

U.S. Department of
Homeland Security

United States
Coast Guard



Electronics Technician Second Class PERFORMANCE QUALIFICATION CERTIFICATION GUIDE (PQG)



U.S. Coast Guard
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ELECTRONICS TECHNICIAN SECOND CLASS PERFORMANCE QUALIFICATION CERTIFICATION GUIDE

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Training Center
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QUESTIONS ABOUT THIS TEXT SHOULD BE
ADDRESSED TO THE SUBJECT MATTER SPECIALIST
FOR THE ELECTRONICS TECHNICIAN RATING.

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TABLE OF CONTENTS

TITLE	PAGE
Overview	1
Guidelines for PQG	3
Example of Nonresident Assignment Memorandum	6
Professional Development Supervisor (PDS) Instructions	7
Example of PDS Assignment Memorandum	9
Course Description	11
Performance Qualification Guide Sheets	13
Monthly Tracking Sheets	35

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HOW TO USE THE PERFORMANCE QUALIFICATION CERTIFICATION GUIDE (PQG)

Overview

Introduction

The Performance Qualification Certification Guide (PQG) is a performance-based, systematic approach to completing the enlisted performance qualifications (EPQs) for advancement. This PQG is a training aid that is included as part of your Electronics Technician Second Class non-resident correspondence course. Under the direction of your assigned professional development supervisor (PDS), you will complete all tasks identified in this PQG.

PQG Job Aid

This job aid will guide you and your chain of command through the overall process leading up to your being able to compete in the Electronics Technician Second Class servicewide exam (SWE).

Step	Action	Responsibility
1.	Order Electronics Technician Second Class nonresident course. (The PQG will be a separate pamphlet enclosed with your course material.)	Member and ESO
2.	Assign member (student) to nonresident program and assign a professional development supervisor (PDS) to coach/train student. (See examples of assignment memorandums on pages 6 and 9.)	CO and/or ESO
3.	Review PQG and establish training time line to complete all tasks.	Member and PDS
4.	Prepare the PQG Monthly Tracking Sheet (MTS).	PDS
5.	Read course material; complete all practical exercises, job aids, and quizzes; and demonstrate proficiency on all TPOs and EPQs to PDS.	Member
6.	Provide feedback to member on performance. Initial/sign off on successfully completed job aids, TPOs, and EPQs.	PDS
7.	Track member's progress on MTS and ensure all actions have been initialed or signed off as completed.	Member and PDS
8.	Submit MTS to department head for periodic review and approval.	Member and PDS

Continued on next page

Overview (Continued)

PQG Job Aid, (continued)

Step	Action	Responsibility
9.	Sign MTS* to acknowledge member has successfully completed all requirements of PQG nonresident program. (*Retain MTS in member's Training Record.)	CO or XO
10.	Ensure end-of-course test (EOCT) is ordered for member and arrange test time.	ESO
11.	Take and pass EOCT.	Member
12.	Recommend member for advancement.	CO

Assignment Letters

Letters assigning the student to the nonresident program and designating the PDS are recommended. Examples of these letters are provided on pages 6 and 9.

Monthly Tracking Sheet

The PDS and the student will complete a Monthly Tracking Sheet (MTS). Periodically this sheet will be evaluated and signed by the student's department head. After the student has successfully completed all PQG sheets and passed the end-of-course test (EOCT), the CO/XO will sign the final completion block on the MTS and the tracking sheet will become a permanent part of the student's Training Record.

Completion of Nonresident Program

The student will remain in the nonresident program until every EPQ has been successfully completed and signed off by the PDS. Normal time frame for completion of training is six to 12 months.

Guidelines for PQG

Purpose The purpose of this PQG is to provide a comprehensive, systematic approach to performance-based training. By successfully performing the tasks identified in this PQG, you will be able to complete your enlisted performance qualifications (EPQs), which are part of the preparation for eligibility to compete in the servicewide exam (SWE).

You and Your Supervisor It is YOUR responsibility to make sure that the person designated as your professional development supervisor (PDS) reads the “Professional Development Supervisor (PDS) Instructions” in this course.

Your PDS will use this PQG as a tool to document your successful completion of the EPQs as a part of your advancement process. All EPQs for E-5 are covered in this PQG.

Performance Objectives This PQG contains terminal performance objectives (TPOs) and enabling objectives (EOs), which are explained in the table below.

Type of Objective	Outcomes
Terminal Performance Objectives (TPOs)	These objectives reflect the EPQs you are striving to complete.
Enabling Objectives (EOs)	These objectives are the performances you will complete that will lead you to successful completion of the TPOs.

PQG Sheets The PQG sheets identify the TPOs and steps you need to master to be proficient in completing your enlisted performance qualifications (EPQs). The number appearing on the right top corner of the PQG sheet corresponds to the qual number on the Record of Performance Qualifications (CG-3303C-1) for the Electronics Technician rating.

As you complete each task listed on the PQG sheets, your professional development supervisor (PDS) will sign next to each task, indicating you have satisfactorily completed that task. After you have completed all steps under the TPO, you will be ready to accomplish the TPO that directly relates to the EPQ you are working on.

Guidelines for PQG (Continued)

PQG Sheets (continued)

Once you demonstrate proficiency in the performance of the TPO(s), your PDS will initial and date the appropriate column on the Record of Performance Qualifications (CG 3303C-1), indicating your completion of that EPQ.

PQG Completion Steps

Follow these steps to guide you toward final completion of your PQG.

Step	Action
1.	Read the PQG sheet and lesson material.
2.	Practice the lesson objectives; complete the practical exercises/job aids/lesson self-quizzes. Ask for help if you do not understand the material.
3.	Take the job aid(s) to your PDS.
4.	Perform the steps/actions in the job aid(s) for your PDS.
5.	Receive feedback from your PDS. Perform steps/actions again, if necessary.
6.	Take the PQG sheet and the job aid(s) to your PDS.
7.	Using the job aid(s), perform all TPO steps listed on the PQG sheet for your PDS.
8.	Have your PDS sign and date each step on the PQG sheet to verify that you have successfully performed each.
9.	Have your PDS initial and date the appropriate EPQ on your Record of Performance Qualifications (CG-3303C-1).
10.	Repeat steps 1-9 for each PQG sheet.
11.	Take the completed PQG, Monthly Tracking Sheet and the CG-3303C-1 to your unit XO, training officer, ESO or other designated recipient for appropriate action.

Guidelines for PQG (Continued)

End-of-Course Test (EOCT)

The EOCT measures your knowledge that supports each performance objective contained in your nonresident course. Be sure to complete the self-quiz for each lesson along with any pamphlet review quizzes. Remember, these pamphlet review questions are examples of the types of questions you will find on the EOCT.

Passing your EOCT is part of the advancement process. Take the exam seriously and study all of the course pamphlets. Ask others for help, prior to taking the exam, if you do not understand the material.

Example of Nonresident Assignment Memorandum

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
U.S. Coast Guard
Cutter Steadfast

St. Petersburg, FL 33703-5001
Staff Symbol: XO
Phone: (727) 335-6192
Fax: (727) 335-6192
Email:

1500
25 Oct 2007

MEMORANDUM

From: B. A. MOORE, CDR, USCG
USCGC STEADFAST

Reply to XO
Attn of: (757) 856-2131

To: Electronics Technician Third Class Jeff Robertson, 0372, USCG

Subj: ASSIGNMENT TO THE NONRESIDENT E-5 PROGRAM

Ref: (a) Station Instruction 1500.2B

1. You are hereby assigned to the Nonresident E-5 Program.
2. This assignment is based on your desires to become a Second Class Petty Officer. It will be your responsibility to acquire the skills, knowledge, and abilities in the Electronics Technician rating, as well as the completion of the Enlisted Performance Qualifications (EPQs) to be eligible for advancement to E-5.
3. The following guidelines have been established to ensure the standardization of the training process for the Nonresident E-5 Program.
 - The Performance Qualification Certification Guide (PQG) will be your tool to track your progress towards completion of the EPQs.
 - You should be able to demonstrate proficiency in each of the performance objectives listed in the PQG. There is an initial block next to each task where your professional development supervisor (PDS) must indicate that he/she has observed your successful completion of that task in accordance with the steps and criteria contained in the lesson job aid.
 - Normal time frame for completion of the Nonresident Program is six to 12 months. You will be evaluated each month by your PDS on your progression. You will be given feedback on your performance, and the evaluation will be sent to your immediate supervisor.
4. Once you have completed all of the performance objectives in the PQG, you will be ready to demonstrate your proficiency of the E-5 quals to your PDS, who will initial and date the appropriate column in the Record of Performance Qualifications (CG 3303C-1). All EPQs at this level must be successfully completed for advancement.
5. I commend you on this assignment, and look forward to your successful completion.

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Professional Development Supervisor (PDS) Instructions

Purpose The purpose of this PQG is to provide a comprehensive, systematic approach to performance-based training. The student, along with your assistance and mentorship, will be striving towards completion of the EPQs in order to be eligible for advancement to ET2.

Your Role As PDS You have been selected as a PDS based on your paygrade and professional competence. It will be your responsibility to assist, guide, and mentor the student in his/her efforts towards professional development and advancement in the Electronics Technician rating.

Note: An example of a PDS assignment memorandum is provided on page 9.

PDS Competencies

The following guidelines have been established to ensure the standardization of the training process.

- The PQG will be your tool to track the student's progress towards completion of the EPQs.
 - Within the lesson material are steps that the student will demonstrate to you. (Some ratings have included an initial box next to each step in the course material.)
 - The student should be able to demonstrate proficiency in all terminal performance objectives listed on the PQG sheets. There is a signature block next to each step in a table below the TPO where you must indicate the student's completion of that step.
 - Once all steps have been completed, the student will demonstrate each TPO to you. It will be your job to assess the student's ability to satisfy the accomplishment of that TPO and its EPQ. Basically, the EPQs are the PQG's TPOs.
 - Use your good judgment in determining your student's performance. The Coast Guard is putting its trust in you to help your fellow shipmate become a competent Electronics Technician Second Class.
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Professional Development Supervisor (PDS) Instructions (Continued)

Monthly Tracking Sheet

Included at the end of this handbook is a Monthly Tracking Sheet (MTS). You and the student must develop a reasonable time line for completion of this PQG handbook. Periodically, this tracking sheet should be evaluated and signed by your department head. If used correctly, the MTS will motivate the student and you to systematically develop his/her skills to perform all the tasks required for performance of ET2 enlisted performance qualifications.

EPQ Sign-Off

When the student has demonstrated proficiency in the performance of the EPQ, you will initial and date the appropriate column in the Record of Performance Qualifications (CG 3303C-1). This official record, along with the completed PQG, will document the student's eligibility for advancement to ET2.

For More Information

For more detailed information regarding the completion of the Record of Performance Qualifications, refer to the Coast Guard Enlisted Performance Qualifications Manual, COMDTINST M1414.8 (series).

Example of PDS Assignment Memorandum

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
U.S. Coast Guard
Cutter Steadfast

St. Petersburg, FL 33703-5001
Staff Symbol: XO
Phone: (727) 335-6192
Fax: (727) 335-6192
Email:

1500
25 October 2007

MEMORANDUM

From: B. A. MOORE, CDR, USCG
USCGC STEADFAST

Reply to XO
Attn of: (757) 856-2131

To: ET1 Horace Greely, 1492, USCG

Subj: ASSIGNMENT AS PROFESSIONAL DEVELOPMENT SUPERVISOR (PDS)

Ref: (a) Station Instruction 1500.2B

1. You are hereby designated as a professional development supervisor (PDS) for (enter member's name and rate).
2. This assignment is based on your paygrade and professional competence. It will be your responsibility to assist, guide, and mentor the member in his/her efforts to improve his/her skills, knowledge, and abilities in the Electronics Technician rating.
3. The following guidelines have been established to ensure the standardization of this performance-based training process:
 - The Performance Qualification Certification Guide (PQG) will be your tool to track the member's progress towards completion of the EPQs.
 - The member should be able to demonstrate proficiency in each of the terminal performance objectives (TPO) listed in the PQG. There is signature block next to each step where you must indicate that you have observed the member's successful completion of the TPO in accordance with the steps and criteria contained in the lesson/job aid.
4. Once the member has completed all of the terminal performance objectives, it will be your responsibility to determine if he/she has successfully demonstrated proficiency in all currently published E-5 enlisted performance qualifications in the Electronics Technician rating. Use your good judgment in determining successful performance. I am placing my trust in your ability to assist your fellow shipmate in becoming a highly competent, professional member of the U.S. Coast Guard.

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Course Description

Course Preview This course will introduce you to the skills and knowledge needed to successfully perform the duties associated with the Journeyman (E5 and E6) level of Electronics Technician (ET).

Course Outline Four units of instruction have been developed to give you training on the knowledge and tasks of an ET2.

Unit Number/Title	In this unit you will learn about . . .	Related EPQ
1. Administration & Documentation	Obtaining spare parts, modules and maintenance supplies	5.A.01
	Scheduling unit test equipment for calibration	5.A.02
	Preparing casualty reports	5.A.03
	Submitting form 4790C/K	5.A.04
	Destroying classified documents	5.C.02
2. Equipment & Personnel Safety	Verifying that required warning signs are posted	5.C.01
3. Training	Training electronics personnel in:	
	<ul style="list-style-type: none"> Safety procedures 	5.B.01
	<ul style="list-style-type: none"> RF Hazards of Electro-Magnetic Radiation to Personnel (HERP) 	5.B.02
	<ul style="list-style-type: none"> General Purpose Electronic Test Equipment (GPETE) 	5.B.03
	<ul style="list-style-type: none"> Special Purpose Electronic Test Equipment (SPETE) 	5.B.04
	<ul style="list-style-type: none"> Operation and maintenance of assigned electronic systems 	5.B.05
	Demonstrating safety precautions to eliminate/limit exposure to RF radiation	5.C.03

Course Description (continued)

Course Outline (cont'd)

Unit Number/Title	In this unit you will learn about . . .	Related EPQ
4. Electronic Equipment & Cabling (Volume 1) 	Installing field changes/ORDALTs	5.A.05
	Inspecting electronic equipment and/or system installations	5.A.06
	Installing cable through multi-cable transits	5.D.05
	Tracing a point-to-point connection through multiple compartments	5.D.01
	Evaluating multiple conductor, coaxial, and HELIAX [®] cable and connectors	5.D.04 5.D.02 5.D.07
	Installing HELIAX [®] cable connectors	5.D.06
(Volume 2)	Maintaining protection subsystems: <ul style="list-style-type: none"> • Fault protection subsystems • Lightning protection subsystems • Signal reference ground subsystems 	5.D.03

Terminal Performance Objective 1.1

Given a request for spare parts, modules, and maintenance supplies, using federal and commercial sources and a job aid, **OBTAIN** spare parts, modules, and maintenance supplies with 100% accuracy.

Notes to PDS

Provide student access to CMplus, Adobe Forms, and a list of spare parts, modules, and maintenance supplies to be ordered. Follow up with the student to ensure delivery of ordered supplies.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Determine ordering information of spare parts, modules and maintenance items to be ordered.	Administration and Documentation, Lesson 1	
2.	Obtain accounting line information from unit storekeepers.	Administration and Documentation, Lesson 1	
3.	Complete Procurement Request (PR).	Administration and Documentation, Lesson 1	
4.	Track progress of ordered item.	Administration and Documentation, Lesson 1	
5.	Update PR once ordered item is received.	Administration and Documentation, Lesson 1	
6.	File completed PR.	Administration and Documentation, Lesson 1	

Professional Development Supervisor’s Comments and Notes

Terminal Performance Objective 1.2

Given test equipment requiring calibration, and using a job aid, **SCHEDULE** test equipment for calibration so that test equipment is calibrated with 100% accuracy and returned within the allotted time.

Notes to PDS

The student is to understand the requirements for calibrating test equipment and schedule development, to avoid equipment-use conflicts.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Determine test equipment due for calibration.	Administration and Documentation, Lesson 2	
2.	Determine if funding for calibration is available.	Administration and Documentation, Lesson 2	
3.	Notify calibration facility of incoming electronic test equipment.	Administration and Documentation, Lesson 2	
4.	Complete a Procurement Request (PR) to send test equipment out for calibration.	Administration and Documentation, Lesson 2	
5.	Schedule an appointment time for pick-up or drop-off.	Administration and Documentation, Lesson 2	
6.	Ready the test equipment for delivery to the calibration lab.	Administration and Documentation, Lesson 2	
7.	Track progress of test equipment calibration.	Administration and Documentation, Lesson 2	
8.	Pick up test equipment after calibration.	Administration and Documentation, Lesson 2	
9.	Verify test equipment is returned in an operational condition.	Administration and Documentation, Lesson 2	
<i>Continued on next page</i>			

Administration & Documentation PQG (Continued)**5.A.02 (cont'd)**

Item	Step	Job Aid Location	PDS Signature and Date
10.	Return test equipment to its proper location.	Administration and Documentation, Lesson 2	
11.	Upgrade calibration log.	Administration and Documentation, Lesson 2	
12.	File paperwork in its appropriate location.	Administration and Documentation, Lesson 2	

Professional Development Supervisor's Comments and Notes

Terminal Performance Objective 1.3

Given the required casualty data and access to the Coast Guard Message System, and using the CASREP job aid, **PREPARE** the following casualty reports with 100% accuracy and within the allotted time:

- Initial Casualty Report
- Update Casualty Report
- Cancel Casualty Report
- Correct Casualty Report

Notes to PDS

Provide the student with a computer and access to CMplus. Have the student input (and save) completed and deferred maintenance activities into the unit work management system. Verify student performance.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Access CMplus.	Administration and Documentation, Lesson 3	
2.	Determine type of CASREP.	Administration and Documentation, Lesson 3	
3.	Enter pertinent information into appropriate CASREP form.	Administration and Documentation, Lesson 3	
4.	Submit CASREP through chain of command for approval.	Administration and Documentation, Lesson 3	
5.	Submit CASREP to proper personnel for release.	Administration and Documentation, Lesson 3	
6.	Print copy of message once released on message board.	Administration and Documentation, Lesson 3	
7.	File printed copy of message for record retention.	Administration and Documentation, Lesson 3	

Professional Development Supervisor’s Comments and Notes

Terminal Performance Objective 1.4

Upon completion of an electronic equipment configuration change, and using a job aid, **SUBMIT** form 4790C/K with 100% accuracy.

Notes to PDS

Provide the student access to Adobe Forms via a Coast Guard WSIII and a list of completed configuration changes.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Verify completed equipment configuration changes.	Administration and Documentation, Lesson 4	
2.	Access Adobe Forms and view form OPNAV 4790C/K.	Administration and Documentation, Lesson 4	
3.	Complete all required fields of an OPNAV 4790C/K.	Administration and Documentation, Lesson 4	
4.	Submit OPNAV 4790C/K to appropriate authority.	Administration and Documentation, Lesson 4	

Professional Development Supervisor's Comments and Notes

Terminal Performance Objective 1.5

Given expired classified documents, and using a job aid, **PERFORM** destruction in accordance with the Classified Information Management Program with 100% accuracy.

Notes to PDS

Provide student with expired classified documents (or simulations) and access to information on the Classified Information Management program.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Verify classified documents are to be destroyed.	Administration and Documentation, Lesson 5	
2.	Request a witness to observe and verify destruction of classified documents.	Administration and Documentation, Lesson 5	
3.	Destroy classified documents.	Administration and Documentation, Lesson 5	
4.	Record destruction of documents.	Administration and Documentation, Lesson 5	

Professional Development Supervisor’s Comments and Notes

Terminal Performance Objective 2.1

Given a space containing electronic equipment, and using a job aid, **VERIFY** that the following required warning signs are posted with 100% accuracy:

- RF radiation hazard
- High voltage warning
- Shock hazard warning
- CPR
- Multiple power sources
- Permissible RF exposure areas
- Toxic gas warning
- Hearing protection requirements

Notes to PDS

Provide the student with the Electronics Manual, M10550.25a (series). The student is to 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.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Check for missing, damaged, or incorrectly mounted warning signs.	Equipment and Personnel Safety, Lesson 1	
2.	Order and replace warning signs as needed.	Equipment and Personnel Safety, Lesson 1	
3.	Notify supervisor.	Equipment and Personnel Safety, Lesson 1	

Professional Development Supervisor’s Comments and Notes

Terminal Performance Objective 3.0

Given informational material pertaining to a lesson, **TRAIN** electronics personnel in applicable safety procedures for working in and around electronic equipment with 100% accuracy.

Notes to PDS

Provide the student with Electronics Manual, M10550.25a (series) and the Training and Education Manual, M1500.10 (series).

Item	Step	Job Aid Location	PDS Signature and Date
1.	Determine safety procedures for working in and around electronic equipment.	Training, Lesson 1	
2.	Develop lesson plan for safety procedures to be followed when working in or around electronic equipment.	Training, Lesson 1	
3.	Determine an environment suitable for training.	Training, Lesson 1	
4.	Notify electronics personnel required to attend training.	Training, Lesson 1	
5.	Deliver training for working in and around electronic equipment.	Training, Lesson 1	
6.	Provide opportunity for practice and feedback.	Training, Lesson 1	
7.	Document personnel training records.	Training, Lesson 1	

Professional Development Supervisor's Comments and Notes

Terminal Performance Objective 3.2

Given informational material pertaining to a lesson, **TRAIN** electronics personnel in RF Hazards of Electro-Magnetic Radiation to Personnel (HERP) with 100% accuracy.

Notes to PDS

Provide the student with the Electronics Manual, M10550.25a (series) and *Protection of DoD Personnel from Exposure to Radio Frequency Radiation and Military Exempt Lasers*, DODINST 6055.11, Enclosures 4, 5, 6, and 7.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Obtain applicable RF HERP information.	Training, Lesson 1	
2.	Develop lesson plan covering RF HERP.	Training, Lesson 1	
3.	Determine an environment suitable for training.	Training, Lesson 1	
4.	Notify electronics personnel required to attend training.	Training, Lesson 1	
5.	Deliver training for RF HERP.	Training, Lesson 1	
6.	Provide opportunity for practice and feedback.	Training, Lesson 1	
7.	Document personnel training records.	Training, Lesson 1	

Professional Development Supervisor's Comments and Notes

Terminal Performance Objective 3.3

Given instructional materials, TRAIN electronics personnel in the operation of the following General Purpose Electronic Test Equipment (GPETE) with 100% accuracy:

- Transmission test set (TTS)
- Oscilloscope

Notes to PDS

The student is to provide instruction to electronics personnel in the operation of the TTS and oscilloscope.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Obtain proper procedures for the operation of General Purpose Electronic Test Equipment.	Training, Lesson 2	
2.	Develop lesson plan covering General Purpose Electronic Test Equipment.	Training, Lesson 2	
3.	Determine an environment suitable for training.	Training, Lesson 2	
4.	Notify electronics personnel required to attend training.	Training, Lesson 2	
5.	Deliver training for General Purpose Electronic Test Equipment.	Training, Lesson 2	
6.	Provide opportunity for practice and feedback.	Training, Lesson 2	
7.	Document personnel training records.	Training, Lesson 2	

Professional Development Supervisor’s Comments and Notes

Terminal Performance Objective 3.4

Given instructional materials, **TRAIN** electronics personnel in the operation of the following Special Purpose Electronic Test Equipment (SPETE) with 100% accuracy:

- Time domain reflectometer (TDR)
- Communication analyzer

Notes to PDS

The student is to provide instruction to electronics personnel in the operation of the TDR and comms analyzer.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Obtain proper procedures for the operation of Special Purpose Electronic Test Equipment.	Training, Lesson 3	
2.	Develop lesson plan covering Special Purpose Electronic Test Equipment.	Training, Lesson 3	
3.	Determine an environment suitable for training.	Training, Lesson 3	
4.	Notify electronics personnel required to attend training.	Training, Lesson 3	
5.	Deliver training for Special Purpose Electronic Test Equipment.	Training, Lesson 3	
6.	Provide opportunity for practice and feedback.	Training, Lesson 3	
7.	Document personnel training records.	Training, Lesson 3	

Professional Development Supervisor’s Comments and Notes

Training PQG (Continued)

5.B.05

Terminal Performance Objective 3.5

Given informational material pertaining to a specific piece of electronic equipment, **TRAIN** electronics personnel in the operation and maintenance of assigned electronic systems with 100% accuracy.

Notes to PDS

The student is to provide instruction to electronics personnel on the maintenance and operation of assigned electronic equipment/systems, to enable them to assist with or assume maintenance and repair responsibilities.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Obtain applicable electronic equipment information.	Training, Lesson 1	
2.	Develop lesson plan covering electronic equipment.	Training, Lesson 1	
3.	Determine an environment suitable for training.	Training, Lesson 1	
4.	Notify electronics personnel required to attend training.	Training, Lesson 1	
5.	Deliver training for electronic equipment.	Training, Lesson 1	
6.	Provide opportunity for practice and feedback.	Training, Lesson 1	
7.	Document personnel training records.	Training, Lesson 1	

Professional Development Supervisor's Comments and Notes

**Terminal
Performance
Objective 3.6**

Given various RF radiation hazardous situations, and using a job aid, **DEMONSTRATE** safety precautions to eliminate/limit exposure to RF radiation with 100% accuracy.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Determine the Permissible Exposure Limit (PEL) for the job environment.	Training, Lesson 4	
2.	Inspect RF environments for compliance of safety guidelines to exposure from RF energy.	Training Lesson 4	
3.	Correct safety deficiencies from exposure of RF energy as required using established programs.	Training, Lesson 4	

Professional Development Supervisor's Comments and Notes

**Terminal
Performance
Objective 4.1**

Given a field change/ORDALT to electronic equipment, and using a job aid, **INSTALL** the field change with 100% accuracy and within a timely manner.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Determine the contents of the field change to be performed.	Elec. Equip. & Cabling (Volume 1), Lesson 1	
2.	Perform the field change on the assigned equipment.	Elec. Equip. & Cabling (Volume 1), Lesson 1	
3.	Verify proper operation of the affected equipment after the field change.	Elec. Equip. & Cabling (Volume 1), Lesson 1	
4.	Update records as required.	Elec. Equip. & Cabling (Volume 1), Lesson 1	

Professional Development Supervisor’s Comments and Notes

Terminal Performance Objective 4.2

Given a completed electronic equipment and/or system installation, and using a job aid, **EVALUATE** the installation to verify 100% accuracy.

Notes to PDS

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

Item	Step	Job Aid Location	PDS Signature and Date
1.	Determine the type of installation.	Elec. Equip. & Cabling (Volume 1), Lesson 2	
2.	Verify proper operation of the installed equipment.	Elec. Equip. & Cabling (Volume 1), Lesson 2	
3.	Update records as required.	Elec. Equip. & Cabling (Volume 1), Lesson 2	

Professional Development Supervisor's Comments and Notes

Terminal Performance Objective 4.3

Given a request to install cable through multiple compartments and/or spaces, and using a job aid, **INSTALL** cable through multi-cable transits with 100% accuracy.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Obtain terminations and route of cable run.	Elec. Equip. & Cabling (Volume 1), Lesson 3	
2.	Determine length of cable run.	Elec. Equip. & Cabling (Volume 1), Lesson 3	
3.	Notify affected personnel.	Elec. Equip. & Cabling (Volume 1), Lesson 3	
4.	Install cable.	Elec. Equip. & Cabling (Volume 1), Lesson 3	
5.	Test cable and attached equipment for proper operation.	Elec. Equip. & Cabling (Volume 1), Lesson 3	
6.	Update unit drawings.	Elec. Equip. & Cabling (Volume 1), Lesson 3	

Professional Development Supervisor's Comments and Notes

Terminal Performance Objective 4.4

Given a request to verify and update unit drawings, and using a job aid, cable tags, unit drawings or ship's Computer-Operated Engineering Data (COED), **TRACE** a point-to-point connection through multiple compartments with 100% accuracy.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Locate the physical cable/wire connections to be traced.	Elec. Equip. & Cabling (Volume 1), Lesson 4	
2.	Start at beginning point of cable/wire connections using visual and continuity checks.	Elec. Equip. & Cabling (Volume 1), Lesson 4	
3.	Complete tracing to end point using visual and continuity checks.	Elec. Equip. & Cabling (Volume 1), Lesson 4	
4.	Verify physical cable/wire connections matches with COED.	Elec. Equip. & Cabling (Volume 1), Lesson 4	

Professional Development Supervisor's Comments and Notes

Terminal Performance Objective 4.5

Given a request to inspect, and using a job aid, **EVALUATE** multiple conductor cable with 100% accuracy.

Notes to PDS

The process for completing this TPO and TPOs 4.6 and 4.8 are essentially the same and therefore are addressed in the same lesson.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Locate the physical cable/wire connections to be inspected.	Elec. Equip. & Cabling (Volume 1), Lesson 5	
2.	Verify cable using a visual inspection and continuity check.	Elec. Equip. & Cabling (Volume 1), Lesson 5	
3.	Validate cable locations and connections against unit drawings.	Elec. Equip. & Cabling (Volume 1), Lesson 5	

Professional Development Supervisor’s Comments and Notes

Terminal Performance Objective 4.6

Given installed coaxial cable, and using a job aid, **EVALUATE** coaxial cable and connectors with 100% accuracy.

Notes to PDS

The process for completing this TPO and TPOs 4.5 and 4.8 are essentially the same and therefore are addressed in the same lesson.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Locate coaxial cable and connections to be inspected.	Elec. Equip. & Cabling (Volume 1), Lesson 5	
2.	Verify coaxial cable using a visual inspection and continuity check.	Elec. Equip. & Cabling (Volume 1), Lesson 5	
3.	Validate cable locations and connections against unit drawings.	Elec. Equip. & Cabling (Volume 1), Lesson 5	

Professional Development Supervisor’s Comments and Notes

**Terminal
Performance
Objective 4.7**

Given HELIAX[®] cables and connectors, and using a job aid, **INSTALL** HELIAX[®] cable connectors with 100% accuracy.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Obtain recommended HELIAX [®] connectors.	Elec. Equip. & Cabling (Volume 1), Lesson 6	
2.	Install HELIAX [®] connectors according to manufacturer's instructions.	Elec. Equip. & Cabling (Volume 1), Lesson 6	
3.	Verify installation of HELIAX [®] connectors.	Elec. Equip. & Cabling (Volume 1), Lesson 6	

Professional Development Supervisor's Comments and Notes

Terminal Performance Objective 4.8

Given installed HELIAX[®] cable, and using a job aid, **EVALUATE** HELIAX[®] cable and connectors with 100% accuracy.

Notes to PDS

The processes for completing this TPO and TPOs 4.5 and 4.6 are essentially the same and therefore are addressed in the same lesson.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Locate HELIAX [®] cable and connections to be inspected.	Elec. Equip. & Cabling (Volume 1), Lesson 5	
2.	Verify HELIAX [®] cable using a visual inspection and continuity check.	Elec. Equip. & Cabling (Volume 1), Lesson 5	
3.	Validate HELIAX [®] cable locations and connections against unit drawings.	Elec. Equip. & Cabling (Volume 1), Lesson 5	

Professional Development Supervisor's Comments and Notes

Electronic Equipment & Cabling PQG (Continued)

5.D.03

Terminal Performance Objective 4.9

Given applicable documentation and tools, and using a job aid, **INSPECT** the following protection subsystems with 100% accuracy:

- Fault protection subsystems
- Lightning protection subsystems
- Signal reference ground subsystems.

Notes to PDS

The student is to understand the purpose and operation of protection circuits. The student will ensure that power protection circuits are installed and working to protect equipment from power surges, sags in the power system, and power surges (lightning) through external wiring and antennas.

Item	Step	Job Aid Location	PDS Signature and Date
1.	Inspect for deficiencies.	Elec. Equip. & Cabling, (Volume 2)	
2.	Test for proper resistance measurements.	Elec. Equip. & Cabling, (Volume 2)	
3.	Correct deficiencies as necessary.	Elec. Equip. & Cabling, (Volume 2)	
4.	Verify proper operation of equipment.	Elec. Equip. & Cabling, (Volume 2)	
5.	Update unit drawings.	Elec. Equip. & Cabling, (Volume 2)	

Professional Development Supervisor's Comments and Notes

MONTHLY TRACKING SHEET FOR ET2 PERFORMANCE QUALIFICATION CERTIFICATION GUIDE

Name: _____

Name of PDS	EPQ	Start Date	Due Date	Progress			Date Completed	PDS Signature
				25%	50%	75%		

Administration & Documentation

Procure Spare Parts, Modules, Supplies	5.A.01							
Schedule Unit Test Equipment for Calibration	5.A.02							
Report an Equipment Casualty	5.A.03							
Submit Form OPNAV 4790 C/K	5.A.04							
Demonstrate Destruction of Documents and Equipment	5.C.02							

PDS comments and/or department head periodic review and signature/date:

Name of PDS	EPQ	Start Date	Due Date	Progress			Date Completed	PDS Signature
				25%	50%	75%		

Equipment & Personnel Safety

Inspect Electronic Equipment Spaces	5.C.01							
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PDS comments and/or department head periodic review and signature/date:

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MONTHLY TRACKING SHEET FOR ET2 PERFORMANCE QUALIFICATION CERTIFICATION GUIDE

Name: _____

Name of PDS	EPQ	Start Date	Due Date	Progress			Date Completed	PDS Signature
				25%	50%	75%		
Training								
Train Personnel in Safety Procedures	5.B.01							
Train Personnel in RF HERP	5.B.02							
Train Personnel in GPETE	5.B.03							
Train Personnel in SPETE	5.B.04							
Train Personnel in Operation and Maintenance of Electronic Equipment	5.B.05							
Demonstrate RF Safety Precautions	5.C.03							
PDS comments and/or department head periodic review and signature/date:								

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MONTHLY TRACKING SHEET FOR ET2 PERFORMANCE QUALIFICATION CERTIFICATION GUIDE

Name: _____

Name of PDS	EPQ	Start Date	Due Date	Progress			Date Completed	PDS Signature
				25%	50%	75%		
Electronic Equipment & Cabling								
Install Field Change/ORDALT	5.A.05							
Evaluate Installation of Elec. Equip/Sys.	5.A.06							
Install Multi-Cable Transits	5.D.05							
Trace Point-to-Point Connection	5.D.01							
Evaluate Multiple Conductor Cable	5.D.04							
Evaluate Coaxial Cable	5.D.02							
Install Heliac Cable Connector	5.D.06							
Inspect Heliac Cables	5.D.06							
Inspect Electronic Systems for EMI	5.D.07							
Maintain Ground Subsystems	5.D.03							
PDS comments and/or department head periodic review and signature/date:								

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**MONTHLY TRACKING SHEET FOR ET2
PERFORMANCE QUALIFICATION CERTIFICATION GUIDE**

Name: _____

ADDITIONAL COMMENTS:

Course Completion Date: _____ / _____

Member's signature /date: _____ / _____

PDS signature/date: _____ / _____

Retain signed Monthly Tracking Sheet in member's Training Record.