Naval Education and Training Command
NAVEDTRA 43902-19
September 1998

PERSONNEL QUALIFICATION STANDARD

FOR

ENLISTED AVIATION WARFARE SPECIALIST (EAWS), UNIT SPECIFIC FOR FIXED-WING RECONNAISSANCE (VQ EP-3)

NAME (Rate/Rank) _____

Although the words “he,” “him,” and “his” are used sparingly in this manual to enhance communication, they are not intended to be gender driven nor to affront or discriminate against anyone reading this material.

PREFACE

Warfare Qualified Sailors are an essential element of our Navy's Operational Primacy. The objective of the Enlisted Aviation Warfare Specialist Program is to provide the candidate an introduction into the processes and topics necessary to support the warfighting requirements of our Navy. This personnel warfare qualification standard will focus on mission effectiveness, combat readiness and survivability as well as introducing an overall understanding of how an individual unit mission fits into and supports naval doctrine and its objectives. Experience shows it is essential that every warrior in our Navy be totally familiar with the mission of their command and be able to apply this knowledge to support the successful execution of the command's current and future missions.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

The PQS Development Group gratefully acknowledges the assistance of the following personnel in writing this PQS:

AEC (AW/NAC)	Todd DORPINGHAUS	FAIRECONRON ONE, Whidbey Island, WA
AT1 (AW/NAC)	John BERING	FAIRECONRON ONE, Whidbey Island, WA

The PQS Development Group gratefully acknowledges the assistance of the following personnel who developed the EAWS Fixed-Wing Maritime Patrol (VP) Unit Specific PQS, which provided valuable source material in creating this PQS:

AOCM(AW/NAC)	Mark WOODWARD	COMNAVAIRESFOR, New Orleans, LA
AVCM(AW/NAC)	George PATE	NAVAIRES, Jacksonville, FL
ADCS(AW/NAC)	Edward LECCO	COMPATWINGSPAC, Barbers Point, HI
AVCS(AW/NAC)	Marc OLSON	COMPATWING FIVE, Brunswick, ME
AOC(AW)	David TORRES	PATRON 5, Jacksonville, FL
ATC(AW/NAC)	Brandon WESTBROOK	COMPATWING TEN, Whidbey Island, WA
AWC(AW/NAC)	Jeffrey ANDERSON	COMPATWINGSPAC, Barbers Point, HI
AZC(AW)	Scott DEAN	OPNAV 88, Washington, DC
AE1 (AW/NAC)	Marlene SPENCER	PATRON 16, Jacksonville, FL
AK1(AW)	Bernadette HOUSTON	PATRON 16, Jacksonville, FL
AME1(AW)	Mark FIORELLI	PATRON 30, Jacksonville, FL
AME1(AW)	Larry HALE	PATRON 5, Jacksonville, FL
AMH1(AW)	Linda McDOUGALL	PATRON 5, Jacksonville, FL
AMS1(AW)	Lou-Ann ELLINGSON	PATRON 30, Jacksonville, FL
AT1(AW/NAC)	Dennis PEREIRA	PATRON 5, Jacksonville, FL
AW1(AW/NAC)	Bob RYMSZA	PATRON 5, Jacksonville, FL
AW1(AW/NAC)	Richard WINN	PATRON 62, Jacksonville, FL
AZ1(AW)	Nielsa JACKSON	PATRON 46, Whidbey Island, WA

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COMPATWINGSPAC, Barbers Point, HI
COMPATWING TEN, Whidbey Island, WA
FAIRECONRON ONE, Whidbey Island, WA

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PQS Development Group personnel who provided direct support for this PQS.

GMCM(SW)	Tim MERRILL	Production Officer/LCPO
AWCS(AW/NAC)	Bill RAINWATER	Enlisted Warfare PQS Coordinator
ATC(AW)	Matt BRENNAN	Workshop Supervisor
Ms. Delphine LONG		Editor
Mrs. L. SWANN		Editorial Assistant

INTRODUCTION

PQS PROGRAM

This PQS program is a qualification system for officers and enlisted personnel where certification of a minimum level of competency is required prior to qualifying to perform specific duties. A PQS is a compilation of the minimum knowledge and skills that an individual must demonstrate in order to qualify to stand watches or perform other specific routine duties necessary for the safety, security or proper operation of a ship, aircraft or support system. The objective of PQS is to standardize and facilitate these qualifications.

CANCELLATION

This Standard cancels and supersedes NAVEDTRA 43423-D.

APPLICABILITY

This PQS is applicable to all enlisted personnel serving in Fixed-Wing Reconnaissance (VQ) aviation squadrons employing EP-3 aircraft and which are authorized to grant Enlisted Aviation Warfare Specialist designations IAW OPNAVINST 1414.2 (series).

TAILORING

To command tailor this package, first have it reviewed by one or more of your most qualified individuals. Delete any portions covering systems and equipment not installed on your ship, aircraft or unit. Next, add any line items, fundamentals, systems and watchstations/workstations that are unique to your command but not already covered in this package. Finally, the package should be reviewed by the cognizant department head and required changes approved by the Commanding Officer or his designated representative. Retain the approved master copy on file for use in tailoring individual packages.

QUALIFIER

The PQS Qualifier is designated in writing by the Commanding Officer to sign off individual watchstations. Qualifiers will normally be E-5 or above and, as a minimum, must have completed the PQS they are authorized to sign off. The names of designated Qualifiers should be made known to all members of the unit or department. The means of maintaining this listing is at the discretion of individual commands. For more information on the duties and responsibilities of PQS Qualifiers, see the PQS Management Guide.

INTRODUCTION (CONT'D)

CONTENTS

PQS is divided into three sections. The 100 Section (Fundamentals) contains the fundamental knowledge or book learning necessary for satisfactory understanding of the watchstation/ workstation duties. The 200 Section (Systems/Mission Areas) is designed to acquaint you with the systems you will be required to operate at your watchstation/workstation. The 300 Section (Watchstations) lists the tasks you will be required to satisfactorily perform in order to achieve final PQS qualification for a particular watchstation/workstation. All three sections may not apply to this PQS, but where applicable, detailed explanations are provided at the front of each section.

REFERENCES

The references used during the writing of this PQS package were the latest available to the workshop, however, the most current references available should be used when qualifying with this Standard. Classified references may be used in the development of PQS. If such references are used, do not make notes in this book as answers to questions in this Standard may be classified.

TRAINEE

Your supervisor will tell you which watchstations/workstations you are to complete and in what order. Before getting started, turn to the 300 Section first and find your watchstation/workstation. This will tell you what you should do before starting your watchstation/workstation tasks. You may be required to complete another PQS, a school, or other watchstations/workstations within this package. It will also tell you which fundamentals and/or systems from this package you must complete prior to qualification at your watchstation/workstation. If you have any questions or are unable to locate references, contact your supervisor or qualifier. Good luck!

PQS FEEDBACK REPORTS

This PQS was developed using information available at the time of writing. When equipment and requirements change, the PQS needs to be revised. The only way the PQS Development Group knows of these changes is by you, the user, telling us either in a letter or via the Feedback Report contained in the back of this book. You can tell of us new systems and requirements, or of errors you find.

ACRONYMS USED IN THIS PQS

Not all acronyms or abbreviations used in this PQS are defined here. The Subject Matter Experts from the Fleet who wrote this Standard determined the following acronyms or abbreviations may not be commonly known throughout their community and should be defined to avoid confusion. If there is a question concerning an acronym or abbreviation not spelled out on this page nor anywhere else in the Standard, use the references listed on the line item containing the acronym or abbreviation in question.

ADB	Aircraft Discrepancy Book
ATC	Air Traffic Control
C2W	Command and Control Warfare
DFW	Dedicated Field Work
FCF	Functional Check Flight
MTIP	Maintenance Training Improvement Program
NAMP	Naval Aviation Maintenance Program
OPTEMPO	Operational Tempo
PBFT	Planning Board For Training
QAR	Quality Assurance Representative

100 INTRODUCTION TO FUNDAMENTALS

100.1 INTRODUCTION

This PQS begins with a Fundamentals section covering the basic knowledge and principles needed to understand the equipment or duties to be studied. Normally, you would have acquired the knowledge required in the Fundamentals section during the school phase of your training. If you have not been to school or if you need a refresher, the references listed at the beginning of each fundamental will aid you in a self-study program. All references cited for study are selected according to their credibility and availability.

100.2 HOW TO COMPLETE

The fundamentals you will have to complete are listed in the watchstation (300 section) for each watchstation. You should complete all required fundamentals before starting the systems and watchstation portions of this PQS, since knowledge gained from fundamentals will aid you in understanding the systems and your watchstation tasks. When you feel you have a complete understanding of one fundamental or more, contact your Qualifier. If you are attempting initial qualification, your Qualifier will expect you to satisfactorily answer all line items in the fundamentals before signing off completion of that fundamental. If you are requalifying or have completed the appropriate schools, your Qualifier may require you to answer representative line items to determine if you have retained the necessary knowledge for your watchstation. If your command requires an oral board or written examination for final qualification, you may be asked any questions from the fundamentals required for your watchstation.

101 AIRCRAFT CHARACTERISTICS/CAPABILITIES FUNDAMENTALS

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft

101.1 Describe the physical characteristics of the EP-3E aircraft. [pp. I-1-1 thru I-1-5]

_____
(Signature and Date)

.2 What is the EP-3E total fuel capacity in U.S. gallons? [p. 3-3]

_____
(Signature and Date)

.3 State the purpose of the following aircrew positions: [pp. 16-2 thru 16-13]

a. Mission Commander (EWAC/MC)
b. Electronic Warfare Aircraft Commander (EWAC)
c. Co-Pilot (2P)
d. Flight Engineer (FE)
e. Navigator/Communicator (NAV/COM)
f. Secure Communications Operator (SECURE COMM)
g. Senior Evaluator (SEVAL)
h. Tactical Evaluator (EVAL)
i. Special Evaluator
j. Radar/ESM Operator (BIG LOOK)
k. Laboratory Operator (LABOP)
l. ESM Operator (EWOP)
m. Special Operator Supervisor
n. Special Operator
o. Record
p. Science and Technology Operator (S&T)
q. In-Flight Technician (IFT)
r. Observer

_____
(Signature and Date)

.4 State the maximum number of ditching stations. [p. 11-1]

_____
(Signature and Date)

101 AIRCRAFT CHARACTERISTICS/CAPABILITIES FUNDAMENTALS (CONT'D)

101.5 State the purpose of engine loiter operations. [p. 7-21]

_____
(Signature and Date)

.6 Discuss the danger areas of the EP-3E. [pp. 3-12, 3-13]

_____
(Signature and Date)

102 TRAINING AND READINESS FUNDAMENTALS

References:

[a] COMPATWINGSLANTINST 3500.24E, Training and Readiness Manual
[b] COMPATWINGSPACINST 3500.24C, Training and Readiness Manual
[c] FAIRECONRONONEINST 5400.1J/FAIRECONRONTWOINST 5400.1N Standard Organization and Regulations (SORM)

102.1

102 TRAINING AND READINESS FUNDAMENTALS (CONT'D)

102.5 State the purpose of the following flight crew progress boards. [ref. a, ch. 5; ref. b, ch. 5]

a. Officer Professional Development Board (OPDB)
b. Enlisted Aircrew Professional Development Board (EAPDB)
c. Mission Board (MB)
d. Training Review Board (TRB)

_____
(Signature and Date)

103 EP-3 OPERATIONS/NAVAL AIR TRAINING AND OPERATING PROCEDURES STANDARDIZATION (NATOPS) FUNDAMENTALS

References:

[a] COMPATWINGSLANTINST 3500.24E, Training and Readiness Manual
[b] COMPATWINGSPACINST 3500.24C, Training and Readiness Manual
[c] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft
[d] OPNAVINST C3501.280, Naval Warfare Mission Areas and Required Operational Capability (ROC) and Projected Operational Environment (POE) Statements For Fleet Air Reconnaissance Squadrons
[e] FAIRECONRONONEINST 5400.1J/FAIRECONRONTWOINST 5400.1N, Standard Organization and Regulations (SORM)
[f] Naval Doctrine Publication 2, Naval Intelligence

103.1 What are your command's Areas of Responsibility (AORs)? [ref. d]

_____
(Signature and Date)

.2 Discuss the responsibilities of the operations department. [ref. e]

_____
(Signature and Date)

.3 Define the duties, responsibilities, and authority of the NATOPS department. [ref. e]

_____
(Signature and Date)

.4 Describe the basic purpose of the following common flights related to aircraft flight proficiency: [ref. a, annex D; ref. b]

a. Instrument training
b. Dedicated Field Work (DFW)
c. NATOPS instrument evaluation

_____
(Signature and Date)

103 EP-3 OPERATIONS/NAVAL AIR TRAINING AND OPERATING PROCEDURES STANDARDIZATION (NATOPS) FUNDAMENTALS (CONT'D)

103.5 Describe the following NATOPS conditions of flight: [ref. c, pp. 16-1, 16-2]

a. Condition 1
b. Condition 2
c. Condition 3
d. Condition 4
e. Condition 5

_____
(Signature and Date)

.6 Define the following acronyms: [ref. f]

a. COMINT [p. 62]
b. ELINT [p. 63]
c. SIGINT [p. 67]

_____
(Signature and Date)

104 AIRFRAME FUNDAMENTALS

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft
[b] NAVAIR 01-75PAA-2-2.1, Corrosion Control, Cleaning, Painting, and Decontamination
[c] NAVAIR 01-75PAA-3-1, Organizational and Intermediate Level Maintenance EP-3E Aircraft
[d] NAVAIR 01-75PAA-2-3, Hydraulic Power Supply System
[e] OPNAVINST 4790.2G, Naval Aviation Maintenance Program (NAMP), Vol. I
[f] NAVAIR 01-75PAA-2-2.2, Landing Gear

104.1 Define the following acronyms:

a. HSC [ref. d, p. 12]
b. HSU [ref. e]
c. MLG [ref. f, WP 2, p. 8]
d. AVGFE [ref. e]

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(Signature and Date)

.2 Discuss the corrosion prone areas of the EP-3E aircraft. [ref. b, p. 3-1]

_____
(Signature and Date)

.3 Discuss the type of construction used in the EP-3E aircraft. [ref. c, p. 1-4]

_____
(Signature and Date)

.4 Describe the type of landing gear utilized on the EP-3E aircraft. [ref. a, pp. 2-99 thru 2-104]

_____
(Signature and Date)

105 PROPULSION FUNDAMENTALS

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft
[b] NAVEDTRA 12300, Aviation Machinist's Mate 3 & 2
[c] NAVAIR 01-75PAA-2-4, Powerplant and Related Systems

105.1

106 AVIONICS FUNDAMENTALS

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft
[b] NAVAIR 01-75PAE-1.1, Supplemental NATOPS Flight Manual Navy Model EP-3E Aircraft
[c] MIL HDBK 263B, Electrostatic Discharge Control Handbook

106.1 Define the following acronyms:

a. ADF [ref. a, p. 37]
b. GPS [ref. a, p. 38]
c. ESM [ref. a, p. 38]
d. SSIP [ref. a, p. 39]
e. VOR [ref. a, p. 41]
f. CRT [ref. a, p. 37]
g. DCMS [ref. a, p. 38]
h. RADALT [ref. a, p. 40]
i. CMS [ref. a, p. 37]
j. ESD [ref. c, ch. 3.22, p. 12]

_____
(Signature and Date)

.2 Discuss the two systems that comprise mission avionics. [ref. b, p. 15-1]

_____
(Signature and Date)

.3 Discuss the four radio communication sets used on the EP-3E aircraft. [ref. a, p. 14-1]

_____
(Signature and Date)

107 ELECTRICAL FUNDAMENTALS

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft

107.1

108 SURVIVAL/ENVIRONMENTAL FUNDAMENTALS

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft
[b] NAVAIR 13-1-6.1-2, Inflatable Survival Equipment
[c] NAVAIR 13-1-6.7, Aircrew Personal Protective Equipment
[d] OPNAVINST 4790.2G, Naval Aviation Maintenance Program (NAMP), Vol. I

108.1 Define the following acronyms:

a. LPP [ref. b, p. v]
b. LPA [ref. b, p. ii]
c. SV-2 [ref. c, p. vi-a]
d. EDC [ref. a, p. 38]
e. HRD [ref. a, p. 39]
f. CAD [ref. d]

_____
(Signature and Date)

.2 Discuss the purpose of aircraft cabin pressurization and air conditioning. [ref. a, p. 2-168]

_____
(Signature and Date)

.3 Discuss the purpose of aircraft oxygen systems. [ref. a, p. 2-166]

_____
(Signature and Date)

200 INTRODUCTION TO SYSTEMS/MISSION AREAS

200.1 BASIC BUILDING BLOCKS

In this section, the system and/or mission area is broken down into smaller, more comprehensible, functional systems as basic building blocks in the learning process. Each system/mission area is written to reflect specific warfare specialist requirements by identifying the equipment most relevant.

200.2 SYSTEMS AND SYSTEM PARTS

For learning purposes each system/mission area is disassembled into two levels. Mission areas have systems and systems have parts. Do not expect to see every item which appears on a parts list to be in the PQS. Only those items which must be understood for operation are listed. Normally a number of very broad (overview) mission areas are disassembled into their systems or system parts with the big picture as the learning goal.

200.3 FORMAT

Each system/mission area is organized within the following format:

- It lists the references to be used for study and asks you to explain the function of each system/mission area.
- It asks for the static facts of what or where the system and system parts are in relation to the system/mission area.
- It directs attention to the dynamics of how the system and system parts operate to make the system/mission area function.
- It specifies the parameters that must be immediately recalled.
- It requires study of the relationship between the system/mission area being studied and other systems/mission areas.

200.4 HOW TO COMPLETE

The systems/mission areas you must complete are listed in the Prerequisites section of each watchstation. When you have mastered one or more systems/mission areas, contact your Qualifier. The Qualifier will give you an oral examination on each system/mission area and, if satisfied you have sufficient knowledge of the system/mission area, will sign the appropriate system/mission area line items. You will be expected to demonstrate through oral or written examinations a thorough understanding of each system/mission area required for your watchstation.

201 AIRFRAME SYSTEM

References:

[a] NAVEDTRA 12338, Aviation Structural Mechanic (H&S) 3 & 2
[b] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft
[c] NAVAIR 01-1A-17, Aviation Hydraulics Manual

201.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?

201.1.1 Aircraft structure: [ref. a, pp. 1-1 thru 1-5]
a. Fuselage
b. Empennage
c. Wing

_____
(Signature and Date)

.2 Flight controls/surfaces: [ref. b, pp. 2-92 thru 2-98]
a. Flaps
b. Ailerons
c. Rudder
d. Elevators
e. Trim tabs

_____
(Signature and Date)

.3 Hydraulics: [ref. b, pp. 2-92 thru 2-98]
a. Pumps
b. Reservoirs
c. Booster assemblies
d. Actuators

_____
(Signature and Date)

201 AIRFRAME SYSTEM (CONT'D)

201.1.4 Airframe components: [ref. b, p. 1-1]

a. Forward radome
b. Aft radome
c. Upper canoe
d. Lower canoe
e. Extendable radome (M&M)

_____
(Signature and Date)

201.2 PRINCIPLES OF OPERATION – None to be discussed.

201.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

201.4 SYSTEM INTERFACE – None to be discussed.

201.5 SAFETY PRECAUTIONS

201.5.1 What are the precautions associated with pressurized hydraulics components? [ref. c, p. ix]

_____
(Signature and Date)

202 PROPULSION SYSTEM

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft

202.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?
C. What is the type and model used?

Questions

202.1.1 Engine: [pp. 2-1, 2-2]

a.	Power section	A B
b.	Engine accessory section	A B
c.	Reduction gear assembly	A B

_____
(Signature and Date)

.2 Aircraft Propeller system [p. 2-17] A B C

_____
(Signature and Date)

.3 Four main subassemblies of the propeller [p. 2-17] A

_____
(Signature and Date)

.4 Auxiliary Power Unit (APU) [p. 2-177] A B

_____
(Signature and Date)

.5 Five subsystems that comprise the Fuel system [pp. 2-23, 2-24] A B C

_____
(Signature and Date)

202.2 PRINCIPLES OF OPERATION – None to be discussed.

202 PROPULSION SYSTEM (CONT'D)

202.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

202.4 SYSTEM INTERFACE – None to be discussed.

202.5 SAFETY PRECAUTIONS

202.5.1 What safety precautions must be observed during fueling operations? [p. 3-1]

203 AVIONICS SYSTEM

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft
[b] NAVAIR 01-75PAE-1.1, Supplemental NATOPS Flight Manual Navy Model EP-3E Aircraft
[c] NAVAIR 01-75PAC-1.1, NFO/Aircrew NATOPS Flight Manual Navy Model P-3A/B/C Aircraft

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203.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?

203.1.1 Communication equipment:
a. Digital Communications Management System (DCMS) [ref. a, p. 2-128]
b. Ultra High Frequency (UHF) [ref. a, p. 14-1]
c. Very High Frequency (VHF) [ref. a, p. 14-8]
d. High Frequency (HF) [ref. a, p. 14-13]
e. Satellite Communication (SATCOM) [ref. c, p. VII-10-21]
f. Secure communications [ref. a, p. 14-1]

_____
(Signature and Date)

.2 Navigation equipment: [ref. a]
a. Tactical Air Navigation (TACAN) [p. 14-19]
b. Global Positioning System (GPS) [pp. 14-73 thru 14-76]
c. Automatic Direction Finder (ADF) [p. 14-9]
d. VHF Omnirange (VOR/ILS) [p. 14-15]
e. APN-234 color weather radar [p. 14-31]
f. AMS-1 stormscope [p. 14-28]

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(Signature and Date)

203 AVIONICS SYSTEM (CONT'D)

203.1.3 ESM mission avionics equipment: [ref. b]
- a. ALR-81 countermeasures receiver set [p. 15-37]
- b. ALR-76 ESM system [p. 15-34]
- c. ULQ-16 Pulse Analyzer system [p. 15-83]
- d. APS-134 radar set [p. 15-57]
- e. OE-319 antenna group [p. 15-132]
- f. OE-320 antenna group [p. 15-135]
- g. IP-1159 pulse indicator [p. 15-117]
- h. USH-33 recorder reproducer set [p. 15-95]

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(Signature and Date)

.4 Special mission systems: [ref. b]
- a. ALD-9 Direction Finder (DF) set [p. 15-18]
- b. ARR-81 countermeasures receiver set [p. 15-71]
- c. USH-34 recorder reproducer set [p. 15-143]

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(Signature and Date)

.5 Common systems: [ref. b]
- a. Video distribution [p. 15-185]
- b. RF Distribution (RFD) [p. 15-165]
- c. Computer functional group [p. 15-193]

_____
(Signature and Date)

.6 SSIP: [ref. b, p. 15-1]
- a. Story teller
- b. Story book
- c. Story classic

_____
(Signature and Date)

203.2 PRINCIPLES OF OPERATION – None to be discussed.

203.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

203.4 SYSTEM INTERFACE – None to be discussed.

203 AVIONICS SYSTEM (CONT'D)

203.5 SAFETY PRECAUTIONS

203.5.1 State the precautions used when activating a Radar system on the flight line. [ref. a, p. 3-13]

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(Signature and Date)

204 ELECTRICAL SYSTEM

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft
[b] NAVAIR 01-75PAC-2-13.1, Electrical Power Generation and Distribution

204.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each: [ref. a]

A. What is its function?
B. Where is it located?
C. What is its color?

		Questions
204.1.1	Power distribution:	
	a. Aircraft battery [p. 2-36]	A B
	b. Main generator [p. 2-33]	A B
	c. Transformer Rectifier (TR) [pp. 2-35, 2-36]	A B
	d. Supervisory panel [p. 2-34]	A B
	e. ac power [p. 2-35]	A B
	f. dc power [p. 2-35]	A B

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(Signature and Date)

.2	Exterior lighting systems: [pp. 2-71, 2-72]	
	a. Rotating beacons	A B
	b. Wing tip lights	A B
	c. Tail lights	A B
	d. Landing lights	A B
	e. Taxi lights	A B

_____
(Signature and Date)

.3	Panel lights: [p. 2-72]	
	a. Advisory	A C
	b. Caution	A C
	c. Warning	A C

_____
(Signature and Date)

204 ELECTRICAL SYSTEM (CONT'D)

Questions

204.1.4 Automatic Flight Control system:

a. PB-20N [p. 2-119] A B

b. ASW-31 [p. 2-123] A B

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(Signature and Date)

.5 Navigation systems:

a. Inertial Navigation Systems (INS) [p. 14-37] A B

b. Periscope sextant [p. 14-88] A B

_____

(Signature and Date)

204.2 PRINCIPLES OF OPERATION – None to be discussed.

204.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

204.4 SYSTEM INTERFACE – None to be discussed.

204.5 SAFETY PRECAUTIONS

204.5.1 State the precautions for working with energized circuits. [ref. b, p. 1-3]

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(Signature and Date)

205 SURVIVAL/ENVIRONMENTAL SYSTEM

References:

[a] NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft

205.1 SYSTEM COMPONENTS AND COMPONENT PARTS

Referring to a standard print of this system or the actual equipment, identify the following system components and component parts and discuss the designated items for each:

A. What is its function?
B. Where is it located?

205.1.1 Aviation Life Support System (ALSS): [pp. 11-44 thru 11-47]
a. LPP-1
b. SV-2
c. Life rafts
d. Anti-exposure suits
e. Parachutes

_____
(Signature and Date)

.2 Pressurization system: [pp. 2-168 thru 2-174]
a. Cabin air compressor (EDC)
b. Cabin exhaust fan
c. Outflow valve

_____
(Signature and Date)

.3 Air Conditioning (AC) system: [pp. 2-168 thru 2-174]
a. Refrigeration turbine
b. Heat exchanger
c. APU air multiplier package

_____
(Signature and Date)

.4 Fire-extinguishing systems [pp. 2-14 thru 2-16]

_____
(Signature and Date)

205 SURVIVAL/ENVIRONMENTAL SYSTEM (CONT'D)

205.1.5 Oxygen system [p. 2-166]

_____
(Signature and Date)

205.2 PRINCIPLES OF OPERATION – None to be discussed.

205.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

205.4 SYSTEM INTERFACE – None to be discussed.

205.5 SAFETY PRECAUTIONS

205.5.1

206 WARFARE MISSION AREA

References:

[a] OPNAVINST C3501.280, Naval Warfare Mission Areas and Required Operational Capability (ROC) and Projected Operational Environment (POE) Statements for Fleet Air Reconnaissance Squadrons
[b] FAIRECONRONONEINST 5400.1J/FAIRECONRONTWOINST 5400.1N, Standard Organization and Regulations (SORM)

206.1 MISSION STATEMENT

206.1.1 State and explain your command's mission statement. [ref. b]

_____
(Signature and Date)

.2 Discuss the history of your squadron. [ref. b]

_____
(Signature and Date)

.3 State the command's operational chain of command. [ref. b]

_____
(Signature and Date)

WARFARE MISSION AREAS

.4 What are the EP-3E's primary warfare missions? [ref. a, enc. 1]

_____
(Signature and Date)

ANTI-AIR WARFARE (AAW)

.5 Define the term AAW. [ref. a, enc. 1]

_____
(Signature and Date)

.6 Discuss the role of the EP-3E in an AAW mission. [ref. a, enc. 1]

_____
(Signature and Date)

206 WARFARE MISSION AREA (CONT'D)

ANTI-SURFACE WARFARE (ASU)

206.1.7 Define the term ASU. [ref. a, enc. 1]

_____
(Signature and Date)

.8 Discuss the role of the EP-3E in an ASU mission. [ref. a, enc. 1]

_____
(Signature and Date)

COMMAND, CONTROL, AND COMMUNICATION (CCC)

.9 Define the term CCC. [ref. a, enc. 1]

_____
(Signature and Date)

.10 Discuss the role of the EP-3E in a CCC mission. [ref. a, enc. 1]

_____
(Signature and Date)

ELECTRONIC WARFARE (ELW)

.11 Define the term ELW. [ref. a, enc. 1]

_____
(Signature and Date)

.12 Discuss the role of the EP-3E in an ELW mission. [ref. a, enc. 1]

_____
(Signature and Date)

FLEET SUPPORT OPERATIONS (FSO)

.13 Define the term FSO. [ref. a, enc. 1]

_____
(Signature and Date)

.14 Discuss the role of the EP-3E in a FSO mission. [ref. a, enc. 1]

_____
(Signature and Date)

206 WARFARE MISSION AREA (CONT'D)

INTELLIGENCE (INT)

206.1.15 Define the term INT. [ref. a, enc. 1]

_____
(Signature and Date)

.16 Discuss the role of the EP-3E in an INT mission. [ref. a, enc. 1]

_____
(Signature and Date)

MOBILITY (MOB)

.17 Define the term MOB. [ref. a, enc. 1]

_____
(Signature and Date)

.18 Discuss the role of the EP-3E in a MOB mission. [ref. a, enc. 1]

_____
(Signature and Date)

STRIKE WARFARE (STW)

.19 Define the term STW. [ref. a, enc. 1]

_____
(Signature and Date)

.20 Discuss the role of the EP-3E in a STW mission. [ref. a, enc. 1]

_____
(Signature and Date)

.21 What are the EP-3E's secondary warfare missions? [ref. a, enc. 1]

_____
(Signature and Date)

ANTI-SUBMARINE WARFARE (ASW)

.22 Define the term ASW. [ref. a, enc. 1]

_____
(Signature and Date)

206 WARFARE MISSION AREA (CONT'D)

206.1.23 Discuss the role of the EP-3E in an ASW mission. [ref. a, enc. 1]

_____
(Signature and Date)

205.2 PRINCIPLES OF OPERATION – None to be discussed.

205.3 PARAMETERS/OPERATING LIMITS – None to be discussed.

205.4 SYSTEM INTERFACE – None to be discussed.

205.5 SAFETY PRECAUTIONS – None to be discussed.

300 INTRODUCTION TO WATCHSTATIONS

300.1 INTRODUCTION

The Watchstation section of your PQS is where you get a chance to demonstrate to your Qualifier that you can put the knowledge you have gained in the previous sections to use. It allows you to practice the tasks required for your watchstation and to handle abnormal conditions and emergencies. Before starting your assigned tasks, you must complete the prerequisites that pertain to the performance of that particular task. Satisfactory completion of all prerequisites is required prior to achievement of final watchstation qualification.

300.2 FORMAT

Each watchstation in this section contains:

- A FINAL QUALIFICATION PAGE, which is used to obtain the required signatures for approval and recording of Final Qualification.

- PREREQUISTES, which are items that must be certified completed before you can begin qualification for a particular watchstation. Prerequisites may include schools, watchstation qualifications from other PQS books, and fundamentals, systems, or watchstation qualifications from this book. Prior to signing off each prerequisite line item, the Qualifier must verify completion from existing records. Record the date of actual completion, not the sign-off date.

- WATCHSTATION Performance, which is the practical factors portion of your qualification. The performance is broken down as follows:

  Tasks (routine operating tasks that are performed frequently)
  Infrequent Tasks
  Abnormal Conditions
  Emergencies
  Training Watches

If there are multiple watchstations, a QUALIFICATION PROGRESS SUMMARY will appear at the end of the Standard.

300 INTRODUCTION TO WATCHSTATIONS (CONT'D)

300.3 OPERATING PROCEDURES

The PQS deliberately makes no attempt to specify the procedures to be used to complete a task or control or correct a casualty. The only proper sources of this information are the technical manuals, Engineering Operational Sequencing System (EOSS), Naval Air Training and Operating Procedures Standardization (NATOPS) or other policy-making documents prepared for a specific installation or a piece of equipment. Additionally, the level of accuracy required of a trainee may vary from school to school, ship to ship, and squadron to squadron based upon such factors as mission requirements. Thus, proficiency may be confirmed only through demonstrated performance at a level of competency sufficient to satisfy the Commanding Officer.

300.4 DISCUSSION ITEMS

Though actual performance of evolutions is always preferable to observation or discussion, some items listed in each watchstation may be too hazardous or time consuming to perform or simulate. Therefore, you may be required to discuss such items with your Qualifier.

300.5 NUMBERING

Each Final Qualification is assigned both a watchstation number and a NAVEDTRA Final Qualification number. The NAVEDTRA number is to be used for recording qualifications in service and training records.

300.6 HOW TO COMPLETE

After completing the required prerequisites applicable to a particular task, you may perform the task under the supervision of a qualified watchstander. If you satisfactorily perform the task and can explain each step, your Qualifier will sign you off for that task. After all line items have been completed, your Qualifier will verify Final Qualification by signing and dating the Final Qualification pages.

301 ENLISTED AVIATION WARFARE SPECIALIST (EAWS), UNIT SPECIFIC FOR FIXED-WING RECONNAISSANCE (VQ EP-3)

NAME_____ RATE/RANK_____

This page is to be used as a record of satisfactory completion of designated sections of the Personnel Qualification Standard (PQS). Only specified supervisors may signify completion of applicable sections either by written or oral examination, or by observation of performance. The examination or checkout need not cover every item; however, a sufficient number should be covered to demonstrate the examinee's knowledge. Should supervisors *give away* their signatures, unnecessary difficulties can be expected in future routine operations.

This qualification section is to be kept in the individual's training jacket.

The trainee has completed all PQS requirements for this watchstation. Recommend designation as a qualified ENLISTED AVIATION WARFARE SPECIALIST (EAWS), UNIT SPECIFIC FOR FIXED-WING RECONNAISSANCE (VQ EP-3) (NAVEDTRA 43902-19).

RECOMMENDED_____ DATE_____
Supervisor

RECOMMENDED_____ DATE_____
Division Officer

RECOMMENDED_____ DATE_____
Department Head

QUALIFIED_____ DATE_____
Commanding Officer or Designated Representative

SERVICE RECORD ENTRY_____ DATE_____

301 ENLISTED AVIATION WARFARE SPECIALIST (EAWS), UNIT SPECIFIC FOR FIXED-WING RECONNAISSANCE (VQ EP-3)

Estimated completion time: 12 months

301.1 PREREQUISITES

FOR OPTIMUM TRAINING EFFECTIVENESS, THE FOLLOWING PQS ITEMS SHOULD BE COMPLETED PRIOR TO STARTING YOUR ASSIGNED TASKS BUT MUST BE COMPLETED PRIOR TO FINAL WATCHSTATION QUALIFICATION.

301.1.1 PQS QUALIFICATIONS:

P-3 Aircraft Ground Operator (NAVEDTRA 43433-1B), 301 P-3 Wing Walker

Completed _____
(Qualifier and Date)

Enlisted Aviation Warfare Specialist (EAWS) Common Core (NAVEDTRA 43902), 301 Final Qualification

Completed _____
(Qualifier and Date)

.2 FUNDAMENTALS FROM THIS PQS:

101 Aircraft Characteristics/Capabilities

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

102 Training and Readiness

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

103 EP-3E Operations/Naval Air Training and Operating Procedures Standardization (NATOPS)

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

104 Airframe

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

301 ENLISTED AVIATION WARFARE SPECIALIST (EAWS), UNIT SPECIFIC FOR FIXED-WING RECONNAISSANCE (VQ EP-3) (CONT'D)

301.1.2 105 Propulsion

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

106 Avionics

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

107 Electrical

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

108 Survival/Environmental

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

.3 SYSTEMS/MISSION AREAS FROM THIS PQS:

201 Airframe

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

202 Propulsion

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

203 Avionics

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

204 Electrical

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

205 Survival/Environmental

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

301 ENLISTED AVIATION WARFARE SPECIALIST (EAWS), UNIT SPECIFIC FOR FIXED-WING RECONNAISSANCE (VQ EP-3) (CONT'D)

301.1.3 206 Warfare

Completed _____ 3.45% of Watchstation
(Qualifier and Date)

301.2 TASKS

301.2.1 Perform an aircraft safety walk-around with a Quality Assurance Representative (QAR) and identify the hazard areas

_____
(Signature and Date)

.2 Locate and demonstrate the proper operation of all emergency exits

_____
(Signature and Date)

.3 Observe Air Traffic Control (ATC) operations at an ATC facility (tower, radar, flight planning)

_____
(Signature and Date)

.4 Attend MOPP training

_____
(Signature and Date)

.5 Participate in an aircraft wash

_____
(Signature and Date)

.6 Review a maintenance control workload report and attend a maintenance meeting

_____
(Signature and Date)

.7 Review an Aircraft Discrepancy Book (ADB) for basic content and format

_____
(Signature and Date)

301 ENLISTED AVIATION WARFARE SPECIALIST (EAWS), UNIT SPECIFIC FOR FIXED-WING RECONNAISSANCE (VQ EP-3) (CONT'D)

301.2.8 Initiate a sample missing/broken/worn tool report and explain the correct routing procedures

_____
(Signature and Date)

.9 Locate and explain the use of available hangar firefighting equipment

_____
(Signature and Date)

.10 Locate the following safety equipment aboard the EP-3E series aircraft:

a. First aid kits
b. Emergency lights
c. Life rafts
d. Emergency water containers
e. Anti-exposure suits
f. Portable fire extinguisher

_____
(Signature and Date)

.11 Using a squadron flight schedule, interpret the following information:

a. Event times (brief, preflight, takeoff, land)
b. Type of mission (mission or flight purpose codes)
c. Takeoff/recovery location

_____
(Signature and Date)

.12 Discuss how the following items effect a squadron's Operational Tempo (OPTEMPO):

a. Aircraft availability (FMC/PMC/NMC)
b. Flight hours/funding (OPTAR)
c. Mission tasking

_____
(Signature and Date)

.13 Observe a low power maintenance turn from flight station

_____
(Signature and Date)

301 ENLISTED AVIATION WARFARE SPECIALIST (EAWS), UNIT SPECIFIC FOR FIXED-WING RECONNAISSANCE (VQ EP-3) (CONT'D)

301.2.14 Observe aircraft fuel sampling procedures and inspect for contamination and proper disposal of samples

_____
(Signature and Date)

COMPLETED .2 AREA COMPRISES 48.3% OF WATCHSTATION.

301.3 INFREQUENT TASKS

301.3.1 Observe a Functional Check Flight (FCF) brief and debrief in maintenance control

_____
(Signature and Date)

COMPLETED .3 AREA COMPRISES 3.45% OF WATCHSTATION.

301.4 ABNORMAL CONDITIONS– None to be discussed.

301.5 EMERGENCIES – None to be discussed.

301.6 WATCHES – None.

301.7 EXAMINATIONS

301.7.1 EXAMINATIONS Pass a written examination

_____
(Signature and Date)

.2 EXAMINATIONS Pass an oral examination board

_____
(Signature and Date)

LIST OF REFERENCES USED IN THIS PQS

COMPATWINGSLANTINST 3500.24E, Training and Readiness Manual
COMPATWINGSPACINST 3500.24C, Training and Readiness Manual
FAIRECONRONONEINST 5400.1J/FAIRECONRONTWOINST 5400.1N Standard Organization and Regulations (SORM)
MIL HDBK 263B, Electrostatic Discharge Control Handbook
NAVAIR 01-1A-17, Aviation Hydraulics Manual
NAVAIR 01-75PAA-2-2.1, Corrosion Control, Cleaning, Painting, and Decontamination
NAVAIR 01-75PAA-2-2.2, Landing Gear
NAVAIR 01-75PAA-2-3, Hydraulic Power Supply System
NAVAIR 01-75PAA-2-4, Powerplant and Related Systems
NAVAIR 01-75PAA-3-1, Organizational and Intermediate Level Maintenance EP-3E Aircraft
NAVAIR 01-75PAC-1.1, NFO/Aircrew NATOPS Flight Manual Navy Model P-3A/B/C Aircraft
NAVAIR 01-75PAC-2-13.1, Electrical Power Generation and Distribution
NAVAIR 01-75PAE-1, NATOPS Flight Manual Navy Model EP-3E Aircraft
NAVAIR 01-75PAE-1.1, Supplemental NATOPS Flight Manual Navy Model EP-3E Aircraft
NAVAIR 13-1-6.1-2, Inflatable Survival Equipment
NAVAIR 13-1-6.7, Aircrew Personal Protective Equipment
Naval Doctrine Publication 2, Naval Intelligence
NAVEDTRA 12300, Aviation Machinist's Mate 3 & 2
NAVEDTRA 12338, Aviation Structural Mechanic (H&S) 3 & 2
OPNAVINST 4790.2G, Naval Aviation Maintenance Program (NAMP), Vol. I
OPNAVINST C3501.280, Naval Warfare Mission Areas and Required Operational Capability (ROC) and Projected Operational Environment (POE) Statements For Fleet Air Reconnaissance Squadrons

Personal Qualification Standard
Feedback Report

From_____ Date_____

Via_____ Date_____
Department Head

Activity _____

Mailing Address_____

_____DSN_____

PQS Title_____NAVEDTRA_____

Section Affected_____

Page Number(s)_____

Remarks/Recommendations (Use additional sheets if necessary):

(FOLD HERE)

DEPARTMENT OF THE NAVY

OFFICIAL BUSINESS

COMMANDING OFFICER
NETPDTC N34
6490 SAUFLEY FIELD ROAD
PENSACOLA FL 32509-5237

(FOLD HERE)