

*METEOROLOGICAL-NAVIGATIONAL (METNAV) AIDS EQUIPMENT MAINTENANCE*  
*Combat Readiness Training Center (CRTC)*

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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 Meteorological-Navigational Aids Equipment Maintenance function of the CRTC.

2. **Authority.** The AFI 11- and 21-series (formerly 60- and 66- series) of Air Force directives contain policy and procedural guidance for the Meteorological-Navigational Aids Equipment Maintenance function. This ANGMS has been developed in accordance with procedures outlined for development of single location manpower standards contained 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 Center located at Volk Field ANGB, Camp Douglas, WI only. This standard applies to peacetime operations only.

4. **Standard Data:**

a. **Classification.** Type II.

b. **Approval Date.** 2 February 1993.

c. **Man-Hour Data Source.** The Operational Audit method was used. Historical records, directed requirement, and technical estimate techniques were used for frequency determination. Good operator timing and technical estimates were used for per accomplishment time determination.

d. **Standard Man-Hour Equations:**

(1) Equipment/On-Base Travel.  $Y_1 = -1.580 + 67.49X_1 + 1.321X_2$ .

(2) Snow and Ice Removal.  $Y_2 = 8.38$  (Constant Man-Hours).

(3) Off-Base Travel.  $Y_3 = 6.03$  (Constant Man-Hours).

e. **Workload Factors:**

(1) **Workload Factors:**

(a)  $X_1$ . An Equipment Equivalent.

(b)  $X_2$ . Distance.

(2) **Definition:**

(a)  $X_1$ . The summation of equipment equivalent values computed for each METNAV work center based on the amount and type of fixed electronic equipment systems maintained. An equipment equivalent workload factor is based on the relationship of various equipment systems relative to a baseline value of one. (Note: For this standard, the AN/GRN-29 Instrument Landing System was used as the baseline. The equipment equivalent values for the remaining systems are based on the relationship of each system to a single AN/GRN-29.)

(b)  $X_2$ . The summation of the round-trip distance from the work center to each equipment system that has an equipment equivalent value assigned.

(3) **Source:**

(a)  $X_1$ . Work Center Master Equipment Identification Listing, physical inventory, and Section 1 of the Standard Application Worksheet at attachment 3. The total number of each type of equipment system accounted for in the physical inventory should be documented in the "Quantity Assigned" column on the application worksheet.

(b)  $X_2$ . Obtain from work center personnel using the procedures in part 2 of the instructions for completing application worksheet.

**5. Application Instructions:**

a. The valid man-hour range of 199.34 to 332.24 will not be exceeded.

b. The Standard Application Worksheet at attachment 3 will be used to compute the manpower requirements.

NOTE: Read specific instructions that accompany the worksheet before attempting to fill in and compute the data.

c. During the application, if a new fixed electronic equipment system has been installed that is not listed on the application worksheet, use the following approach:

(1) If the new system replaces a system that is on the equipment list, develop an interim equipment equivalent value for use until the ANGMS is updated to reflect the new equipment. Take the following steps to determine what the interim value should be:

(a) Step One. Determine the monthly man-hours required to perform preventive maintenance, repairs, and flight checks. (Use the Operational Audit technique if the work center has sufficient historical data/experience to estimate the monthly man-hours.)

(b) Step Two. Divide the monthly man-hours obtained in step one by 36.01 (the monthly man-hours for an AN/GRN-29) to determine the interim equipment equivalent value.

(c) Step Three. Include this value in the summation process used to determine the work center's overall equipment equivalent total.

(2) If the new system does not replace a system that is on the equipment list, identify the workload as an exception and document the man-hours required to maintain the system on an AF Form 1068, Work Center Analysis Record.

(a) Divide the computed allowed man-hours by the current military Man-Hour Availability Factor (MAF) to determine total requirements.

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

(c) The standard is valid through the man-hour range of 199.34 through 332.24. 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.

**6. Statement of Conditions:**

a. Normal hours of operation for this work center are 8 hours per day, 5 days per week.

b. Climatic Conditions:

(1) Temperature. Extreme hot or cold temperatures may cause an increase in maintenance time.

(2) Snow and Ice. Snow and ice causes certain tasks to be done more frequently.

(3) Precipitation. Rain and humidity impact the frequency of corrosion control performed on the equipment.

(4) Severe Weather. High winds, lightning, and thunderstorms may cause an increase in maintenance.

c. Physical Layout of Facilities. The work center itself is generally not located with the equipment it services. Travel time is necessary to accomplish direct categories of work. Climatic conditions may affect travel time.

d. Physical Condition of Facilities. The age of the equipment itself directly impacts the frequency of the unscheduled maintenance categories of work.

**7. Standard Manpower Table.** As two people are required to perform preventive maintenance, minimum manning of Y=2 is required as long as any one of the following pieces of equipment is maintained:

a. An Instrument Landing System.

b. A Tactical Air Navigation System.

c. A GMQ-20 Wind System.

d. A TMQ-11 Temperature Set.

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**3 Attachments**

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

**WORK CENTER DESCRIPTION****Meteorological-Navigational Aids Equipment Maintenance  
Combat Readiness Training Center (CRTC)****DIRECT:****1. EQUIPMENT PREVENTIVE MAINTENANCE:**

**1.1. REVIEWS SCHEDULE.** Obtains and reviews preventive maintenance schedule.

**1.2. PERFORMS PREVENTIVE MAINTENANCE.** Notifies appropriate agency; prepares material, technical data, tool(s), test equipment and vehicle; sets up test equipment; calibrates, cleans, services, inspects, performs corrosion control, and returns equipment to normal configuration; cleans work area; records data; notifies appropriate agency of completed action; returns material, technical data, tools, test equipment and vehicle; and completes maintenance records.

**1.2.1. PERFORMS PREVENTIVE MAINTENANCE ON TACTICAL AIR NAVIGATION SYSTEM.**

**1.2.2. PERFORMS PREVENTIVE MAINTENANCE ON VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE (VOR).**

**1.2.3. PERFORMS PREVENTIVE MAINTENANCE ON INSTRUMENT LANDING SYSTEM:**

**1.2.3.1. PERFORMS PREVENTIVE MAINTENANCE ON LOCALIZER.**

**1.2.3.2. PERFORMS PREVENTIVE MAINTENANCE ON GLIDE SLOPE.**

**1.2.3.3. PERFORMS PREVENTIVE MAINTENANCE ON MARKER BEACON.**

**1.2.3.4. PERFORMS PREVENTIVE MAINTENANCE ON REMOTE CONTROL INDICATOR (RCI).**

**1.2.4. PERFORMS PREVENTIVE MAINTENANCE ON LOW FREQUENCY BEACON.**

**1.2.5. PERFORMS PREVENTIVE MAINTENANCE ON WIND RECORDER.**

**1.2.6. PERFORMS PREVENTIVE MAINTENANCE ON VISIBILITY SET:**

**1.2.6.1. PERFORMS PREVENTIVE MAINTENANCE ON INDICATOR.**

**1.2.6.2. PERFORMS PREVENTIVE MAINTENANCE ON PROJECTOR/RECEIVER.**

**1.2.7. PERFORMS PREVENTIVE MAINTENANCE ON RUNWAY VISUAL RANGE (RVR) COMPUTER.**

**1.2.8. PERFORMS PREVENTIVE MAINTENANCE ON CLOUD HEIGHT SET:**

**1.2.8.1. PERFORMS PREVENTIVE MAINTENANCE ON INDICATOR.**

**1.2.8.2. PERFORMS PREVENTIVE MAINTENANCE ON PROJECTOR/DETECTOR.**

**1.2.9. PERFORMS PREVENTIVE MAINTENANCE ON WIND SPEED AND DIRECTION SET:**

**1.2.9.1. PERFORMS PREVENTIVE MAINTENANCE ON INDICATOR.**

**1.2.9.2. PERFORMS PREVENTIVE MAINTENANCE ON TRANSMITTER.**

**1.2.10. PERFORMS PREVENTIVE MAINTENANCE ON TEMPERATURE/DEW POINT SET.**

**1.2.11. PERFORMS PREVENTIVE MAINTENANCE ON DIGITAL BAROMETER.**

**1.2.12. PERFORMS PREVENTIVE MAINTENANCE ON RAWINSONDE SET.**

**1.2.13. PERFORMS PREVENTIVE MAINTENANCE ON FIELD TELEPHONE SET.**

**1.2.14. PERFORMS PREVENTIVE MAINTENANCE ON TACTICAL EQUIPMENT.**

**1.2.15. PERFORMS PREVENTIVE MAINTENANCE ON MINOR METEOROLOGICAL EQUIPMENT.**

**1.2.16. PERFORMS PREVENTIVE MAINTENANCE ON BAIL-OUT ALARM.**

**1.3. ASSISTS IN QUALITY CONTROL INSPECTION.** Assists in performing quality control inspection by providing technical assistance and performing tasks as necessary.

**1.3.1. ASSISTS IN TECHNICAL INSPECTION.**

**1.3.2. ASSISTS IN SPECIAL INSPECTION.**

**1.4. UPDATES EQUIPMENT STATUS.** Accomplishes Maintenance Data Collection (MDC), Equipment Status Reporting (ESR), and historical documentation; analyzes data for Facility Status Record; and fills out appropriate forms to indicate completed action.

## **2. EQUIPMENT REPAIR:**

**2.1. RECEIVES AND VERIFIES NOTIFICATION.** Acknowledges notification by phone, radio, or paging system, and queries individual for pertinent information.

**2.2. NOTIFIES APPROPRIATE AGENCY.** Notifies monitoring facility of arrival and initial assessment of problem.

**2.3. REPAIRS EQUIPMENT.** Prepares material, technical data, tools, and test equipment; sets up test equipment and troubleshoots to identify problem; obtains part, disassembles, cleans, and replaces defective part; tests and adjusts system; returns equipment to normal configuration; gathers tools, technical information, forms, and test equipment; cleans and stores tools, test equipment, and material; and completes maintenance records.

**2.3.1. REPAIRS TACAN SYSTEM.**

**2.3.2. REPAIRS VOR.**

**2.3.3. REPAIRS ILS:**

**2.3.3.1. REPAIRS LOCALIZER.**

**2.3.3.2. REPAIRS GLIDE SLOPE.**

**2.3.3.3. REPAIRS MARKER BEACON.**

**2.3.3.4. REPAIRS RCI.****2.3.4. REPAIRS LOW FREQUENCY BEACON.****2.3.5. REPAIRS WIND RECORDER.****2.3.6. REPAIRS VISIBILITY SET:****2.3.6.1. REPAIRS INDICATOR.****2.3.6.2. REPAIRS PROJECTOR/RECEIVER.****2.3.7. REPAIRS RVR COMPUTER.****2.3.8. REPAIRS CLOUD HEIGHT SET:****2.3.8.1. REPAIRS INDICATOR.****2.3.8.2. REPAIRS PROJECTOR/DETECTOR.****2.3.9. REPAIRS WIND SPEED AND DIRECTION SET:****2.3.9.1. REPAIRS INDICATOR.****2.3.9.2. REPAIRS TRANSMITTER.****2.3.10. REPAIRS TEMPERATURE/DEW POINT SET.****2.3.11. REPAIRS DIGITAL BAROMETER.****2.3.12. REPAIRS RAWINSONDE SET.****2.3.13. REPAIRS FIELD TELEPHONE SET.****2.3.14. REPAIRS TACTICAL EQUIPMENT.****2.3.15. REPAIRS MINOR METEOROLOGICAL EQUIPMENT.**

**2.4. REPAIRS CORROSION DAMAGE.** Prepares material, removes corrosion, and prepares surface for repainting, primes and paints; replaces gasket, applies protective coating/material, performs post maintenance action, and completes maintenance records.

**2.5. UPDATES EQUIPMENT STATUS.** Accomplishes MDC, ESR, and historical documentation; analyzes data for Facility Status Record; and fills out appropriate forms to indicate completed action.

**3. REPAIRS CYCLE ASSET MAINTENANCE:**

**3.1. PERFORMS MAINTENANCE ON DUE-IN-FROM-MAINTENANCE (DIFM) ASSET.** Reviews technical data; determines repair level; obtains tools, test equipment, and prepares work area. Troubleshoots DIFM asset to isolate malfunction of defective part, obtains part, replaces defective part, adjusts/aligns DIFM asset and performs serviceability check. Cleans work area, stores tools, test equipment and technical data; completes documentation; cleans, packs, and turns in DIFM asset supply.

**3.1.1. REPAIRS DIFM ASSET.****3.1.2. PERFORMS NOT REPAIRABLE THIS STATION ACTION.**

**3.2. PERFORMS FUNCTIONAL CHECK OF FORWARD SUPPLY POINT ASSET.** Notifies appropriate agency, obtains and reviews technical data, obtains tools; tests equipment and assembly, and prepares work area. Installs assembly, performs operational check, removes assembly, and restores equipment to operation. Cleans work area, stores tools, test equipment, and technical data, returns assembly to forward supply point, and completes documentation.

**4. SPECIAL MAINTENANCE:**

**4.1. PERFORMS EQUIPMENT MODIFICATION/TIME COMPLIANCE TECHNICAL ORDER.** Notifies appropriate agency; obtains and reviews directive; obtains test equipment, tools, material and vehicle; and prepares work area. Performs equipment modification, removes, aligns, adjusts, calibrates, lubricates and cleans; and accomplishes performance check. Notifies appropriate agency of completed action, returns material, technical data, tools, test equipment and vehicle, and completes documentation.

**4.2. ASSISTS VISITING TEAM.** Arranges for transportation, tests equipment, and equipment downtime. Provides escort, operations equipment, and assists in maintenance action. Documents visit, updates historical records, and accomplishes MDC.

**4.2.1. ASSISTS MAINTENANCE TEAM.****4.2.2. ASSISTS AIR TRAFFIC CONTROL AND LANDING SYSTEM EVALUATION TEAM.****5. REPLACEMENT PART ACQUISITION:**

**5.1. ORDERS EXPENDABLE PART.** Researches and orders parts associated with equipment preventive maintenance, equipment repair, equipment modification, and minor installation/removal.

**5.2. ORDERS REPAIR CYCLE ASSET.** Determines need and authorization, researches stock number or nomenclature, prepares justification, submits request, and takes follow-up action on supply level, DIFM, Maintenance Deficiency Report/Quality Deficiency Report, and receives or turns in equipment.

**6. AUXILIARY MAINTENANCE:**

**6.1. PERFORMS MINOR INSTALLATION/REMOVAL.** Receives and reviews job to determine job requirement; coordinates with and assists appropriate agency; obtains and reviews directive; obtains test equipment, tool(s), material, and spare parts; loads and unloads vehicle; and prepares work area. Installs applicable new equipment; removes and installs existing local unit level equipment; resets, aligns, adjusts, calibrates, lubricates, cleans, and accomplishes performance check. Coordinates with appropriate agency; cleans work area; loads and unloads vehicle; stores tools, material, technical data, and equipment; and completes documentation.

**6.2. ASSISTS CABLE MAINTENANCE.** Turns off equipment, isolates equipment from cable, assists in locating cable, escorts cable maintenance during maintenance, reconnects equipment, and performs functional check.

**6.3. ASSISTS AIRFIELD LIGHTING.** Turns off equipment, escorts airfield lighting personnel around equipment, and turns on equipment.

**6.4. ASSISTS BASE CIVIL ENGINEER.** Escorts civil engineering personnel during maintenance of towers, poles, grounding systems, and buildings.

**6.5. OPERATES BACKUP POWER SYSTEM.** Brings backup generator on-line during scheduled/unscheduled power outages or when thunderstorms are in the vicinity. Powers down generator and returns system to commercial power.

**6.6. MONITORS AUXILIARY POWER SOURCE TEST.** Notifies monitoring facility and Maintenance Control of anticipated action and requests equipment release; obtains and prepares vehicle; notifies monitoring facility of arrival; monitors equipment operation during civil engineering test and inspection; notifies monitoring facility of completed action; and returns and signs in vehicle.

## **7. EQUIPMENT EVALUATION AND CERTIFICATION:**

**7.1. NOTIFIES APPROPRIATE AGENCY.** Notifies monitoring facility of anticipated action.

**7.2. PREPARES MATERIAL.** Gathers tools, technical information, forms, and test equipment; obtains and prepares vehicle; and loads material onto vehicle.

**7.3. OPERATES EQUIPMENT FOR CERTIFICATION.** Unloads material from vehicle; notifies monitoring facility of arrival; sets up test equipment; brings equipment to on-line status; monitors, optimizes, and adjusts equipment during official certification; records appropriate information; returns equipment to normal configuration; and notifies monitoring facility of completed action.

**7.3.1. OPERATES TACAN SYSTEM.**

**7.3.2. OPERATES VOR.**

**7.3.3. OPERATES ILS:**

**7.3.3.1. OPERATES LOCALIZER.**

**7.3.3.2. OPERATES GLIDE SLOPE.**

**7.3.3.3. OPERATES MARKER BEACON.**

**7.4. RETRIEVES MATERIAL FOR EVALUATION AND CERTIFICATION.** Dismantles test equipment; gathers tools, technical information, forms, and test equipment; and loads material onto vehicle.

**7.5. RETURNS MATERIAL AFTER EVALUATION AND CERTIFICATION.** Unloads tools, technical information, forms, and test equipment; cleans and stores material; and returns/signs in vehicle.

**7.6. UPDATES EQUIPMENT STATUS FOR EQUIPMENT EVALUATION AND CERTIFICATION.** Notifies monitoring facility of completed action; accomplishes MDC, ESR, and historical documentation; analyzes data for facility status record; and fills out appropriate form to indicate completed action.

## **8. TRAVEL:**

**8.1. PERFORMS TRAVEL DURING NORMAL DUTY HOURS.** Performs travel to and from location of equipment requiring maintenance.

**8.2. PERFORMS TRAVEL IN RESPONSE TO NON-DUTY HOUR EQUIPMENT MALFUNCTION.**

Performs privately owned vehicle travel from domicile to place of duty to perform unscheduled maintenance after normal duty hours or on weekends and returns to domicile.

**9. SNOW AND ICE REMOVAL:**

**9.1. PREPARES MATERIAL.** Gathers necessary tools to remove snow and ice, obtains and prepares vehicles, and loads tools onto vehicle.

**9.2. NOTIFIES APPROPRIATE AGENCY.** Notifies monitoring facility and Maintenance Control of anticipated action and requests equipment release.

**9.3. REMOVES SNOW AND ICE.** Unloads tools from vehicle, notifies monitoring facility of arrival; shovels, brushes, and scrapes snow and ice from critical surfaces of, in, and around sensitive radar equipment; and notifies monitoring facility of completed action.

**9.4. RETRIEVES MATERIAL.** Gathers tools and loads onto vehicle.

**9.5. RETURNS MATERIAL.** Unloads tools, cleans and stores tools, returns to work center, and signs in vehicle.

**9.6. UPDATES EQUIPMENT STATUS.** Notifies Maintenance Control of completed action.

**INDIRECT:**

**II. SUPERVISION.**

**II.1. ADMINISTERS PERSONNEL:**

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

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

**II.1.3. RATES PERFORMANCE:**

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

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

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

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

**II.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 ROUTING 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.

**12.2.2. 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.

**12.3. MAINTAINS UNCLASSIFIED CORRESPONDENCE FILE:**

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

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

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

**12.3.4. 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.

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

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

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

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

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

**12.4. MAINTAINS CLASSIFIED MATERIAL:**

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

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

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

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

**12.5. MAINTAINS CENTRALIZED UNCLASSIFIED PUBLICATION FILE:**

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

**12.5.2. 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.

### **INSTRUCTIONS FOR COMPLETING APPLICATION WORKSHEET**

#### **PART 1. Equipment Equivalent Calculations:**

- a. Only assign equipment equivalent values to the equipment listed on the application worksheet.
- b. Quantity Assigned. Enter the quantity of each equipment end item for which you have maintenance responsibility. Count all applicable equipment maintained by the unit. Include those equipment systems at off-base locations. Use the following definitions to determine what constitutes an equipment system:
  - (1) VORTAC - Count as one TACAN and one VOR.
  - (2) ILS - Count one for each complete system. For example: one GRN-27 consists of one localizer, one glideslope, one far field monitor, and one remote status indicator.
  - (3) Weather Equipment may be categorized as single, dual, or multiple instrumentation. In these cases, base the quantity on the number of transmitter/projector and receiver combinations irrespective of the number of indicators. For example, a dually instrumented GMQ-32 usually consists of two projectors and receivers combinations feeding a single indicator - this would be counted as two systems. A dually instrumented GMQ-20 usually consists of two transmitters feeding several indicators - this would also be counted as two systems.
  - (4) Count the entire RVR-400 system as one.
  - (5) Count TMQ-15s only if in a fixed mode of operation (continuous usage).
- c. Obtain individual equipment equivalent totals by multiplying the quantity assigned by the appropriate equipment equivalent. The sum of the equivalent totals will be entered as  $X_1$  (total equipment equivalent value) in the standard equation.

#### **PART 2. Distance Calculations:**

- a. Measure the distance from the work center to the equipment maintained using the route normally traveled. Use vehicle odometer and record the one-way distance to the nearest tenth of a mile. Use the work center as the point of reference for each measurement. For ILS distance, include the distances from the work center to the localizer, work center to the glideslope, and work center to the far field monitor. For GMQ-13 and GMQ-32, count only the distance from the work center to the projector. For TMQ-11, FMQ-8, and GMQ-20, count the distance from the work center to the transmitter. When more than one of a particular equipment system is

maintained, sum the distances to each set. For example, for a dual GMQ-13, measure from the work center to one projector and enter the value under set #1. Then measure and record the distance to the other projector under set #2. Count the distance to the control tower only if you maintain equipment there, and count it only once even if you have more than one piece of equipment there. After obtaining the distances to each individual equipment system, sum horizontally to obtain the total distance for each equipment system, and sum vertically to obtain the total distance.

b. Double the total distance value to account for round trip travel and enter as  $X_2$  (distance) in the standard equation.

**PART 3. Man-Hour Computation:**

- a. Substitute the equipment equivalent total from part one for  $X_1$  in the standard equation.
- b. Substitute the total round trip distance from part two for  $X_2$  in the standard equation.
- c. Add the "A" value from the standard equation to determine the total computed man-hours from the basic standard.
- d. Add the constant man-hours for  $Y_2$ , Snow and Ice Removal.
- e. Combine the subtotals from 3a-d above to compute the total standard man-hours.
- f. Continue with the instructions outlined in the application instructions, paragraph 5c.

STANDARD MANPOWER TABLE										
WORK CENTER/FAC Meteorological - Navigational Aids Equipment Maintenance/FAC 2630VF				APPLICABILITY MAN-HOUR RANGE 199.34 - 332.24						
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT							
Meteorological and Navigational Sys	304X2	AGR	2	3						
<b>TOTAL</b>			<b>2</b>	<b>3</b>						
AIR FORCE SPECIALTY TITLE	AFSC	GRADE	MANPOWER REQUIREMENT							
<b>TOTAL</b>										

## STANDARD APPLICATION WORKSHEET

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

PREPARED BY: \_\_\_\_\_  
(NAME) (DSN)

## 1. EQUIPMENT EQUIVALENT CALCULATIONS:

NOTE: See definitions to determine quantity assigned.

<u>TYPE OF EQUIPMENT</u>	<u>QUANTITY ASSIGNED</u>		<u>EQUIPMENT VALUE</u>		<u>TOTAL</u>
TACAN:					
GRN-19/20	_____	x	1.7543	=	_____
FRN-45	_____	x	0.7809	=	_____
VOR:					
FRN-37	_____	x	1.5573	=	_____
FRN-44	_____	x	0.2454	=	_____
ILS:					
GRN-27	_____	x	2.4314	=	_____
GRN-29	_____	x	1.0000	=	_____
MARKER BEACON:					
GRN-28	_____	x	0.3146	=	_____
GRN-32	_____	x	0.3146	=	_____
LOW FREQ BEACON:					
URN-5	_____	x	0.5182	=	_____
TRANSMISSOMETER:					
GMQ-32	_____	x	0.2715	=	_____
RVR COMPUTER:					
FMN-1	_____	x	0.1490	=	_____
RVR-400	_____	x	0.4982	=	_____
CEILOMETER:					
GMQ-13 w/IP-1456	_____	x	0.2936	=	_____
GMQ-13	_____	x	0.4159	=	_____
WIND SET:					
GMQ-20	_____	x	0.2637	=	_____
RSU WINDS	_____	x	0.1145	=	_____
TMQ-15 (FIXED	_____	x	0.1614	=	_____
TEMPERATURE SET:					
TMQ-11	_____	x	0.4053	=	_____
FMQ-8	_____	x	0.1931	=	_____
DBASI:					
ML-658	_____	x	0.0405	=	_____
RAWINSONDE SET:					
GMD-5	_____	x	0.6208	=	_____
<b>EQUIPMENT EQUIVALENT TOTAL</b>				<b>=</b>	_____

**2. ON-BASE DISTANCE CALCULATIONS:**

NOTE: Do not include travel to those sites defined as "off-base."

	SET #1	SET #2	SET #3	SET #4	TOTAL
TACAN	_____	_____	_____	_____	_____
VOR	_____	_____	_____	_____	_____
LOCALIZER	_____	_____	_____	_____	_____
GLIDESLOPE	_____	_____	_____	_____	_____
FAR FIELD MONITOR	_____	_____	_____	_____	_____
MARKER BEACON	_____	_____	_____	_____	_____
URN-5	_____	_____	_____	_____	_____
GMQ-32	_____	_____	_____	_____	_____
RVR COMPUTER	_____	_____	_____	_____	_____
GMQ-13	_____	_____	_____	_____	_____
GMQ-20	_____	_____	_____	_____	_____
RSU WINDS	_____	_____	_____	_____	_____
TMQ-15 (FIXED)	_____	_____	_____	_____	_____
TEMPERATURE SET	_____	_____	_____	_____	_____
ML-658	_____	_____	_____	_____	_____
GMD-5	_____	_____	_____	_____	_____
CONTROL TOWER	_____	_____	_____	_____	_____
				<b>TOTAL DISTANCE</b>	_____
				<b>TOTAL ROUND TRIP DISTANCE (Total Distance x 2)</b>	_____

**3. MAN-HOUR COMPUTATIONS:**

a.  $Y_1 = -1.580 + 67.49X_1 + 1.321X_2$ :

(1)  $X_1$  = An Equipment Equivalent:

Equipment Equivalent Total = \_\_\_\_\_ x 67.49 = \_\_\_\_\_

(2)  $X_2$  = Distance:

Total Round Trip Distance = \_\_\_\_\_ x 1.321 = \_\_\_\_\_

(3) Plus "A" Value from  $Y_1$  Equation = -1.580

b.  $Y_2 = 8.38$  (Constant Man-Hours) = 8.38

c.  $Y_3 = 6.03$  (Constant Man-Hours) = 6.03

d. Total Allowed Man-Hours = \_\_\_\_\_