

BASE RADIO MAINTENANCE  
Combat Readiness Training Center (CRTC)

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 at attachment 1 for varying levels of workload volume in the Base Radio Maintenance function of the CRTC.

2. **Authority.** AFI 33-series (formerly 700-series) of Air Force and Air National Guard directives contains policy and procedural guidance for the Base Radio Maintenance function. This ANGMS has been developed in accordance with functional review procedures outlined in AFPAM 38-208V1, *Air Force Management Engineering Program (MEP) Processes*, formerly AFR 25-5.

3. **Applicability.** This standard applies to the Combat Readiness Training Centers located at Phelps Collins ANGB, Alpena, MI; Volk Field ANGB, Camp Douglas, WI; Savannah International Airport, Savannah, GA; and Gulfport-Biloxi Regional Airport, Gulfport, MS only. This ANGMS applies to peacetime operations only.

4. **Standard Data:**

- a. Classification. Manpower Guide.
- b. Approval Date. 2 February 1993.
- c. Man-hour Data Source. Operational Audit (technical estimate technique).

d. Standard Man-hour Equation:

- (1) Equipment.  $Y_1 = 1.468X_1$ .
- (2) Travel.  $Y_2 = 6.803 + .1059X_2$ .
- (3) Land Mobile Radio (LMR):
  - (a) Repair.  $Y_3 = 3.1956X_3$ .
  - (b) Installation.  $Y_4 = 1.3585X_4$ .
  - (c) Removal.  $Y_5 = .7544X_5$ .
  - (d) Preventative Maintenance Inspection.  $Y_6 = .4266X_6$ .

e. Workload Factors:

(1) Title:

- (a)  $X_1$ . Summation of Equipment Man-Hour Values.
- (b)  $X_2$ . Average Monthly Miles Traveled.
- (c)  $X_3$ . Land Mobile Radio Repair Request Completed.
- (d)  $X_4$ . Land Mobile Radio Installation Request Completed.
- (e)  $X_5$ . Land Mobile Radio Removal Request Completed.
- (f)  $X_6$ . Land Mobile Radio Preventative Maintenance Inspection Completed.

(2) Definition:

- (a)  $X_1$ . The summation of system/equipment man-hour values for each base radio system/equipment item assigned to the unit. Equipment man-hour values are indexes specifically developed to account for direct maintenance man-hours required to maintain individual base radio system/equipment items.
- (b)  $X_2$ . The average monthly miles traveled by the Base Radio Maintenance work center.
- (c)  $X_3$ . The average monthly LMR repair requests completed.
- (d)  $X_4$ . The average monthly LMR installation requests completed.
- (e)  $X_5$ . The average monthly LMR removal requests completed.
- (f)  $X_6$ . The average monthly LMR preventative maintenance inspections performed.

## (3) Source:

(a) X<sub>1</sub>. Work Center Master Equipment ID listing, physical inventory, and Standard Application Worksheet at attachment 3. Use the application worksheet to accomplish the physical inventory. The number of each type of base radio system/equipment item accounted for during the physical inventory of systems/equipment should be documented in the "QUANTITY ASSIGNED" column on the application worksheet for the appropriate equipment item. All system/equipment items are considered to be included in one of the system/equipment groups and will have a man-hour value assigned for that system/equipment item.

(b) X<sub>2</sub>. Base Radio Maintenance vehicle control mileage log maintained by the vehicle control officer and/or the Transportation section.

(c) X<sub>3</sub>. Local LMR work order request records maintained by Maintenance Control, FAC 2620TC.

(d) X<sub>4</sub>. Local LMR work order request records maintained by Maintenance Control, FAC 2620TC.

(e) X<sub>5</sub>. Local LMR work order request records maintained by Maintenance Control, FAC 2620TC.

(f) X<sub>6</sub>. Local LMR work order request records maintained by Maintenance Control, FAC 2620TC.

**5. Application Instructions:**

a. The valid man-hour range of 170.15 to 739.78 will not be exceeded.

b. Collect each workload factor and complete the Standard Application Worksheet at attachment 3. Appendix A on the application worksheet has an equipment listing by equipment group. During the development of the man-hour values, some of the individual equipment items did not meet statistical parameters to be included in their appropriate system; therefore, two system groups were developed, Group A and Group B. Their model number and man-hour values have been identified under their appropriate system/equipment group.

c. Once the total man-hours have been determined, use the appropriate military man-hour availability factor to determine total requirements.

d. Refer to attachment 2, AF Form 1113, Standard Manpower Table, to determine specific Air Force specialties.

**6. Statement of Conditions.** This work center has conditions that impact the work center's ability to perform work identified in the WCD. Specific conditions have been incorporated in the computations of the manpower standard and are identified below:

a. Climatic Conditions. Extreme hot or cold temperatures limit exposure of personnel and equipment to natural conditions. Snow and ice cause certain tasks to be done more frequently, and rain and humidity impact the frequency of corrosion control performed on equipment.

b. Physical Conditions. The work center is generally not located with the equipment serviced. Travel time is necessary to accomplish direct categories of work. The age of the equipment directly impacts the maintenance categories of work.

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**OFFICIAL**

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**3 Attachments**

- 1. Work Center Description**
- 2. Standard Manpower Table**
- 3. Standard Application Worksheet**

## WORK CENTER DESCRIPTION

### Base Radio Maintenance

#### DIRECT:

#### 1. EQUIPMENT PREVENTIVE MAINTENANCE:

**1.1. PERFORMS PREVENTIVE MAINTENANCE.** Prepares for maintenance; performs operational check and visual inspection in accordance with applicable technical data; and performs post-maintenance action.

**1.1.1. PERFORMS PREVENTIVE MAINTENANCE ON VERY HIGH FREQUENCY (VHF) AND ULTRA HIGH FREQUENCY (UHF) TRANSMITTER.**

**1.1.2. PERFORMS PREVENTIVE MAINTENANCE ON HIGH FREQUENCY (HF) RECEIVER.**

**1.1.3. PERFORMS PREVENTIVE MAINTENANCE ON VHF AND UHF RECEIVER.**

**1.1.4. PERFORMS PREVENTIVE MAINTENANCE ON HF TRANSCEIVER.**

**1.1.5. PERFORMS PREVENTIVE MAINTENANCE ON VHF TRANSCEIVER.**

**1.1.6. PERFORMS PREVENTIVE MAINTENANCE ON UHF TRANSCEIVER.**

**1.1.7. PERFORMS PREVENTIVE MAINTENANCE ON UHF/VHF TRANSCEIVER.**

**1.1.8. PERFORMS PREVENTIVE MAINTENANCE ON RECORDER/REPRODUCER.**

**1.1.9. PERFORMS PREVENTIVE MAINTENANCE ON CONTROL MONITOR GROUP.**

**1.1.10. PERFORMS PREVENTIVE MAINTENANCE ON EXTERNAL LINEAR POWER AMPLIFIER.**

**1.1.11. PERFORMS PREVENTIVE MAINTENANCE ON ANTENNA TUNING UNIT COUPLER.**

**1.1.12. PERFORMS PREVENTIVE MAINTENANCE ON CONTROL TOWER EQUIPMENT.**

**1.1.13. PERFORMS PREVENTIVE MAINTENANCE ON RADAR APPROACH CONTROL EQUIPMENT.**

**1.1.14. PERFORMS PREVENTIVE MAINTENANCE ON CONSOLE.**

**1.1.15. PERFORMS PREVENTIVE MAINTENANCE ON FACSIMILE.**

**1.1.16. PERFORMS PREVENTIVE MAINTENANCE ON RUNWAY SURVEILLANCE UNIT.**

**1.1.17. PERFORMS PREVENTIVE MAINTENANCE ON COMMUNICATIONS PATCH PANEL.**

**1.1.18. PERFORMS PREVENTIVE MAINTENANCE ON FIELD TELEPHONE.**

**1.1.19. PERFORMS PREVENTIVE MAINTENANCE ON PHONE PATCH.**

**1.2. ASSISTS IN QUALITY CONTROL (QC) INSPECTION.** Assists the QC inspector performing the inspection by providing technical assistance and performing tasks as requested.

1.2.1. ASSISTS IN SPECIAL INSPECTION.

1.2.2. ASSISTS IN TECHNICAL INSPECTION.

**2. EQUIPMENT REPAIR:**

2.1. PERFORMS EQUIPMENT REPAIR. Prepares for maintenance; troubleshoots malfunction; isolates malfunction; repairs, resets, removes, replaces, aligns, adjusts, calibrates, lubricates, and cleans equipment; treats corrosion; accomplishes performance check; and performs post-maintenance action.

2.1.1. PERFORMS REPAIR ON VHF AND UHF TRANSMITTER.

2.1.2. PERFORMS REPAIR ON HF RECEIVER.

2.1.3. PERFORMS REPAIR ON VHF AND UHF RECEIVER.

2.1.4. PERFORMS REPAIR ON HF TRANSCEIVER.

2.1.5. PERFORMS REPAIR ON VHF TRANSCEIVER.

2.1.6. PERFORMS REPAIR ON UHF TRANSCEIVER.

2.1.7. PERFORMS REPAIR ON UHF/VHF TRANSCEIVER.

2.1.8. PERFORMS REPAIR ON RECORDER/REPRODUCER.

2.1.9. PERFORMS REPAIR ON CONTROL MONITOR GROUP.

2.1.10. PERFORMS REPAIR ON EXTERNAL LINEAR POWER AMPLIFIER.

2.1.11. PERFORMS REPAIR ON ANTENNA TUNING UNIT COUPLER.

2.1.12. PERFORMS REPAIR ON CONTROL TOWER AND EQUIPMENT.

2.1.13. PERFORMS REPAIR ON RAPCON EQUIPMENT.

2.1.14. PERFORMS REPAIR ON CONSOLE.

2.1.15. PERFORMS REPAIR ON FACSIMILE.

2.1.16. PERFORMS REPAIR ON RUNWAY SURVEILLANCE UNIT.

2.1.17. PERFORMS REPAIR ON COMMUNICATIONS PATCH PANEL.

2.1.18. PERFORMS REPAIR ON FIELD TELEPHONE.

2.1.19. PERFORMS REPAIR ON PHONE PATCH.

2.2. ASSISTS DEPOT MAINTENANCE. Removes equipment, prepares for shipment, receives and inspects equipment, installs equipment, accomplishes performance check, and assists in special inspection.

**3. EQUIPMENT MODIFICATION:**

**3.1. PREPARES FOR MODIFICATION.** Coordinates with appropriate agency; obtains and reviews applicable directive, obtains test equipment, tools, material, and spare parts; prepares work area; and coordinates equipment release.

**3.2. PERFORMS EQUIPMENT MODIFICATION.** Performs equipment modification IAW applicable directive; resets, removes, replaces, aligns, adjusts, calibrates, lubricates, cleans, and treats corrosion; and accomplishes performance check.

**3.3. PERFORMS POST-MODIFICATION ACTION.** Coordinates equipment restoral and cleans work area.

**4. TRAVEL.** Performs associated travel to and from location of equipment requiring maintenance.

**5. EQUIPMENT PARTS ACQUISITION.** Researches and orders part associated with equipment preventive maintenance, equipment repair, equipment modification, and minor installation/removal.

**6. MINOR INSTALLATION/REMOVAL:**

**6.1. PREPARES FOR INSTALLATION/REMOVAL.** Receives and reviews job to determine job requirement; coordinates with and assists appropriate agency; obtains and reviews applicable directive; obtains test equipment, tools, material, and spare part; on-loads/off-loads vehicle and prepares work area.

**6.2. PERFORMS INSTALLATION/REMOVAL.** Installs or removes applicable new equipment, removes and installs existing local unit level equipment; resets, aligns, adjusts, calibrates, lubricates, cleans, treats for corrosion, and accomplishes performance check.

**6.3. PERFORMS POST-INSTALLATION/REMOVAL ACTION.** Coordinates with appropriate agency; cleans work area; stores tools, material, technical data, and equipment; and completes documentation.

**7. LAND MOBILE RADIO (LMR):**

**7.1. REPAIRS LMR:**

**7.1.1. REPAIRS BASE STATION LMR.** Travels to base station and troubleshoots unit. Removes unit, travels back to work center, and performs necessary repair work. Travels back to base station location, reinstalls unit, and returns to work center.

**7.1.2. REPAIRS VEHICLE MOUNTED LMR.** Troubleshoots unit inside vehicle and removes unit for further repair if necessary. Performs repair work and returns unit to vehicle upon completion of repair.

**7.1.3. REPAIRS HAND-HELD/PORTABLE LMR.** Troubleshoots unit and performs repair as necessary.

**7.1.4. REPAIRS LMR REMOTE CONTROL DEVICE.** Travels to remote control device location and troubleshoots device. Removes unit, travels back to work center, and performs necessary repair work. Travels back to base station location, reinstalls unit, and returns to work center.

**7.1.5. REPAIRS LMR BATTERY CHARGER.** Travels to location and troubleshoots device. Removes unit, travels back to work center, and performs necessary repair work. Travels back to LMR location, reinstalls unit, and returns to work center.

**7.2. INSTALLS/ACTIVATES LMR:**

**7.2.1. INSTALLS BASE STATION LMR.** Assembles unit, travels to installation location, installs assembled base station, and returns to work center.

**7.2.2. INSTALLS MOBILE LMR IN VEHICLE.** Assembles mobile unit and installs in appropriate vehicle.

**7.2.3. ACTIVATES HAND-HELD/PORTABLE LMR.** Performs tasks necessary to activate hand-held/portable unit.

**7.2.4. INSTALLS LMR REMOTE CONTROL DEVICE.** Assembles device, travels to installation location, installs remote control device, and returns to work center.

**7.3. REMOVES LMR:**

**7.3.1. REMOVES BASE STATION LMR.** Travels to base station, removes unit, and returns to work center.

**7.3.2. REMOVES MOBILE LMR FROM VEHICLE.** Travels to vehicle location, removes unit from vehicle, and returns to work center.

**7.3.3. REMOVES REMOTE CONTROL DEVICE.** Travels to device location, removes device, and returns to work center.

**7.4. PERFORMS LMR PREVENTATIVE MAINTENANCE INSPECTION (PMI):**

**7.4.1. PERFORMS BASE STATION PMI.** Travels to base station location, completes PMI, and returns to work center.

**7.4.2. PERFORMS MOBILE LMR PMI.** Travels to unit, completes PMI, and returns to work center.

**7.4.3. PERFORMS HAND-HELD/PORTABLE LMR PMI.** Completes PMI on hand-held/portable LMR.

**INDIRECT:**

**I1. SUPERVISION:**

**I1.1. ADMINISTERS PERSONNEL:**

**I1.1.1. HIRES EMPLOYEE.** Develops position description, develops job analysis work sheet, submits request for hire, reviews personnel data, interviews applicant, and finalizes selection.

**I1.1.2. INDOCTRINATES PERSONNEL.** Conducts initial interview, makes original job assignment, and acquaints new member with work center.

**I1.1.3. RATES PERFORMANCE:**

**I1.1.3.1. DRAFTS AND COMPLETES PERFORMANCE REPORT.** Drafts and finalizes NGB Form 26, ANG Military Personnel Performance Rating.

**I1.1.3.2. ENDORSES PERFORMANCE REPORT.** Reviews completed NGB Form 26 and endorses.

**I1.1.3.3. PREPARES/MAINTAINS MILITARY ACTIVE GUARD RESERVE (AGR) RECORD.** Annually prepares/maintains AGR personnel record folder as per state regulation.

**I1.1.3.4. REVIEWS MILITARY AGR RECORD.** Annually reviews AGR personnel record folder as per state regulation.

**I1.1.4. PREPARES MILITARY/STATE AWARD OR DECORATION NOMINATION.** Reviews and returns award or decoration submission consideration letter, reviews report of individual personnel, researches directive, drafts nomination and citation, proofreads nomination and citation final typed copy, and signs as required.

**I1.1.5. SUBMITS MANAGEMENT IMPROVEMENT RECOMMENDATION:**

**I1.1.5.1. SUBMITS IMPROVEMENT PACKAGE.** Researches information, prepares, and evaluates suggestion.

**I1.1.5.2. PROCESSES SUGGESTION RECEIVED FOR EVALUATION.** Evaluates suggestion and prepares recommendation.

**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 REGULATION, OPERATIONAL INSTRUCTION, OR SUPPLEMENT.** Researches applicable document, develops draft, coordinates draft, and proofreads the final copy.

**I1.2.2.2. DEVELOPS BULLETIN, POLICY LETTER, OR PROCEDURE.** Researches applicable document, develops draft, coordinates draft, and proofreads and signs final copy.

**I1.2.2.3. DEVELOPS PLAN, PROGRAMMING PLAN, PROGRAM DIRECTIVE, OR PROGRAM GUIDANCE LETTER.** Researches applicable document, develops draft, coordinates draft, and proofreads and signs final copy.

**I1.2.2.4. DEVELOPS PERFORMANCE STANDARD OR CHECKLIST.** Researches applicable document, develops draft, coordinates draft, and proofreads and signs final copy.

**I1.2.2.5. DEVELOPS SELF-INSPECTION CHECKLIST.** Researches applicable document, develops draft, coordinates draft, and proofreads and signs final copy.

**I1.2.3. DIRECTS WORK CENTER ACTIVITY:**

**I1.2.3.1. INSPECTS WORK IN PROGRESS.** Inspects and reviews subordinate's work, and travels to and from subordinate's work area.

**I1.2.3.2. COORDINATES ON WORK CENTER OR PERSONNEL STATUS.** Coordinates with supervisor or other unit agency on work center or personnel status, makes associated telephone call, and performs travel.

**I1.2.3.3. KEEPS WORK CENTER PERSONNEL INFORMED.** Informs work center personnel on change affecting individual and work center activity.

**I1.2.3.4. PREPARES ROUTINE CORRESPONDENCE.** Reviews and assembles associated material, drafts correspondence, and finalizes correspondence.

**I1.2.4. COUNSELS PERSONNEL.** Counsels subordinate personnel on performance and progress in career development and improvement. Counsels and assists individuals with morale, welfare, or disciplinary problems. Takes necessary corrective action required to maintain discipline.

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

**I1.4. REVIEWS OUTGOING DISTRIBUTION.** Reviews outgoing correspondence for completeness and accuracy and signs.

**I1.5. 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 action.

**I1.6. DEVELOPS BUDGET ESTIMATE.** Prepares budget input by researching, evaluating, coordinating, and drafting estimate, forwards estimate to unit resource advisor, and answers follow-on inquiry on estimate.

**I1.6.1. DEVELOPS ANNUAL BUDGET ESTIMATE.**

**I1.6.2. DEVELOPS QUARTERLY BUDGET UPDATE ESTIMATE.**

**I1.7. INSPECTS FACILITY:**

**I1.7.1. VALIDATES HAZARD ABATEMENT LOG.** Validates hazard abatement log and forwards to safety office.

**I1.7.2. PREPARES USAF HAZARD REPORT.** Prepares USAF Hazard Report and forwards to safety office, reviews response from safety office, appeals response, and reviews answer to appeal.

**I1.7.3. INSPECTS FACILITY.** Periodically inspects work center facility for housekeeping, safety, fire hazard, or equipment conditions that require attention; prepares report; and forwards to proper agency.

**I1.8. ASSISTS IN MISHAP OR INCIDENT INVESTIGATION.** Notifies emergency response agency, informs safety office, and assists in investigation.

**I2. ADMINISTRATION:**

**I2.1. TYPES COMMUNICATION.** Obtains and assembles material, types draft, separates copies, collates material, fastens material, proofreads material, releases to originator, receives material for final type, types final releases to originator, and files copy.

**I2.1.1. TYPES LETTER OR FORM.**

**I2.1.2. TYPES MESSAGE.**

**I2.1.3. TYPES REPORT.**

**I2.1.4. TYPES EVALUATION.** Reviews draft, types draft, and types final evaluation.

**I2.1.5. TYPES NGB FORM 26.**

**I2.1.6. TYPES AWARD OR DECORATION.**

**I2.1.7. TYPES PLAN, SCHEDULE, OR ROSTER.**

**I2.1.8. TYPES STATISTICAL DATA.**

**I2.2. PROCESSES UNCLASSIFIED DISTRIBUTION:**

**I2.2.1. PROCESSES INCOMING DISTRIBUTION.** Picks up distribution, receives and opens envelope, reviews for required action, and marks and routes distribution.

**I2.2.2. PROCESSES OUTGOING DISTRIBUTION.** Obtains envelope or bulk mailing container, places outgoing correspondence in envelope or container, affixes outside address and return address, places in outbound receptacle, and delivers to pickup point.

**I2.3. MAINTAINS UNCLASSIFIED CORRESPONDENCE FILE:**

**I2.3.1. ESTABLISHES NEW FILE.** Researches regulation, amends file plan, prepares files control label, and prepares new file folder.

**I2.3.2. UPDATES FILE.** Reviews file for currency, updates file plan, updates file control label, and updates file guide and folder label.

**I2.3.3. FILES CORRESPONDENCE.** Obtains correspondence from filing tray, marks correspondence, sorts correspondence, and files correspondence.

**I2.3.4. MAINTAINS SUSPENSE FILE.** Determines need for suspense, assigns suspense, posts file, reviews file for compliance, reminds individual of suspense, and annotates file at completion of action.

**I2.3.5. REVIEWS FILE FOR DISPOSAL.** Separates active file from inactive file, prepares material for transfer to staging area, and stores material for disposal.

**I2.3.6. DISPOSES OF DOCUMENTATION.** Disposes of material within the work center and disposes of material outside the work area.

**I2.3.7. MAINTAINS LOG OR REGISTER.** Obtains book or form, makes entry, and puts book or form away.

**I2.3.8. MAINTAINS SECURITY FILE.** Maintains file, removes material, and destroys material.

**I2.3.9. MAINTAINS PERSONNEL LOCATOR FILE.** Prepares card or record, posts change, and disposes of card or record.

**I2.4. MAINTAINS CLASSIFIED MATERIAL:**

**I2.4.1. CONTROLS MATERIAL.** Removes material from file, prepares document receipt, routes material, annotates receipt, and files material.

**I2.4.2. INVENTORIES MATERIAL.** Verifies accountability of top secret material and prepares inventory report.

**I2.4.3. SAFEGUARDS MATERIAL.** Checks safe, annotates form, checks room or area, and changes safe combination.

**I2.4.4. DESTROYS MATERIAL.** Selects material to be destroyed, prepares destruction record, destroys material, and signs destruction record.

**I2.5. MAINTAINS CENTRALIZED UNCLASSIFIED PUBLICATION FILE:**

**I2.5.1. ORDERS ADMINISTRATIVE PUBLICATION.** Prepares requisition form, obtains authorizing signature, forwards form, and files form.

**I2.5.2. MAINTAINS INDEX.** Posts new index, posts new publication change to index, and returns index to library.

**I2.5.3. MAINTAINS PUBLICATION.** Removes binder from library, posts change, and returns publication binder to library.

**I2.5.4. DETERMINES REQUIREMENT FOR PUBLICATION.** Determines need for publication, marks index, and disposes of obsolete or nonrequired publication.

**I2.6. OPERATES COPYING MACHINE.** Travels to copying machine, makes copy, annotates log, collates copy, and returns to work area.

**I2.7. MAINTAINS CONSOLIDATED STOCK OF BLANK FORMS.** Determines requirement, prepares requisition form, receives form, distributes form, files form, requisitions and maintains accountable form, disposes of obsolete form, and removes and deletes unneeded requisition form.

**I2.8. MAINTAINS BULLETIN BOARD.** Carries information to bulletin board, posts new information, removes obsolete information, and returns to work area.

**I2.9. MAINTAINS TIME AND ATTENDANCE CARD.** Annotates card, completes card, reviews card for accuracy, obtains required signature, and forwards card to civilian pay.

**I2.10. PROVIDES STENOGRAPHIC SERVICE:**

**I2.10.1. TAKES DICTATION.** Answers request, assembles material, travels to place of dictation, takes dictation, and returns to work area.

**I2.10.2. TAKES MINUTES.** Answers request, assembles material, travels to meeting, takes minutes, and returns to work area.

**I2.10.3. TRANSCRIBES MATERIAL.** Assembles material, types material, reviews typed material, forwards to supervisor, and finalizes appointment.

**I2.11. MAINTAINS APPOINTMENT RECORD.** Receives request, annotates record, coordinates appointment with supervisor, and finalizes appointment.

**I2.12. ACKNOWLEDGES VISITOR.** Greets visitor, answers query, and refers visitor to appropriate person or location.

**I2.13. PROCESSES AUTOMATIC DATA PROCESSING CARD.** Receives input data, punches card, verifies punched information, corrects error, and releases card to originator.

**I2.14. MAINTAINS COMPUTER SYSTEM.** Installs software and hardware, modifies software, adds and removes users, tests new software and hardware, troubleshoots problems, deletes outdated files, and backs-up system.

**I3. MEETING:**

**I3.1. PREPARES FOR MEETING.** Gathers information, organizes material, prepares chart or slide, practices presentation, and travels to meeting place.

**I3.2. CONDUCTS OR ATTENDS MEETING.** Conducts or attends meeting and returns to work area.

**I4. TRAINING:**

**I4.1. ADMINISTERS TRAINING:**

**I4.1.1. EVALUATES INDIVIDUAL TRAINING REQUIREMENT.** Compares member's qualification with work center duty requirement, compares technical school graduation requirement with classification manual, prepares and submits training quality report (TQR), designates trainer, and prepares new training record.

**I4.1.2. DEVELOPS TRAINING PLAN.** Determines training requirement, develops job qualification standard continuation sheet, develops training chart or equivalent, and develops or revises training schedule.

**I4.1.3. CONTROLS CAREER DEVELOPMENT COURSE (CDC) PACKAGE.** Controls CDC material, prepares and submits training quality report (TQR), reviews volume review exercise results with trainee, and reviews CDC material with trainee.

**I4.1.4. COUNSELS TRAINEE.** Conducts initial training interview, counsels trainee on training progress, and documents counseling on training record.

**I4.2. MAINTAINS TRAINING RECORD.** Reviews and updates training record to ensure currency of required documentation and forms.

**I4.3. DEVELOPS TRAINING MATERIAL.** Researches required information, updates existing training material, drafts new training material, develops training aid, and revises training aid.

**I4.4. CONDUCTS TRAINING.** Prepares training situation, makes presentation, observes performance, administers test, and annotates training record.

**I4.5. RECEIVES TRAINING.** Prepares for training, receives instruction, performs procedures, and takes test.

**I4.6. READS PUBLICATION.** Reads technical and standard publication to maintain job proficiency.

**I5. SUPPLY:**

**I5.1. PROCESSES EQUIPMENT REQUEST.** Determines need and authorization for equipment, researches stock number or nomenclature, prepares justification, submits request, takes follow-up action, and receives or turns in equipment.

**I5.2. CONDUCTS INVENTORY.** Inventories equipment on hand and ensures accuracy of records.

**I5.3. MAINTAINS CUSTODIAN DOCUMENT.** Receives listing from supply, posts change to record, and resolves inconsistency.

**I5.4. OBTAINS EXPENDABLE SUPPLIES.** Determines need, researches stock number, picks up expendable supplies from supply custodian, and distributes supplies.

**I6. EQUIPMENT MAINTENANCE:**

**I6.1. MAINTAINS OFFICE EQUIPMENT.** Cleans equipment; dusts equipment; changes ribbon, belt, or tape; and makes minor adjustment.

**I6.2. MAINTAINS SHOP EQUIPMENT:**

**I6.2.1. MAINTAINS MACHINERY.** Performs periodic inspection, performs preuser inspection, and maintains list of equipment.

**I6.2.2. MAINTAINS TEST EQUIPMENT.** Establishes and 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 equipment, performs preuser inspection, and performs periodic inspection.

**I6.2.3. MAINTAINS CONSOLIDATED TOOL KIT (CTK).** Orders new or replacement tool, inspects CTK, conducts periodic inventory, and reports missing tool.

**I6.2.4. MAINTAINS INDIVIDUAL TOOL KIT.** Reports to supply for initial or subsequent issue, replaces broken or lost tool, and conducts periodic inventory.

**I6.3. MAINTAINS ASSIGNED VEHICLE.** Performs operator inspection, washes vehicles, and refuels vehicle.

**I7. CLEANUP:**

**I7.1. PREPARES WORK AREA.** Places working 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 working tools 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, and performs other associated janitorial tasks.

STANDARD MANPOWER TABLE										
WORK CENTER/FAC			APPLICABILITY MAN-HOUR RANGE							
Base Radio Maintenance/FAC 265ATC			170.15 - 739.78							
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT							
Grd Radio Comm	304X4	AGR	1	1	2	2				
Grd Radio Comm	304X4	AGR	1	2	2	3				
<b>TOTAL</b>			<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>				
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT							
<b>TOTAL</b>										

STANDARD APPLICATION WORKSHEET

CRTC LOCATION: \_\_\_\_\_

**EQUIPMENT AND SUPPORT MAN-HOUR CALCULATIONS:** Do not include any UHF/VHF equipment that can be categorized as Land Mobile Radio (LMR)

<u>GROUP NO.</u>	<u>EQUIPMENT GROUP</u>	<u>QUANTITY ASSIGNED</u>		<u>EQUIPMENT VALUE</u>		<u>EQUIPMENT MAN-HOUR</u>
1.	= UHF or VHF Transmitter	_____	X	2.085	=	_____
2.	= HF Receiver	_____	X	6.479	=	_____
3.	= UHF or VHF Receiver	_____	X	1.263	=	_____
4.	= HF Transceiver	_____	X	9.247	=	_____
5.	= VHF Transceiver	_____	X	2.097	=	_____
6.	= UHF Transceiver (Group A)	_____	X	11.37	=	_____
7.	= UHF Transceiver (Group B)	_____	X	2.735	=	_____
8.	= UHF/VHF Transceiver	_____	X	1.262	=	_____
9.	= Recorder/Reproducer (Group A)	_____	X	25.36	=	_____
10.	= Recorder/Reproducer (Group B)	_____	X	6.639	=	_____
11.	= Control Monitor Group (Group A)	_____	X	3.627	=	_____
12.	= Control Monitor Group (Group B)	_____	X	1.723	=	_____
13.	= External Linear Power Amplifier	_____	X	2.891	=	_____
14.	= Antenna Tuning Unit Coupler	_____	X	.5759	=	_____
15.	= Control Tower Monitor (GSA-135)	_____	X	23.96	=	_____
16.	= Control Tower Monitor (OJ-314)	_____	X	29.47	=	_____
17.	= RAPCON/Tower Operator Positions	_____	X	7.197	=	_____
18.	= Console	_____	X	6.876	=	_____
19.	= Facsimile	_____	X	9.419	=	_____
20.	= Runway Surveillance Unit	_____	X	27.75	=	_____
21.	= Communications Patch Panel	_____	X	3.044	=	_____
22.	= Field Telephone	_____	X	.6597	=	_____
23.	= Phone Patch	_____	X	1.219	=	_____

**TOTAL EQUIPMENT MAN-HOURS=**  
**MULTIPLIED BY SUPPORT FACTOR X** 1.468

**(A) TOTAL EQUIPMENT AND SUPPORT MAN-HOURS** = \_\_\_\_\_

**TRAVEL MAN-HOURS CALCULATIONS:**

AVERAGE NUMBER OF MILES TRAVELED MONTHLY	=	_____
	X	<u>.1059</u>
	=	_____
PLUS CONSTANT MAN-HOURS	+	<u>6.803</u>
(B) TOTAL TRAVEL MAN-HOURS	=	_____
LMR MAN-HOURS CALCULATIONS:		
AVERAGE NUMBER OF LMR REQUESTS COMPLETED MONTHLY:		
a. Repair. _____	X	3.196
	=	_____
b. Installation _____	X	1.359
	=	_____
c. Removal _____	X	.7544
	=	_____
d. PMI _____	X	.4266
	=	_____
(C) TOTAL LMR MAN-HOURS	=	_____
(D) TOTAL MAN-HOURS (LINES A, B, C)	=	_____
(E) CURRENT MILITARY MAF	=	_____
FRACTIONAL MANPOWER (Divide line (D) by (E))	=	_____

Appendix  
 Base Radio Equipment Listing by  
 System Group

**BASE RADIO EQUIPMENT GROUPS**

Do not count any UHF/VHF equipment that can be categorized as Land Mobile Radio (LMR) equipment

EQUIP  
GROUP  
NOS.

1 **ULTRA HIGH FREQUENCY (UHF) OR VERY HIGH FREQUENCY (VHF)  
TRANSMITTER EQUIPMENT GROUP**

Group Man-Hour Range: LCL = .2334 UCL = 3.936

GRT-21	SU-131A
GRT-22	SU-151
GRT-32	SU-151A
SU-131	TCS-4B

2 **HIGH FREQUENCY (HF) RECEIVER EQUIPMENT GROUP**

Group Man-Hour Range: LCL = 0 UCL = 14.98

GSB-900	SR-1650
1COM-720A	SSR-510
R-390A	ST-1075
R-442	TR-4
R-1003	TRQ-35
R-1828	515-1B
R-2174	651-F1
RA-6790	755-2
RACAL Receiver	755-3C
SP-520	1000-S
SR-1602	1500-CRX

3 **UHF OR VHF RECEIVER EQUIPMENT GROUP**

Group Man-Hour Range: LCL = 0 UCL = 3.259

GRR-23	EV-25002/3
GRR-24	EP-21002/3
GRR-25	F-500
GRR-32	AAS-3B

4 **HF TRANSCEIVER EQUIPMENT GROUP**

Group Man-Hour Range: LCL = .4630 UCL = 18.03

GAZ-6A	RT-246
FRC-153	RT-442
FRC-176	RT-524
GRC-158	RT-1205
HF-8010	RT-1446
HF-8060	ST-1075

HF-8080	TRC-89
KWM-2A	URC-32
KWT-6	URC-77
MRC-117	URC-79
PRC-47	URC-92
PRC-104	URC-103
R-1250	325-2
RF-230	325-3
RF-350	50E-6
RF-352	671B-1

5 **VHF TRANSCEIVER EQUIPMENT GROUP**

Group Man-Hour Range: LCL = 0 UCL = 5.121

AEROTRON	RT-551A
ALPHA-720	RT-661A
AR-2001	SKY-515
ARC-186	TATT-373
GRC-175	URC-46
GRC-211	URC-47
PRC-25	VHF-203
PRC-68	VRC-12
PRC-77	

6 **UHF TRANSCEIVER EQUIPMENT GROUP A**

Group Man-Hour Range: LCL = 0 UCL = 22.99

ARC-150	PRC-41
ARC-164	PRC-66
GRA-53	TY-1270
GRA-54	URC-80
TRC-68	

7 **UHF TRANSCEIVER EQUIPMENT GROUP B**

Group Man-Hour Range: LCL = 0 UCL = 6.395

GRC-171

8 **UHF/VHF TRANSCEIVER EQUIPMENT GROUP**

Group Man-Hour Range: LCL = 0 UCL = 4.104

PRC-113	URC-104	WSC-3	(FSC-82)
PRC-133	URC-110		
TRC-176	XT-3039		
URC-101			

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**RECORDER/REPRODUCER EQUIPMENT GROUP A**

Maximum group equipment value of 1 per installation

Group Man-Hour Range: LCL = 11.20 UCL = 39.52

GSH-33	GSH-46
GSH-34	GSH-47
GSH-35	HONEYWELL-96
GSH-36	

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**RECORDER/REPRODUCER EQUIPMENT GROUP B**

Maximum group equipment value of 1 per installation

Group Man-Hour Range: LCL = .3120 UCL = 12.97

AF-2520	Memo-MR
A-77	MX-10387
B77-SLS	MR-200
CDD-1000	RP-181
Commercial Tape Reader	RP-274
COC Tape Deck	RP-343
CPC60-1	TP-1510
CS-MO1A	TP-1710
CT-70R	TP-1720
CTR-56	TD-2903
Code-A-Phone	REVOXA-77
Dict 4000	RS-676VS
Dict 5000	2515AV
DCTAM-1	Technics M-85
GSH-52	Technics BMS-85
GSH-56	Pioneer CT-7R
GSH-57	Sony TC-K6
GC-1000	TR-538
IRC-32	TR-1705
MCF	RS-260VS
MR-33R	JVC-850
MR-2000	Teley
MOC-5402	Stancile Series
MOD-5403	RD-688
MD-803	Time Receiver
M-88	TASCAM
MOL-4082	18392-1
MR-102A	18398
MR-324A	TT-2460
MS-124	6020
MOD 8390-1	9300
M-1724	

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**CONTROL MONITOR EQUIPMENT GROUP A**

Group Man-Hour Range: LCL = 0 UCL = 8.913

C-1734	C-7999
C-1737	Control Set
C-2767	GRA-116
C-10639	5121Z

**12 CONTROL MONITOR EQUIPMENT GROUP B**

Group Man-Hour Range: LCL = .8758 UCL = 2.570

C-2298	GRA-115
C-2299	GS-1331
C-11329	TC-1600
OK-402	T-1604
OK-423	312B-4

**13 EXTERNAL LINEAR POWER AMPLIFIER EQUIPMENT GROUP**

Group Man-Hour Range: LCL = 0 UCL = 6.452

AM-2223	URG
AM-6154	30L-1
AM-6155	305-1
AM-3979	Henry 4KW
AM-7223	204C-1
500W	A-552
1000W	RF-355
208-3	204F-1
AM-7224	
208-10	
205-51	

**14 ANTENNA TUNING UNIT COUPLER EQUIPMENT GROUP**

Group Man-Hour Range: LCL = .0134 UCL = 1.138

ATS-2B	CU-2274	SP411/B
AT-2500	CU-2310	KWS-1012
CU-224	DB4015-1	1805-1
CU-547	RF-351	143A-1
CU-656	OS-803	URA-38
CU-1382	NV-3011	URA-27A
CU-2176	NV-2511	520F-16
GCU-935		

**15 CONTROL TOWER MONITOR GROUP A**

Group Man-Hour Range: LCL = 0 UCL = 71.87

GSA-135 (1 per facility per building)

**16 CONTROL TOWER MONITOR GROUP B**

Group Man-Hour Range: LCL = 7.459 UCL = 51.49

OJ-314/GSC-37 (1 per facility per building, to include one maintenance coordinator)

17 **RAPCON/TOWER OPERATOR POSITIONS**

Group Man-Hour Range: LCL = 6.477 UCL = 7.917

RAPCON	TOWER
Airport Surveillance Radar (ASR)	Ground Control
Precision Approach Radar (PAR)	Local Control
Flow Coordinator	Flight Data
Stage Coordinator	Stage Coordinator
Clearance Delivery	Supervisor
Various Assistant Positions	Supervisor of
Supervisor	Flying

18 **CONSOLE EQUIPMENT GROUP**

Group Man-Hour Range: LCL = 0 UCL = 16.57

Locally Manufactured	OJ-512
Creek Standard	FPN-47
Elmer	Wescom
ASM-Comm	Command Post
GRC-186	TM-104
FRC-19	URG

19 **FACSIMILE EQUIPMENT GROUP**

Group Man-hour Range: LCL = 0 UCL = 31.97

AFDIGS-9500	GGM-21A
AFDIGS-9600	ALDEN-11
9165/FM	MDL-850R
9271/H	Model-355
9315R	UXC-4
9316R	UXC-6
850RV	UXC-7
850TX-G02	Laser

20 **RUNWAY SURVEILLANCE UNIT EQUIPMENT GROUP**

Group Man-Hour Range: LCL = 12.69 UCL = 42.81

TRN-42  
MRN-20A  
TSW-7  
AW-1

21 **COMMUNICATIONS PATCH PANEL EQUIPMENT GROUP**

Group Man-Hour Range: LCL = 0 UCL = 6.809

FSA-Y MDF/DFY30

OA-1147	CV-89A
SB-2833	W-428
Audio Test & Patch	CB-10548A
SB-2834	SB-239
RF-901A	RPT-2890
OA-449	

**22 FIELD TELEPHONE EQUIPMENT GROUP**

Group Man-Hour Range: LCL = 0 UCL = 1.538

FSK Phone  
CB-10548A  
TA-1  
TA-182  
TA-312

**23 PHONE PATCH EQUIPMENT GROUP**

Group Man-Hour Range: LCL = .1546 UCL = 2.283

SB-22	FTA-28
SB-66	C-7070
SB-86	C-8024
SB-270	TC-121
SP-1212	312-4
FTA-13	7142-11
FTA-15	MDF/IDF
FRA-20	516F
D-1203	302A