(1) for each GSU. This represents the unit's total required man-hours.

(3) Divide the total required man-hours by the appropriate civilian Man-hour Availability Factor to determine the total manpower requirements.

c. Automated Application:**(1) Hardware/Software Requirements:**

- (a) IBM compatible computer with 80386 microprocessor.
- (b) Lotus 123 Release 3.
- (c) Lotus 123 File, COMBAT.WK3.

(2) First load the Lotus 123R3 file, "COMBAT.WK3." From the menu, select "Enter Workload Data." Next enter the number of equipment UTCs supported and the total number of traditional guardsmen authorized for each unit. The program will calculate the standard and GSU additive man-hours. The total required man-hours/manpower will be automatically allocated to each unit. On-screen instructions are provided to assist with saving and printing data.

d. Refer to the Standard Manpower Table, AF Form 1113, to determine specific Air Force specialties.

6. Statement of Conditions. The conditions listed below had no affect on the development of this standard, nor will they affect future applications. Analyses of these levels of service indicate no manpower impact:

- a. Minimum response rates.
- b. Minimum manpower levels.
- c. Standardized crew complements.
- d. Safety considerations.
- e. Aircraft turn-around time.
- f. Length of waiting periods.
- g. Levels of backlog.
- h. Hours of operation.

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3 Attachments
1. Work Center Description
2. Standard Manpower Table
3. UTC Listing

WORK CENTER DESCRIPTION

Power Production

DIRECT:

1. POWER PRODUCTION EQUIPMENT MAINTENANCE. Performs maintenance, inspection, repair, and training associated with power production equipment.

1.1. PERFORMS SMALL GENERATOR MAINTENANCE:

1.1.1. INSTALLS SMALL GENERATOR. Positions equipment, installs ground and electrical cable, and connects auxiliary fuel supply if required.

1.1.2. MAINTAINS SMALL GENERATOR. Travels to site, completes documentation, and returns to work center.

1.1.2.1. PERFORMS UNSCHEDULED MAINTENANCE. Troubleshoots and diagnoses malfunction; removes, replaces, and repairs component; conducts operational check and verifies corrective action taken; and corrects other discrepancy as required.

1.1.2.2. PERFORMS PERIODIC MAINTENANCE INSPECTION (PMI). Inspects equipment in accordance with (IAW) Periodic Inspection Work Card, performs required maintenance, and performs operational check.

1.1.2.3. PERFORMS OTHER SCHEDULED MAINTENANCE. Performs modification, Technical Inspection, Time Compliance Technical Order (TCTO), etc.

1.1.3. SERVICES SMALL GENERATOR. Performs servicing inspection and adds fluid/fuel to unit. Performs minor repair discovered during servicing.

1.2. PERFORMS LARGE DIESEL GENERATOR MAINTENANCE:

1.2.1. INSTALLS LARGE DIESEL GENERATOR. Positions equipment, installs ground and electrical cable, and connects auxiliary fuel supply if required.

1.2.2. MAINTAINS LARGE DIESEL GENERATOR. Travels to site, completes documentation, and returns to work center.

1.2.2.1. PERFORMS UNSCHEDULED MAINTENANCE. Troubleshoots and diagnoses malfunction; removes, replaces, and repairs component; conducts operational check and verifies corrective action taken; and corrects other discrepancy as required.

1.2.2.2. PERFORMS PMI. Inspects equipment IAW Periodic Inspection Work Card, performs required maintenance, and performs operational check.

1.2.2.3. PERFORMS OTHER SCHEDULED MAINTENANCE. Performs modification, Technical Inspection, TCTO, etc.

1.2.3. SERVICES LARGE DIESEL GENERATOR. Performs servicing inspection and adds fluid/fuel to unit. Performs minor repair discovered during servicing.

- 2. AIR CONDITIONING/REFRIGERATION EQUIPMENT MAINTENANCE.** Performs maintenance, inspection, repair, and training.
- 2.1. INSTALLS AIR CONDITIONING/REFRIGERATION EQUIPMENT.** Positions equipment, installs ground and electrical cable, and connects auxiliary fuel supply if required.
- 2.2. MAINTAINS AIR CONDITIONING/REFRIGERATION EQUIPMENT.** Travels to site, completes documentation, and returns to work center.
 - 2.2.1. PERFORMS UNSCHEDULED MAINTENANCE.** Troubleshoots and diagnoses malfunction; removes, replaces, and repairs component; conducts operational check and verifies corrective action taken; and corrects other discrepancy as required.
 - 2.2.2. PERFORMS PML.** Inspects equipment IAW Periodic Inspection Work Card, performs required maintenance, and performs operational check.
 - 2.2.3. PERFORMS OTHER SCHEDULED MAINTENANCE.** Performs modification, Technical Inspection, TCTO, etc.
- 2.3. SERVICES AIR CONDITIONING/REFRIGERATION EQUIPMENT.** Performs servicing inspection and adds fluid/fuel to unit. Performs minor repair discovered during servicing.
- 3. HAZARDOUS WASTE AND PETROLEUM RECYCLING PROGRAM.** Identifies, labels, contains, and disposes of hazardous waste; maintains hazardous waste accumulation point; and inspects and maintains protective equipment.
- 4. TECHNICAL DATA SUBACCOUNT MAINTENANCE.** Receives and posts data and change to file. Maintains file for serviceability.
- 5. CORROSION CONTROL PROGRAM:**
 - 5.1. PREPARES UNIT.** Prepares unit for repainting and paints unit.
 - 5.2. STENCILS UNIT.** Stencils and applies decal to unit after painting.
 - 5.3. PERFORMS OPERATIONAL CHECK.** Conducts operational check of equipment after painting.
- 6. MOBILITY:**
 - 6.1. PERFORMS PREDEPLOYMENT TASKING:**
 - 6.1.1. REVIEWS DOCUMENTATION.** Reviews Logistics Detail for accuracy and makes adjustment to Logistics Plan as necessary.
 - 6.1.2. PERFORMS INVENTORY.** Ensures that vehicle, van, pallet, or box has appropriate contents according to Logistics Plan.
 - 6.1.3. PREPARES FOR TRANSPORTATION:**
 - 6.1.3.1. PREPARES TRUCK FOR DEPLOYMENT.**
 - 6.1.3.2. PREPARES PALLET FOR DEPLOYMENT.**

6.2. PERFORMS POST DEPLOYMENT TASKING:

6.2.1. PERFORMS POST DEPLOYMENT INVENTORY. Ensures that equipment is accounted for, clean, and serviceable.

6.2.2. ORDERS REPLACEMENT ITEM, AS REQUIRED.

6.2.3. REPACKS AND STORES EQUIPMENT.

7. EQUIPMENT INVENTORY/MAINTENANCE:

7.1. PERFORMS CUSTODIAN AUTHORIZATION/CUSTODY RECEIPT LISTING INVENTORY:

7.1.1. INVENTORIES EQUIPMENT. Ensures that equipment is accounted for, clean, and serviceable.

7.1.2. ORDERS REPLACEMENT ITEM, AS REQUIRED.

7.2. INVENTORIES MOBILITY SUPPORT EQUIPMENT. Inventories, cleans, and ensures serviceability of tent, cot, etc. Orders replacement item, as required.

7.3. PERFORMS MOBILITY KIT MAINTENANCE. Paints, stencils, and cleans mobility kit.

7.4. PERFORMS QUARTERLY EQUIPMENT REVIEW.

8. TRADITIONAL GUARDSMAN PROFICIENCY TRAINING:

8.1. REVIEWS INDIVIDUAL TRAINING RECORD/JOB PROFICIENCY GUIDE AND DETERMINES TRAINING REQUIREMENT.

8.2. ANNOTATES TRAINING RECORD UPON COMPLETION OF TRAINING.

8.3. DEVELOPS/REVIEWS TRAINING PLAN.

INDIRECT:

I1. SUPERVISION:

I1.1. ADMINISTERS PERSONNEL:

I1.1.3. RATES PERFORMANCE:

I1.1.3.5. PROVIDES PERFORMANCE FEEDBACK:

I1.1.3.5.1. PREPARES FOR PERFORMANCE FEEDBACK SESSION. Gathers and reviews performance information, schedules feedback session, selects and develops agenda, and prepares performance feedback worksheet.

I1.1.3.5.3. ATTENDS PERFORMANCE FEEDBACK SESSION. Receives performance feedback and discusses performance expectations with supervisor.

I1.1.4. PREPARES SELECTIVE RETENTION PROGRAM CONSIDERATION. Reviews notification letter, researches data, drafts comment, and finalizes consideration.

I1.2. SUPERVISES PERSONNEL:

I1.2.1. SCHEDULES PERSONNEL. Reviews work requirement and priority, reviews personnel status, and prepares duty schedule.

I1.2.2. DEVELOPS STANDARD PUBLICATION OR OTHER DIRECTIVE:

I1.2.2.1. DEVELOPS POLICY LETTER, PROCEDURE, OR OPERATING INSTRUCTION. Researches applicable document, develops draft, coordinates draft, and proofreads and signs final copy.

I1.2.2.2. DEVELOPS PERFORMANCE STANDARD OR CHECKLIST. Researches applicable document, develops draft, coordinates draft, proofreads, and signs final copy.

I1.2.3. DIRECTS WORK CENTER ACTIVITY:

I1.2.3.1. OVERSEES WORK IN PROGRESS. Inspects and reviews subordinate's work.

I1.2.3.2. COORDINATES ON WORK CENTER OR PERSONNEL STATUS. Coordinates with supervisor or other unit or agency on work center or personnel status.

I1.2.3.3. INFORMS WORK CENTER PERSONNEL. Informs work center personnel on change affecting individual, and informs work center personnel on change affecting work center activity.

I1.2.3.3.1. INFORMS WORK CENTER PERSONNEL.

I1.2.3.3.2. INFORMS INDIVIDUAL.

I1.3. REVIEWS/PROCESSES INCOMING DISTRIBUTION. Reviews/processes incoming correspondence for information and necessary action, and marks for routing.

I1.4. REVIEWS/PROCESSES OUTGOING DISTRIBUTION. Reviews/processes outgoing correspondence for completeness and accuracy and signs.

I1.7. INSPECTS FACILITY. Periodically inspects work center facility for housekeeping, safety, fire hazard, or equipment conditions that require attention and completes necessary documentation.

I1.7.2. INSPECTS WAREHOUSE/MAINTENANCE FACILITY.

I1.8. RECEIVES AND ASSISTS VISITING OFFICIAL. Receives official visitor, assists visitor in accomplishing task, escorts visitor throughout work center, and returns to work area.

I1.9. REVIEWS REPORT AND STATISTICAL DATA. Reviews information contained in report and statistical data for impact on work center status, and to identify possible trends that require management attention.

I2. ADMINISTRATION:

I2.5. MAINTAINS LOG AND REGISTER. Obtains book or form, makes entry, and puts book or form away.

I2.13. ACKNOWLEDGES VISITOR. Greets visitor, answers query, and refers visitor to appropriate person or location.

I2.15. MAINTAINS MICROCOMPUTER SYSTEM. Installs software and hardware, modifies software, deletes outdated file, and backs-up file.

I3. MEETING:

I3.1. PREPARES FOR MEETING. Gathers information, organizes material, prepares chart or slide, and practices presentation.

I3.1.2. PREPARES FOR UNIT MEETING.

I3.2. CONDUCTS OR ATTENDS MEETING. Conducts or attends meeting.

I3.2.2. CONDUCTS OR ATTENDS UNIT MEETING.

I3.2.5. CONDUCTS OR ATTENDS WORK CENTER MEETING.

I4. TRAINING:

I4.4. RECEIVES TRAINING. Prepares for training, receives instruction, performs procedures, and takes test.

I6. EQUIPMENT MAINTENANCE:

I6.1. MAINTAINS SHOP EQUIPMENT:

I6.1.1. MAINTAINS MACHINERY. Performs periodic inspection and performs preuser inspection.

I6.1.1.1. MAINTAINS MACHINERY (NONAIRCRAFT MAINTENANCE FUNCTIONS).

I6.1.2. MAINTAINS TEST EQUIPMENT. Maintains list of equipment requiring Precision Measurement Equipment Laboratory (PMEL) calibration or testing, turns in and picks up equipment from PMEL or PMEL coordinator, prepares letter of justification for peculiar equipment code (PEC) equipment, performs preuser inspection, and performs periodic inspection.

I6.1.2.1. MAINTAINS TEST EQUIPMENT (NONAIRCRAFT MAINTENANCE FUNCTIONS).

I6.1.3. MAINTAINS CONSOLIDATED TOOL KIT (CTK). Orders new or replacement tool, conducts periodic inventory, and reports missing tool.

I6.1.3.1. MAINTAINS CTK (NONAIRCRAFT MAINTENANCE FUNCTIONS).

I7. CLEANUP:

I7.1. PREPARES WORK AREA. Places tool or equipment in proper location at beginning of duty period, and arranges area to conform with any sanitary, safety, or security requirement.

I7.2. PUTS WORK AWAY. Stores tool or equipment in proper location at the end of the duty period and arranges area to conform with sanitary, safety, or security requirement.

I7.3. CLEANS WORK AREA. Dusts, sweeps, mops, waxes, buffs, washes window, and performs other associated janitorial tasks.

I7.3.2. CLEANS MAINTENANCE OR WAREHOUSE AREA.

STANDARD MANPOWER TABLE										
WORK CENTER/FAC				APPLICABILITY MAN-HOUR RANGE						
Power Production/FAC 2600C5				110.17 - 331.98						
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT							
Heating, Ventilation, Air Conditioning, and Refrigeration	3E1X1	CIV	1*	1	1					
Electrical Power Production	3E0X2	CIV		1	2					
*This position may be filled with a 3E0X2, Electrical Power Production										
TOTAL			1	2	3					
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT							
TOTAL										

Combat Communications Squadron

UTC Listing

Equip	UTC
CCTF	6JCA1
GRC-171	6KGB1
GRC-175	6KGH1
GRC-206(MRC108)	6KGQ1
MRC-144	6KGN1
MRT-2	6KLN4
OA-8112	No UTC
SB-3614	6KCM1
SB-3865	6KCG1
TGC-27	6KDF1
TRC-170 V2	6KHG1
TRC-170 V3	6KHH1
TRC-176	6KGF1
TRQ-35(TRQ-42)	6KLT1
TRQ-42(TRQ-35)	6KLR1
TSSR	6KFZ1
TSC-60 V2/V4	6KFE1
TSC-60 V3	6KFF1
TSC-60 V4	6KFM1
TSC-60 V7	6JC45
TSC-60 V8 W/OG190	6KFM1
TSC-60 V9 W/OG190	6KFN1
TSC-60 V10	NO UTC
TSC-85	6KJS1
TSC-88	6KJC1
TSC-93	6KJP1
TSC-94	6KJV1
	6KJL1
	6KJB1
	6KJN1
TSC-100	6KJK1
	6KGN1
TSC-102	6KJD1
TSC-107	6KAB8
TSC-122	6JC46
TSQ-146	6KLM4
TSQ-111	6KED1
TTC-39A	6KCJ1
	6KCH1
TTC-39	6KQG1
	6KDQ1
TWADS (THM-3)	6KHB1
	6KHJ1
URC-119	6KFP1