U. S. DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD CG-3303C (Rev. 06-2005)	**RECORD OF ENLISTED PERFORMANCE QUALIFICATIONS ELECTRONICS TECHNICIAN (ET)**

INSTRUCTIONS

Record of Enlisted Performance Qualifications (EPQ) shall be completed for enlisted personnel of the Coast Guard as outlined in the Enlisted Performance Qualifications Manual, COMDTINST M1414.8 (series). Personnel are required to demonstrate proficiency in all performance qualifications for the next higher pay grade prior to completion of applicable rate training course materials for advancement. As proficiency in each performance qualification is demonstrated by actually performing the task listed, the DATE and INITIALS column shall be completed by a designated supervisor (E-5 or above), preferably of the same rating specialty. Form CG-3303C becomes official documentation to be kept in the member's Personnel Data Record (PDR) denoting eligibility for administration of the rating End of Course Test (EOCT) and, if applicable, participation in a Service Wide Exam competition (SWE). Some EPQ include Supervisory Guidelines (SupGuide) which will assist in clarifying the intent and proper execution of the task that is to be performed. Personnel are reminded that although demonstration and sign-off of any new EPQ at or below the current pay grade are not required for advancement, the EPQ will be used to develop course material and SWE questions. It is the member's responsibility to be proficient in all currently published performance qualifications, up to and including those of their present pay grade for their specific rating to facilitate the mentoring of junior personnel in their charge.

Performance Qualifications numbering system: Example **5.A.01**

- The number **5** indicates an E-5 level qualification requirement.
- The letter **A** indicates the subject section within the qualification requirements.
- The sequence number **01** indicates the 1st qualification within the subject section.

Rating courses are developed using reference material denoting official policy and technical standards. Reference material is generally incorporated into lessons at an adequate level to complete the course. If more guidance is required, or should further study be desired, reference material is available online through the Coast Guard Directives System website accessible at http://www.uscg.mil/ccs/cit/cim/directives/welcome.htm. Other reference material supporting the EPQ may also be obtained from the unit's library, TRACEN course writers, CG Institute, or other government sources. A reference material list is located at the end of this document. If any reference material is found to be in contradiction the cited Coast Guard reference shall take precedence.

The Rating Force Master Chief of this occupational specialty is the primary proprietor of these EPQ. The most up to date revisions are available on the CG-Central website, My Workspace : Career Management : Enlisted : My Ratings, located at http://cgcentral.uscg.mil or on the Office of Training, Workforce Performance and Development (CG-132) website located at http://www.uscg.mil/hq/g-w/g-wt/g-wtt/g-wtt-2/trapol/quals.htm. EPQ copies are also available from the unit's Education Services Officer (ESO) or Career Development Advisor (CDA).

If members have completed tasks on the previous edition of the EPQ that cross-reference then supervisor signatures should be transferred for those completed tasks to this new edition.

SUMMARY OF CHANGES: EPQs consolidated to include training in both navigation and communication systems. Previous task statements listed individually by specific equipment models have been re-itemized by equipment type enabling on-the-job-training (OJT) opportunities in support of C3 systems.

RATING	ABBREVIATION
ELECTRONICS TECHNICIAN (Effective for the NOV 2006 Active Duty and the OCT 2006 Reserve SWE)	**ET**

DATE COMPLETED ALL PERFORMANCE QUALIFICATIONS FOR RATE LEVEL

E-4	**E-5**	**E-6**
E-7	**E-8**	**E-9**

NAME *(Last, First, Middle Initial)*	EMPLID NUMBER

SUPERVISOR VERIFICATION

DATE	NAME/SIGNATURE	INITIALS	RATE	UNIT

REMARKS

Date: _____

I certify that the person named below has satisfactorily completed all rate related course work and Enlisted Performance Qualifications (EPQ) for pay grade E-_____ and is eligible to take the end of course test (EOCT).

_____
Leading Chief / Division Officer or Dept. Head

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

A. MAINTENANCE & ADMINISTRATION

4.A.01 OBTAIN parts and assemblies from inventory using unit inventory management system per the Supply Procedures Manual, COMDTINST M4400.19 (series); the CMPlus User's Guide; and MICA.

SupGuide: *The technician must be able to access the CMPlus system, locate the required part or assembly, verify the correct part listing, identify storage location, and quantity available. The technician must be able to retrieve the part from storage, verify correct, and make entries into CMPlus to subtract part from inventory.*

5.A.01 PROCURE spare parts, modules, and maintenance supplies using federal and commercial sources per the Simplified Acquisitions Procedures Handbook, COMDTINST M4200.13 (series); the Supply Policy and Procedures Manual, COMDTINST M4400.19 (series); ELC Support Gram http://cgweb.elcbalt.uscg.mil/sptgram/Default.htm and the CMPlus User's Guide.

5.A.02 SCHEDULE unit test equipment for calibration per the Electronics Manual, COMDTINST M10550.25 (series); the CMPlus User's Guide; and applicable MLC Standard Operating Procedures (SOP).

SupGuide: *Understand the requirements for calibrating test equipment and schedule development to meet calibration requirements and avoid equipment use conflicts.*

5.A.03 REPORT an equipment casualty per Operational Reports, NWP 1-03-1; Casualty Reporting (CASREP) Procedures (Materiel), COMDTINST M3501.3 (series); and MLC Standard Operating Procedures (SOP).

5.A.04 SUBMIT form OPNAV 4790C/K to document an electronics equipment configuration change per the Electronics Manual, COMDTINST M10550.25 (series); Supply Policy and Procedures Manual (SPPM), COMDTINST M4400.19 (series); and/or the 3M Manual, OPNAVINST 4790.4 (series).

5.A.05 INSTALL a Field Change/ORDALT to an electronics equipment and/or system per the Electronics Manual, COMDTINST M10550.25 (series); Ordnance Manual, COMDTINST 8000.2 (series); and Navy Electronics Installation and Maintenance Book, General Maintenance, NAVSEA SE000-00-EIM-160.

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

5.A.06 EVALUATE the installation of an electronics equipment and/or system per the installation documentation (e.g. Engineering Change); the Electronics Manual, COMDTINST M10500.25 (series); and the Navy Electronics Installation and Maintenance Book, NAVSEA SE000-00-EIM-160.

SupGuide: *The technician will inspect a contracted equipment installation for compliance with established installation procedures and ensure equipment operates to prescribed standards.*

6.A.01 VERIFY the unit's Coast Guard Planned Maintenance System (CGPMS) is accurate per the Electronics Manual, COMDTINST M10550.25 (series); Ordnance Manual, COMDTINST 8000.2 (series); Ship's Maintenance and Material Management (3M) Manual, OPNAVINST 4790.4 (series); and the CGPMS User's Guide.

6.A.02 SUBMIT a feedback report (FBR) to correct a deficiency in CGPMS as per the CGPMS User's Guide and the Electronics Manual, COMDTINST M10550.25 (series) or the 3M Manual, OPNAVINST 4790.4 (series).

6.A.03 DEVELOP a unit PMS schedule for all equipment for at least one quarter per the Electronics Manual, COMDTINST M10550.25 (series); Ordnance Manual, COMDTINST 8000.2 (series); Ship's Maintenance and Material Management (3M) Manual, OPNAVINST 4790.4 (series); and the CGPMS User's Guide.

6.A.04 RECORD maintenance actions (completed and deferred) into unit work management system per the Electronics Manual, COMDTINST M10550.25 (series); Ordnance Manual, COMDTINST M8000.2 (series); and the CMPlus Users Guide.

6.A.05 PROCURE Navy Publications and Directives per Electronics Manual, COMDTINST M10550.25 (series); Supply Procedures Manual CIM4400.19 (series); and the Navy NAVSUP website available at http://www.nll.navsup.navy.mil.

6.A.06 AUDIT Safety Lock-Out/Tag-Out Log per Electronics Manual, COMDTINST M10550.25 (series); and Equipment Tag-Out Procedures, COMDTINST 9077.1 (series).

6.A.07 AUDIT spare parts and modules inventory authorized by the MICA/CALMS per the Supply Procedures Manual, COMDTINST M4400.19 (series); and the CMPlus User's Guide.

6.A.08 UPDATE ship's/unit's drawings and blueprints to match as-built configuration per the Naval Engineering Manual, COMDTINST 9000.6 (series) or Civil Engineering Manual, COMDTINST M11000.11 (series); and applicable MLC Standard Operating Procedures (SOP).

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

6.A.09 INSPECT electronic systems for Electro-Magnetic Interference (EMI) hazards as per Standard Practice for Shipboard Bonding, Grounding & Other Techniques for Electro-Magnetic Compatibility & Safety, MIL-STD-1310G; and Navy Electronics Installation and Maintenance Book, EMI Reduction, NAVSEA SE000-00-EIM-150.

6. A.10 VERIFY the installation of an electronics equipment and/or system per the installation documentation (e.g. Engineering Change); per the Electronics Manual, COMDTINST M10500.25 (series); and the Navy Electronics Installation and Maintenance Book, NAVSEA SE000-00-EIM-160.

SupGuide: *The supervisor will ensure that all installation configuration data was properly documented and submitted to proper authorities.*

6.A.11 VERIFY the installation of a Field Change/ORDALT to an electronics equipment and/or system per the Field Change/ORDALT documentation; per the Electronics Manual, COMDTINST M10500.25 (series); Ordnance Manual, COMDTINST 8000.2 (series); and the Navy Electronics Installation and Maintenance Book, NAVSEA SE000-00-EIM-160.

7.A.01 INSPECT antenna tower per the Electronics Manual, COMDTINST M10550.25 (series); Tower Manual, COMDTINST M11000.4 (series); and Civil Engineering Manual, COMDTINST M11000.11 (series).

7.A.02 SCHEDULE a system groom/inspection/tech assist coordinating availability of personnel, equipment and power systems as per the Electronics Manual, COMDTINST M10550.25 (series).

7.A.03 REVIEW the results from a technical groom or other system-wide maintenance evolution and develop a work action plan from the results per the Electronics Manual, COMDTINST M10550.25 (series).

SupGuide: *Review the results from a groom or other system wide evaluation to establish that all supported electronic systems are operating within prescribed specifications and requirements. Initiate any required actions to repair/replace those systems not meeting specifications.*

8.A.01 DEVELOP an Engineering Change Request (ECR) per the Electronics Manual, COMDTINST M10550.25 (series); Naval Engineering Manual, COMDTINST M9000.6 (series); and applicable MLC Standard Operating Procedures (SOP).

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

B. PERFORMANCE & TRAINING

5.B.01 TRAIN personnel in applicable safety procedures for working in and around installed electronics equipment per the Electronics Manual, M10550.25 (series); and the Training and Education Manual, COMDTINST M1500.10 (series).

5.B.02 TRAIN personnel in radio frequency (RF) Hazards of Electro-Magnetic Radiation to Personnel (HERP) per the Electronics Manual, COMDTINST M10550.25 (series); and Navy Electronics Installation and Maintenance Book, General, NAVSEA SE000-00-EIM-100.

5.B.03 TRAIN electronics personnel in operating General Purpose Electronics Test Equipment (GPETE) per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Test Equipment, NAVSEA SE000-00-EIM-040; and the manufacturer's technical manual.

5.B.04 TRAIN personnel in operations of Special Purpose Test Equipment (SPETE) per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Test Equipment, NAVSEA SE000-00-EIM-040; and the manufacturer's technical manual.

5.B.05 TRAIN personnel in operation and maintenance of assigned electronic systems per the Electronics Manual, COMDTINST M10550.25 (series); Ordnance Manual, COMDTINST 8000.2 (series); CGPMS; and the equipment technical manuals.

SupGuide: *Cross-train personnel. Provide instruction, formal or OJT, to electronics personnel on the maintenance and operation of assigned electronics equipment/systems to assist or assume maintenance and repair responsibilities.*

7.B.01 PREPARE an annual training plan per the Electronics Manual, COMDTINST M10550.25 (series); Training and Education Manual, COMDTINST M1500.10 (series); and/or the Cutter Training and Qualification Manual, COMDTINST M3502.4 (series).

SupGuide: *Understand the requirements for training, the various topics that are required or should be covered and dealing with scheduling conflicts.*

7.B.02 TRAIN electronics personnel in Coast Guard electronics/ordnance administration and supply procedures per the Electronics Manual, COMDTINST M10550.25 (series); Ordnance Manual, COMDTINST M8000.2 (series); Supply Policy and Procedures Manual (SPPM), COMDTINST M4400.19 (series); and ELC Support Grams.

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

C. SPECIAL & EMERGENCY PROCEDURES

4.C.01 DEMONSTRATE the procedures for extinguishing an electrical fire per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, General, NAVSEA SE000-00-EIM-100.

4.C.02 DEMONSTRATE the procedure for rescuing an electric shock victim from an energized circuit as required by the Electronics Manual, COMDTINST M10550.25 (series); and Navy Electronics Installation and Maintenance Book, General, NAVSEA SE000-00-EIM-100.

4.C.03 DEMONSTRATE the procedure for performing Cardio-Pulmonary Resuscitation (CPR) per the Electronics Manual, COMDTINST M10550.25 (series); American Heart Association and/or American Red Cross guidelines.

4.C.04 DEMONSTRATE Lock-Out/Tag-Out procedures for electronics/electrical equipment for maintenance and/or repair as required in the Electronics Manual, COMDTINST M10550.25 (series); Ordnance Manual, COMDTINST M8000.2 (series); and Equipment Tag-Out Procedures, COMDTINST 9077.1 (series).

SupGuide: *The technician must demonstrate the proper procedure for determining the need to tag-out and tag-in equipment or circuits and properly tag-out/tag-in as required. The technician must complete the process observing all safety and procedural requirements.*

4.C.05 DEMONSTRATE procedures for working aloft, including harness and safety line inspection, wearing of safety harness and head protection and hazards posed by stack gasses or RF radiation sources as required by the Electronics Manual, COMDTINST M10550.25 (series); and the Tower Manual, COMDTINST M11000.4 (series).

SupGuide: *The technician must identify equipment required to go aloft, safety procedures to follow, and permissions required. Technician must conduct a safety check of all equipment and demonstrate the proper procedure for wearing and using.*

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

4.C.06 DEMONSTRATE the procedures to test high voltage gloves per the Electronics Manual, COMDTINST M10550.25 (series); and Navy Electronics Installation and Maintenance Book, General, NAVSEA SE000-00-EIM-100.

SupGuide: *The technician must state the inspection requirements and demonstrate the proper procedure for testing high voltage gloves and shells.*

4.C.07 DEMONSTRATE the procedures to measure a voltage in excess of 300V per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Test Methods & Practices, NAVSEA SE000-00-EIM-130; and the equipment technical manual.

SupGuide: *The technician must demonstrate the proper procedure for measuring a voltage in excess of 300 V. The technician must complete the process observing all safety and procedural requirements.*

4.C.08 DISCHARGE de-energized high voltage circuits per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Test Methods & Practices, NAVSEA SE000-00-EIM-130; and the equipment technical manual.

5.C.01 INSPECT electronics equipment spaces to ensure required warning signs are posted per the Electronics Manual, COMDTINST M10550.25 (series).

Signs include, but are not limited to:

- RF Radiation Hazard
- High Voltage Warning
- Shock Hazard Warning
- CPR Procedures
- Multiple Power Sources
- Permissible RF exposure areas
- Toxic Gas warning
- Hearing Protection requirements

SupGuide: *Understand why and where signs are required, ensure that signs are posted for the safety of all personnel, and take actions required to correct any discrepancies.*

5.C.02 DEMONSTRATE the destruction of documents and equipment as required in the Classified Information Management Program, COMDTINST M5510.23 (series) and unit emergency destruction plan.

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

5.C.03 DEMONSTRATE safety precautions required to eliminate/limit exposure to radio frequency (RF) radiation per the Electronics Manual, COMDTINST M10550.25 (series); and Enclosures four, five, six and seven of DODINST 6055.11 "Protection of DoD Personnel from Exposure to Radio Frequency Radiation and Military Exempt Lasers".

***SupGuide**: Technician understands the sources of RF hazards, exposure limitation methods, physical hazards associated with exposure, and permissible exposure limits to RF radiation.*

D. ELECTRONIC INSTALLATION STANDARDS

4.D.01 WEATHERPROOF an exposed connector per the Navy Installation and Maintenance Book, Installation Standards, NAVSEA SE000-00-EIM-110.

4.D.02 INSTALL the following coaxial cable connectors per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Installation Standards, SE000-00-EIM-110; and manufacturer's guidelines.

- PL-259
- N-type
- BNC
- TNC
- Mini-UHF

4.D.03 INSTALL multiple conductor cable connectors per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Installation Standards, SE000-00-EIM-110; and manufacturer's guidelines.

4.D.04 INSTALL stranded/solid single wire connector per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Installation Standards, SE000-00-EIM-110; and manufacturer's guidelines.

5.D.01 TRACE a point-to-point connection through multiple compartments using cable tags, unit drawings or ship's COEDS per the Electronics Manual, COMDTINST M10550.25 (series); and Navy Electronics Installation and Maintenance Book, Installation Standards, SE000-00-EIM-110.

5.D.02 EVALUATE coaxial cable per the Electronics Manual, COMDTINST M10550.25 (series); and Navy Electronics Installation and Maintenance Book, Installation Standards, SE000-00-EIM-110.

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

5.D.03 MAINTAIN fault protection, lightning protection, and signal reference ground subsystems per the Electronics Manual, COMDTINST M10550.25 (series); Standard Practice for Shipboard Bonding, Grounding, and other Techniques for Electro-Magnetic Compatibility and Safety, MIL-STD-1310G; Grounding, Bonding and Shielding for Common Long haul/Tactical Communications Systems Including Ground Based Communications-Electronics Facilities and Equipment, MIL-STD-188-124B; and Grounding, Bonding, & Shielding for Electronic Equipment & Facilities, MIL-HDBK-419A.

SupGuide: *Understand the purpose and operation of protection circuits. Ensure that power protection circuits are installed and working to protect equipment from power surges and sags in the power system and power surges (lightning) through external wiring and antennas.*

5.D.04 EVALUATE multiple conductor cable per the Electronics Manual, COMDTINST M10550.25 (series); and Navy Electronics Installation and Maintenance Book, Installation Standards, SE000-00-EIM-110.

5.D.05 INSTALL cabling through multi-cable transits (e.g. Rox/Nelson) per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Installation Standards, SE000-00-EIM-110; and manufacturer's guidelines.

5.D.06 INSTALL Heliax cable connector per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Installation Standards, SE000-00-EIM-110; and manufacturer's guidelines.

5.D.07 EVALUATE Heliax cables per the Electronics Manual, COMDTINST M10550.25 (series); Navy Electronics Installation and Maintenance Book, Installation Standards, SE000-00-EIM-110; and manufacturer's guidelines.

E. ELECTRONIC SYSTEMS

4.E.01 PERFORM planned maintenance on a VHF transceiver per CGPMS; Navy Electronics Installation and Maintenance Book, Test Methods & Practices, SE000-00-EIM-130; and the manufacturer's technical manual.

4.E.02 PERFORM corrective maintenance on a VHF transceiver per Navy Electronics Installation and Maintenance Book, General Maintenance, SE000-00-EIM-160; and Test Methods & Practices, SE000-00-EIM-130; the manufacturer's technical manual; and MICA.

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

4.E.03 PROGRAM VHF radios using appropriate software as per TISCOM SMEF Advisories available on the TISCOM website http://cgweb.tiscom.uscg.mil/ and equipment technical manuals.

4.E.04 PERFORM planned maintenance on a HF transceiver per CGPMS; Navy Electronics Installation and Maintenance Book, Test Methods & Practices, SE000-00-EIM-130; and the manufacturer's technical manual.

4.E.05 PERFORM corrective maintenance on a HF transceiver per Navy Electronics Installation and Maintenance Book, General Maintenance, SE000-00-EIM-160; and Test Methods & Practices, SE000-00-EIM-130; the manufacturer's technical manual; and MICA.

4.E.06 PERFORM planned maintenance on an unloaded antenna system per CGPMS; Navy Electronics Installation and Maintenance Book, General Maintenance, SE000-00-EIM-160; Test Methods & Practices, SE000-00-EIM-130; and the manufacturer's technical manual.

4.E.07 PERFORM corrective maintenance on a unloaded antenna system per Navy Electronics Installation and Maintenance Book, General Maintenance, SE000-00-EIM-160; and Test Methods & Practices, SE000-00-EIM-130; the manufacturer's technical manual; and MICA.

4.E.08 PERFORM planned maintenance on a loaded antenna system per CGPMS; Navy Electronics Installation and Maintenance Book, Test Methods & Practices, SE000-00-EIM-130; and the manufacturer's technical manual.

4.E.09 PERFORM corrective maintenance on a loaded antenna system per Navy Electronics Installation and Maintenance Book, General Maintenance, SE000-00-EIM-160; and Test Methods & Practices, SE000-00-EIM-130; the manufacturer's technical manual; and MICA.

4.E.10 PERFORM planned maintenance on a direction finder system per CGPMS; Navy Electronics Installation and Maintenance Book, Test Methods & Practices, SE000-00-EIM-130; and the manufacturer's technical manual.

4.E.11 PERFORM corrective maintenance on a direction finder system per Navy Electronics Installation and Maintenance Book, General Maintenance, SE000-00-EIM-160; and Test Methods & Practices, SE000-00-EIM-130; the manufacturer's technical manual; and MICA.

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

RATING: ELECTRONICS TECHNICIAN	INIT	DATE

4.E.12 PERFORM planned maintenance on a depth sounding system per CGPMS; Navy Electronics Installation and Maintenance Book, Test Methods & Practices, SE000-00-EIM-130; and the manufacturer's technical manual.

4.E.13 PERFORM corrective maintenance on a depth sounding system per Navy Electronics Installation and Maintenance Book, General Maintenance, SE000-00-EIM-160; and Test Methods & Practices, SE000-00-EIM-130; the manufacturer's technical manual; and MICA.

4.E.14 PERFORM planned maintenance on a DGPS or GPS receiver per CGPMS; Navy Electronics Installation and Maintenance Book, Test Methods & Practices, SE000-00-EIM-130; and the manufacturer's technical manual.

4.E.15 PERFORM corrective maintenance on a DGPS or GPS receiver per Navy Electronics Installation and Maintenance Book, General Maintenance, SE000-00-EIM-160; and Test Methods & Practices, SE000-00-EIM-130; the manufacturer's technical manual; and MICA.

4.E.16 PERFORM planned maintenance on a small boat radar system per CGPMS; Navy Electronics Installation and Maintenance Book, Test Methods & Practices, SE000-00-EIM-130; and the manufacturer's technical manual.

4.E.17 PERFORM corrective maintenance on a small boat radar system per Navy Electronics Installation and Maintenance Book, General Maintenance, SE000-00-EIM-160; and Test Methods & Practices, SE000-00-EIM-130; the manufacturer's technical manual; and MICA.

--END of EPQ--

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

Glossary

AUDIT: Physically sight and count a random selection of supplies or property and document the results; verify accuracy of documentation.

CALMS: Combined Allowance for Logistics & Maintenance Support.

CGPMS: Coast Guard Planned Maintenance System (CGPMS).

CMPlus: Configuration Management Plus; equipment maintenance and supply system software.

DEMONSTRATE: To show proficiency in accomplishing a task by simulation or actual performance without actual follow through due to safety or efficiency consequences. (Examples: Cardio-Pulmonary Resuscitation - CPR).

DEVELOP: Determine requirements from directives issued by competent authority, establish local requirements, and prepare a directive for compliance.

DISCHARGE: to dissipate life-threatening voltages using a shorting probe.

ECR: Engineering Change Request (ECR).

EVALUATE: Determine the status of an assembly, equipment, or system by comparing the results of tests, inspections, or other measurements to design specifications or established requirements.

INSPECT: Examine, test, measure, or evaluate people, spaces or equipment for installation, operation, and performance in accordance with established standards, specifications, drawings, technical manuals, directives, policies or other requirements.

INSTALL: Place a new or modified system or equipment and/or software in service in accordance with established procedures, standards, specifications, drawings, directives, and policies.

MAINTAIN: All activities that upkeep operational readiness of electronic equipment or systems. All activities that serve to increase the mean time between failure (MTBF) and/or decrease the total time inoperative (TTI) of electronic equipment or systems.

MICA: Management Information for Configuration and Allowances, an inventory record system (MICA)

NIMB: Navy Installation and Maintenance Book (NIMB).

OBTAIN: To acquire an item or information.

ORDALT: Ordnance alteration, a change to a weapons system equipment configuration.

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

PERFORM: To begin a task and carry through to completion in accordance with applicable instructions and regulations.

PREPARE: Plan, gather, and assemble resources.

PROCURE: To acquire a required item through an authorized process.

PROGRAM: To change equipment function or features via software.

RECORD: To document required information in a record book, database, or other application for later retrieval and review.

REPORT: To gather data and provide information in a defined format for an event.

REVIEW: To examine a document or process for accuracy in content and/or format and report errors, updates, or corrections to the author or controlling authority.

SCHEDULE: To develop a plan (based on time) for allocating resources, people and equipment, and establish a timeline to accomplish assigned tasks.

SMEF: Systems Management and Engineering Facilities (SMEF).

SOP: Standard Operating Procedures (SOP).

SUBMIT: To prepare a report or form following a defined process then forwarding to a prescribed authority.

TISCOM: Telecommunications and Information Systems Command (TISCOM).

TRACE: To physically identify and follow from one termination point to another.

TRAIN: Convey knowledge, demonstrate skills; and measure the transfer of those skills and knowledge using a defined lesson plan and methodology.

TROUBLESHOOT: To identify a failure at the lowest repairable level in a system or equipment following a logical step-wise process.

UPDATE: Change existing information or records to accurately align with correct or most recent data.

VERIFY: To determine the accuracy of recorded information by comparing to physical evidence.

WEATHERPROOF: Protect from external environmental elements, usually with dielectric tape and/or applied conformal coating.

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

MAINTENANCE PHILOSOPHY CONSIDERATIONS

This is a “definition” of what is expected from each level of technician when applying the level of competence determination to successfully complete a performance based qualification.

ET3: Can configure from directions/job aid and perform basic operations on trained equipment. Can perform Planned Maintenance, minor troubleshooting, and minor corrective maintenance on trained systems as part of a team under direct supervision of a Journeyman or Master technician. Can locate and use standard hand tools, test equipment, and supplies.

ET2: In addition to the ET3 requirements, the ET2 should be able to perform installations, modifications, and removals of electronics equipment. Can document equipment capabilities and operations. Can procure standard supplies and parts. Can work independently on assigned tasks with limited supervision, provides one-on-one supervision of apprentice technicians and small teams. Can provide technical training on installed equipment.

ET1: All the above AND Supervision of teams of both apprentice and Journeyman technicians (multiple). Can develop maintenance scheduling, establish equipment requirements, and develop installation, modification, removal plans. Can initiate tasking and work independently without supervision. Can provide training on Coast Guard processes/procedures.

ETC: All the above AND Budget Development and Management, Training Management, Identifying Equipment Requirements, Liaison with outside entities on Technical Issues, Local Level Project Management, Contracting, Development of Equipment Changes.

ETCS/ETCM: All the above AND Supervision within remote AOR, Multi-Unit Budget Development, Multi-Unit Training Requirements, Multi-Unit Project Management, "All" aspects of career mentoring to people in and out of rating, Liaison with Management (Officers) CG wide, on technical and personnel issues.

NAME *(Last, First, Middle Initial)*	**EMPLID NUMBER**

TECHNICAL REFERENCE LIBRARY FOR ELECTRONICS TECHNICIANS

References cited in the qualifications (hyperlinks provided where available).

> CMPlus User Manual
> MICA User's Guide
> Naval Engineering Manual, COMDTINST 9000.6 (series)
> Civil Engineering Manual, COMDINST M11000.11 (series)
> Operational Reports, NWP 1-03-1
> Casualty Reporting (CASREP) Procedures (Materiel), COMDTINST M3501.3 (series)
> Electronics Manual, COMDTINST M10550.25 (series)
> Coast Guard Simplified Acquisitions Procedures Handbook, COMDTINST M4200.13 (series)
> Supply Policy and Procedures Manual (SPPM), COMDTINST M4400.19 (series)
> Engineering Logistics Center (ELC) Support Grams
> 3M manual, OPNAVINST 4790.4 (series)
> Directives, Publications, & Reports Index, COMDTNOTE 5600
> Accounting Manual, COMDTINST M7300.4 (series), Part II
> Protection of DoD Personnel from Exposure to Radiofrequency Radiation and Military Exempt Lasers, DODINST 6055.11, encl. 4, 5, 6, 7
> Training and Education Manual, COMDTINST M1500.10 (series)
> Cutter Training and Qualification Manual, COMDTINST M3502.4 (series)
> Ordnance Manual, COMDTINST M8000.2 (series)
> Electro-Magnetic Radiation Hazards (Hazards to Ordnance), OP 3565, Vol 2.
> Enlisted Qualification Codes Manual, COMDTINST M1414.9 (series)
> Enlisted Performance Qualifications Manual, COMDTINST M1414.8 (series)
> Staffing Standards Manual, COMDTINST M5312.11 (series)
> Commandant's Quality Award Guidebook
> Coast Guard Measurement Strategy and Responsibilities, COMDTINST 5224.9 (series)
> Acquisition and Management of Integrated Logistics Support for Coast Guard
> American Heart Association - CPR
> Equipment Tag-Out Procedures, COMDTINST 9077.1 (series)
> Hazard Communication of Workplace Materials, COMDTINST M6260.21 (series)
> Hazardous Waste Management Manual, COMDTINST 16478.1 (series)
> Navy Installation and Maintenance book General Maintenance book (NAVSEA SE000-00-EIM-160, EIMB – General Maintenance http://cgweb.lant.uscg.mil/ESDPORTSMOUTH/USN.EIMB.htm
> System Integrated Logistics Support (SILS) Policy Manual, COMDTINST M4105.8 (series)
> Navy NAVSUP website available at http://www.nll.navsup.navy.mil

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> Hazardous Materials Management Manual, COMDTINST M16478.1 (series)
> Standard Practice for Shipboard Bonding, Grounding & Other Techniques for Electro-Magnetic Compatibility & Safety, MIL-STD-1310G
> Grounding Bonding and Shielding for Common Long haul/Tactical Communications Systems Including Ground Based Communications-Electronics Facilities and Equipment, MIL-STD-188-124B
Grounding, Bonding, & Shielding for Electronic Equipment & Facilities, MIL-HDBK-419A, Vols. 1 & 2

Other Publications of Interest

Systems Times www.uscg.mil/systems/library/systimes/systemstimes.htm
Electronics Materiel Identification Manual, COMTINST M4410.5 (series)
One technical manual for each item of test equipment.
Two technical manuals for each assigned equipment.
National Electric Code, NFPA 70
National Lighting Code, NFPA 78
Shrader's Electronic Communications, McGraw Hill, ISBN: 0070571384
Electronics Installation and Maintenance Books (EIMB), NAVSEA SE000-00-EIM-xxx

- General Handbook
- Installation Standards Handbook
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