Coast Guard Auxiliary Aids to Navigation Program

D7NS-0100.1 SEVENTH DISTRICT AIDS TO NAVIGATION VERIFIER PERFORMANCE QUALIFICATION STANDARD

Coast Guard Auxiliary Aids to Navigation Program 16500.16 March 2024 and the additional requirements of District 7 March 2022

16500.16

March 2024

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16500.16
28 Mar 2024

HANDBOOK 16500.16

Subj: COAST GUARD AUXILIARY AIDS TO NAVIGATION PROGRAM HANDBOOK, 16500.16

Ref: a.   Aids To Navigation Manual-Administration, COMDTINST M16500.7 *(series)*
       b.   Auxiliary Manual, COMDTINST M16790.1 *(series)*
       c.   USCG Auxiliary National Short-Range Aids to Navigation Training Guide
       d.   Nautical Chart Updating Training Guide

1. <u>PURPOSE</u>. The purpose of this Handbook is to provide guidance for the employment of the Coast Guard Auxiliary by District Commanders in the Coast Guard's Aids to Navigation Program.

2. <u>ACTION.</u> All Coast Guard unit commanders, commanding officers, officers-in-charge, deputy/assistant commandants, chief of headquarter directorates must comply with the policies contained.

3. <u>AUTHORIZED RELEASE</u>. Internet Release is authorized.

4. <u>DIRECTIVES AFFECTED</u>.

    a.   Coast Guard Auxiliary Aids to Navigation Program, COMDTINST M16500.16A, is hereby cancelled.

    b.   Aids to Navigation (ATON) Verifier Performance Qualification Standard (PQS), Dated 14 July 2011 is hereby cancelled.

5. <u>DISCUSSION</u>. To maximize the employment of the Auxiliary in the Coast Guard's Aids to Navigation Program, the District Waterways Management (dpw) (or their authorized Units) are authorized to employ certified Auxiliarists in all phases of the Coast Guard's Aids to Navigation Programs consistent with this Handbook and reference (a).

6. <u>DISCLAIMER.</u> This Handbook is not a substitute for applicable legal requirements, nor is it itself a rule. It is intended to provide operational guidance for Coast Guard Auxiliary personnel and is not intended to nor does it impose legally binding requirements on any party outside the Coast Guard Auxiliary

7. <u>MAJOR CHANGES</u>.

    a.   Converted from a Manual to a Handbook.

    b.   Added new program naming "Auxiliary Navigation Systems Program."

    c.   Added annual currency maintenance requirements for AV-PQS certified members.

d. Added new Mission Codes: Chart/Coast Pilot Updates (Mission Code 33) and ATON Program Training (Mission Code 34).

e. Removed old active duty qualification Aid to Navigation Technician (NE) and replaced with the new qualification codes Aid to Navigation Technician (ATN-AT) or dpw Trained Minor Aid Technician (ATN-TT).

f. Added Aids to Navigation Verifier (AV) Performance Qualification Standard (PQS) to the handbook as an enclosure.

8. SCOPE AND AUTHORITIES. It is recommended the reader become familiar with the directives and publications noted throughout this Handbook.

9. ENVIRONMENTAL ASPECT AND IMPACT CONSIDERATIONS. The Office of Auxiliary and Boating Safety, Commandant (CG-BSX) reviewed this Handbook and the general policies contained within and determined that this policy falls under the Department of Homeland Security (DHS) categorical exclusion A3. This Handbook will not result in any substantial change to existing environmental conditions or violation of any applicable federal, state, or local laws relating to the protection of the environment. It is the responsibility of the action proponent to evaluate all future specific actions resulting from this policy for compliance with the National Environmental Policy Act (NEPA), other applicable environmental requirements, and the U.S. Coast Guard Environmental Planning Policy, COMDTINST 5090.1 (series).

10. DISTRIBUTION. No paper distribution will be made of this Handbook. An electronic version will be posted on the Chief Director of Auxiliary and Coast Guard Auxiliary web sites: http://agroup-bx.wow.uscgaux.info/content.php?unit=BX-GROUP and http://www.cgaux.org/, respectively. All web sites in this Handbook are the most current available. If the cited web site link does not work, then access should be attempted by copying and pasting or typing the web site address into the user's internet browser.

11. RECORDS MANAGEMENT CONSIDERATIONS. Records created as a result of this Handbook, regardless of format or media, must be managed in accordance with records retention guidance in reference (b).

12. FORMS/ REPORTS. The forms called for in this Handbook are available on the internet at https://forms.cgaux.org/ and/or the use of District-specific forms available from Auxiliary District Staff Officer – Aids to Navigation (DSO-NS).

13. REQUESTS FOR CHANGES. Questions or proposed changes to this Handbook should be directed to the Office of Auxiliary and Boating Safety, Auxiliary Division, Operations Branch (CG-BSX-12) at CGAUX@uscg.mil. Coast Guard units and individuals may recommend changes via their chain of command to the same address. Auxiliary units and individuals may similarly recommend changes via the cognizant Auxiliary chain of leadership and management.

/T. P. Glendye/
Captain, U.S. Coast Guard
Chief, Office of Auxiliary and Boating Safety

Table of Contents

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CHAPTER 1
Introduction

Introduction   This Handbook is intended to provide guidance on the use of Coast Guard Auxiliary members by the Director of Auxiliary (DIRAUX), working with the cognizant District Waterways Management (dpw) and/or Bridge Administration Branch (dpb), to support the Coast Guard's Aids to Navigation program in verification of Private Aids to Navigation (PATON), surveying bridges, submitting updates to Coast Pilot(s) and charts, and supporting Coast Guard Aids to Navigation units in servicing federal Aids to Navigation.

In this Chapter   This chapter contains the following sections:

Section	Title	Page
A	How to Use this Handbook	1-2

Section A. How to Use this Handbook

Introduction

Each chapter of this Handbook includes its own table of contents and is divided into sections. An enclosure is located at the end of this Handbook.

In this Section

This section contains the following information:

Title	Page
Chapter Layout	1-2
Notes	1-2

A.1. Chapter Layout

1. The first page of each chapter includes an *Introduction* and an *In this Chapter.*

2. The first page of each section includes an *Introduction*, and an *In this Section*, as applicable.

3. In the left column of each page are block titles, which provide a descriptive word or phrase for the corresponding block of text to the right.

A.2. Notes

The following definition applies to "Notes" found throughout this Handbook.

NOTE ☞

An operating procedure or technique that is essential to emphasize.

CHAPTER 2
Auxiliary Navigation Systems Program

| Introduction | This chapter describes the administration, procedures, duties, qualification, and currency maintenance requirements for the Coast Guard Auxiliary to assist or support the Coast Guard's Aids to Navigation program. |

The Auxiliary Navigation Systems Program consist of the following:

a. Private Aids to Navigation (PATON)
b. Federal Aids to Navigation
c. Charts and Nautical Publication updates
d. Bridges

In this Chapter   This chapter contains the following sections:

Section A.   Program Administration and Procedures

Introduction

This section discusses the administration requirements and procedures for the Auxiliary Navigation Systems program.

In this Section

This section contains the following information:

A.1. General

This program will be administered by the DIRAUX, working with the cognizant District Waterways Management (dpw) and/or Bridge Administration Branch (dpb), using appropriate Auxiliary Staff Officers and available Coast Guard units.

A.2. Procedures

Use of Coast Guard Auxiliary:

a. District Commanders are encouraged to use the Coast Guard Auxiliary for the verification of private aids to navigation to the extent that funds are available from current budgets.

b. When using the Auxiliary, District Commanders shall ensure that Auxiliarists receive training and maintain qualifications necessary to carry out the mission.

c. District Commanders are encouraged to use the Auxiliary to assist with the administration and review of private aid to navigation application forms and other duties that may arise from their verification of private aids.

d. Authorize Coast Guard units to employ an Auxiliarist in any capacity within the scope of reference (a) and this Handbook, consistent with their qualifications, certifications, and capabilities, as necessary to meet mission demands.

A.3. Responsibilities	1. The DIRAUX may delegate administrative responsibility to ensure success of the Auxiliary Navigation Systems program.
	2. District Staff Officer – Aids to Navigation (DSO-NS) shall coordinate the actions of this program. Assistant ADSO-NS shall be coordinated as necessary by the DSO-NS.
A.4. Assignment to Duty and Orders	Assignment to duty recognizes that the Auxiliary member is acting in an official capacity while performing official duties as set forth in this Handbook. Refer to reference (b) for additional assignment to duty information.
	Auxiliarists shall not verify any aid to navigation without the proper training by the Coast Guard Auxiliary and subsequent tasking by the Coast Guard.
	Any orders issued shall be in accordance with reference (b).
A.5. Verifications	Members certified Aids to Navigation Verifier – with PQS (AV-PQS) are authorized to verify PATON (Class I, Class II, and Class III private aids), survey bridges, and submit updates to Charts and Nautical Publications.
	Refer to reference (c) and (d) for additional information and details.
A.6. Reports	Certified AV-PQS members shall:
	a. Report verifications and discrepancies of private aids and surveys of bridges on the appropriate National Aids to Navigation Report Forms, or the locally generated form(s) approved by the District (dpw).
	b. Report their mission hours, mission type, and numbers of discrepancies/verifications in AUXDATA II following the guidance of the Information Technology Group's "AUXDATA II How to Guides and Instructions for Members," available on the National IT Directorates website at: https://wow.uscgaux.info/content.php?unit=it-group.
NOTE ☞	The Coast Guard Auxiliary should not be used to verify private aids to navigation that do not have a PATON permit issued by the Coast Guard or are not otherwise authorized by the District (dpw) to be verified. Non permitted Aids may be reported.

Section B.   Training, Qualification and Certification

Introduction

This section provides an overview of the training, qualification process and certification requirements.

In this Section

This section contains the following information:

Title	Page
Training	2-4
Initial Qualification Requirements	2-4
Final Certification	2-4

B.1. Training

DIRAUX shall be responsible for approving an appropriate training program developed and implemented by the Auxiliary Prevention Directorate, Navigation Systems.

B.2. Initial Qualification Requirements

1. The qualification process shall be determined by the DIRAUX.

2. The Aids to Navigation Verifier candidate will be required to complete the current Auxiliary Aids to Navigation Verifier Performance Qualification Standard (PQS) in accordance with Enclosure 1 and any other DIRAUX required training.

B.3. Final Certification

Candidates who complete the qualifications requirements in paragraph B.2. above will be certified by the DIRAUX in AUXDATA II using the following Qualification code: **AV-PQS**.

Section C.   Annual Currency and Recertification

Introduction

This section provides an overview of the required annual currency maintenance and recertification requirements.

In this Section

This section contains the following information:

NOTE ☞

> The annual currency cycle is from 01 January to 31 December of each year.

C.1. Annual Currency Maintenance Requirements

Below are the annual currency maintenance requirements for AV-PQS:

1. Current in AUXCT
2. Current with annual TCT/RM Refresher (not to exceed 15 months).

As well as the above requirements, certified AV-PQS members shall complete no less than one (1) hour conducting any combination of the following:

1. ATON verification at the request of the Coast Guard (Mission Code 30)
2. PATON verification (Mission Code 31)
3. Bridge Survey (Mission Code 32)
4. Chart/Coast Pilot Updates (Mission Code 33), or
5. ATON Program Training: (Mission Code 34). Below are some examples of ATON Program Training.
   a. P/ATON Workshop
   b. AUX-06 C-School
   c. Any P/ATON program approved training.

These requirements must be completed each calendar year, and their completion must appear in the member's record in AUXDATA II.

C.2. Annual Currency Documentation

AUXDATA II will automatically review, process, and confirm that members have met the annual currency maintenance requirements in paragraph C.1. above.

C.3. Required Yearly Requirement (REYR) Status	If an AV-PQS member fails to meet the annual currency maintenance requirements in paragraph C.2. above during a calendar year, the member will be placed in to REYR in AUXDATA II
C.4. Recertification Requirements	Member's in REYR status can be recertified as an AV-PQS by completing any deficient currency maintenance requirements in paragraph C.2. above. Members will still be required to meet the current annual maintenance requirements in paragraph C.2. above. once removed from REYR.

Members in REYR status do not automatically revert to certified status in AUXDATA II upon completion of the annual currency maintenance requirements. An email must be submitted to the DIRAUX from the Flotilla Staff Office – Navigation Systems (FSO-NS), Flotilla Staff Office – Member Training (MT) (at any level), or Flotilla Commander (FC) stating (1) that the member has completed the deficient requirement(s) and (2) request that the member be re-instated.

Members who have been in REYR status for a period of five years or more will have their AV-PQS qualification removed and must requalify as an AV-PQS in accordance with Section B, paragraph B.2. to regain qualification.

CHAPTER 3
Servicing Federal Aids to Navigation

Introduction	This chapter explains the qualification, certification, recertification, and annual currency requirements of Auxiliarists in servicing Federal Aids to Navigation.

In this Chapter   This chapter contains the following information:

Section A.   Program Administration

Introduction

This section discusses the administration requirements for the Coast Guard Auxiliary to assist or support Coast Guard ATON units in servicing Federal Aids to Navigation.

In this Section

This section contains the following information:

A.1. General

To effectively employ the Auxiliary in this program, a clear understanding of the Auxiliarist's capabilities and ATON unit's needs are required to promote the greatest efficiency in mission accomplishment.

A.2. Procedures

To make this program a success, the following must be done:

a. The Auxiliary and the District Waterways Management (dpw) and ATON unit must work together and define expectations, capabilities, operational procedures, and channels of communications.

b. District Waterways Management (dpw) must coordinate with their ATON units to publish the necessary policy and procedures for training and qualification to facilitate the employment of the Auxiliary.

c. The existing organization for the Coast Guard's Aids to Navigation Program may be augmented or supported with Auxiliarists assisting at the different levels (unit, sector, and district). An Auxiliarist's experience and capabilities must be used to decide where that Auxiliarist best meets the Coast Guard's needs. Supervision of the Auxiliarists will be accomplished by the Coast Guard personnel at the level being assisted.

A.3. Employment	ATON units may employ only Aid to Navigation Technician (ATN-AT) or dpw Trained Minor Aid Technician (ATN-TT) certified Auxiliarists to assist or support them in servicing federal aids to navigation in the following areas:

1. Independent service of those minor federal aids to navigation as directed by the ATON unit Commanding Officer or Officer in Charge (CO/OIC).

2. Assist ATON unit personnel with routine servicing of any federal aid to navigation.

3. Assist underway Coast Guard boats and cutters in servicing any federal aid to navigation.

4. Augment and assist an ATON unit with communications and administration. (AV-PQS certified members may perform this as well.)

A.4. Assignment to Duty and Orders	Assignment to duty recognizes that the Auxiliary member is acting in an official capacity while performing official duties as set forth in this Handbook. Refer to reference (b) for additional assignment to duty information.

Auxiliarists shall not service any federal aid to navigation without the proper training and subsequent tasking by the Coast Guard.

Any orders shall be issued in accordance with reference (b).

A.5. Reports	Certified Aid to Navigation Technician members shall:

1. File all reports and maintain all records deemed necessary by the Auxiliary, (dpw), and the appropriate ATON unit. All required reports and forms shall be submitted per current District instructions.

2. Report their mission hours and mission type in AUXDATA II following the guidance of the Information Technology Group's "AUXDATA II How to Guides and Instructions for Members," available on the National IT Directorates website at: https://wow.uscgaux.info/content.php?unit=it-group

Section B. Training, Qualification and Certification

Introduction

This section provides an overview of the training, qualification, and certification requirements.

In this Section

This section contains the following information:

B.2. General

District Waterways Management (dpw) is responsible for the proper training, qualification, and certification of Auxiliarists. To authorize Auxiliarists to assist and support ATON units in servicing federal aids to navigation.

An ATON unit or District Waterways Management (dpw) must first identify a need for an auxiliary member to be trained as an Aid to Navigation Technician.

District Waterways Management (dpw) must ensure the following requirements below are met.

B.3. Initial Qualification Requirements

Auxiliarists are required to meet the same training, currency, and competency standards as the active duty and reserve personnel performing the same job.

The two currently attainable active duty Aid to Navigation Technician certifications for Auxiliarists are:

- Aid to Navigation Technician (ATN-AT)
- dpw Trained Minor Aid Technician (ATN-TT)

Members shall submit course completion certification to their DIRAUX office for upload to their AUXDATA II record.

NOTE ✍

Auxiliarists, who are certified must understand that they are authorized to independently service only those minor aids as directed by the ATON unit CO/OIC. No Auxiliarist will be authorized to independently service federal aids with complex signal/power systems such as lighthouses, complex range lights, RACONs, etc.

B.4. Final Certification	Auxiliary members certifying as an ATN-AT or ATN-TT, must have a copy of their certification memorandum sent from the ATON unit CO/OIC to the Auxiliarist member's DIRAUX.
	The DIRAUX will document certification of the member in AUXDATA II using the following Qualification code: **Aid to Navigation Technician**.
	The certification memorandum shall also be uploaded to the member's record in AUXDATA II.
	A copy of the certification memorandum should be sent to the member's DSO-NS and FC.

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Enclosure 1
Aids to Navigation Verifier (AV)
Performance Qualification Standard (PQS)

Introduction

This PQS is one section of the trainee's PQS "On the Job Training" (OJT) instructions. It is your OJT guide to qualification as an Auxiliary Aids to Navigation Verifier (AV-PQS). It is the trainee's responsibility to document completion of unit training items.

Verifying Officers shall:

(01) Be certified as an Auxiliary Aids to Navigation Verifier – with PQS (AV-PQS) or equivalent if an active duty member. In District 7, an Auxiliarist must be an NS Officer or Verifier expressly authorized by the DSO-NS to sign off on PQS tasks.

(02) Be experienced and have demonstrated the ability to evaluate, instruct, and observe other personnel in the performance of task criteria.

(03) Enter their title, name, and initials in the Record of Verifying Officers section before making entries in your workbook.

(04) Observe the trainee satisfactorily complete each task and document such with date and initials in the appropriate space provided in this PQS. It may be necessary to perform a task several times.

(05) Not give credit for any task that is not performed satisfactorily.

(06) Ensure all tasks are performed without prompting or use of references unless otherwise specified.

When you have completed all of the items required for this qualification, submit your completed PQS to your DIRAUX via the DSO-NS or procedures established in your District. Your DIRAUX will enter your qualification into AUXDATA II using Qualification Code "AV-PQS."

NOTE ☞

> No task may be waived. This PQS is the MINIMUM national requirement for AV-PQS qualification.

References: The following references will aid you in completing the tasks in this PQS. (NOTE: *Links to on-line information accurate as of the date of revision only.*) Many of these references are also available as links on the Auxiliary's National Prevention Directorate, Navigation Systems' website. https://wow.uscgaux.info/content.php?unit=p-dept

*For Area of Operations.

- U.S. Chart No. 1 Symbols, Abbreviations and Terms used on Paper and Electronic Navigational Charts.
  https://www.nauticalcharts.noaa.gov/publications/us-chart-1.html
- NOAA ASSIST for updates to NOAA charts and Coast Pilot
  https://www.nauticalcharts.noaa.gov/customer-service/assist.html
- NOAA charts of local AOR. (if applicable)
  https://nauticalcharts.noaa.gov/
- USACE charts of local AOR. (if applicable) https://ienccloud.us/
- Bridge Notices https://www.navcen.uscg.gov/bridge-notices
- USCG Light Lists. https://www.navcen.uscg.gov/light-lists
- *US Coast Pilot. https://nauticalcharts.noaa.gov/publications/coast-pilot/index.html
- *Local Notice to Mariners (LNM).
  https://www.navcen.uscg.gov/local-notices-to-mariners-main
- Tide tables/Tide Predictions – https://tidesandcurrents.noaa.gov/
- Coast Guard Auxiliary Aids to Navigation Program Handbook, 16500.16 (*series*) https://wow.uscgaux.info/content.php?unit=BX-GROUP&category=guides-and-handbooks
- Aids To Navigation Manual-Administration, COMDTINST M16500.7*(series)* https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-C4IT-CG-6/The-Office-of-Information-Management-CG-61/About-CG-Directives-System/Commandant-Instruction-Manuals/smdsearch2823/16500/ or https://media.defense.gov/2023/Jan/24/2003148898/-1/-1/0/CIM_16500_7A.PDF
- Bridge Program, COMDTINST M16590.5 *(series)* See dcms link above
- BSX Policy Letter 19-01 dated 24 Jan 2024
- 33 CFR Part 66 Private Aids to Navigation
  https://www.ecfr.gov/current/title-33/chapter-I/subchapter-C/part-66
- 33 CFR Part 114 General
  https://www.ecfr.gov/current/title-33/chapter-I/subchapter-J/part-114
- 33 CFR Part 117 Drawbridge Operation Regulations
  https://www.ecfr.gov/current/title-33/chapter-I/subchapter-J/part-117

- 33 CFR Part 118 Bridge Lighting and Other Signals
  https://www.ecfr.gov/current/title-33/chapter-I/subchapter-J/part-118
- Standard Operating Procedure (SOP) for local area
- USCG Auxiliary National Short-Range Aids to Navigation Training Guide
- Nautical Chart Updating Training Guide

Forms:

The following forms (current edition) will aid you in completing the tasks in this PQS.

- Aids to Navigation Report (ANSC-7054) and District equivalent (if applicable)
- Private Aids to Navigation Application (CG-2554)

RECORD OF VERIFYING OFFICERS

Member Name:		Member Number:	
Title	**Verifying Officer's (VO) Name**		**Initials**

RECORD OF MAJOR TASKS COMPLETED

Task Number	Major Tasks	Date Completed
1.0	Charts and Nautical Publications	
2.0	US Aids to Navigation System	
3.0	Private Aids to Navigation (PATON)	
4.0	Aids to Navigation Discrepancies	
5.0	Private Aids to Navigation (PATON) Documentation	
6.0	Bridges	
7.0	Private Aids to Navigation (PATON) Certification and Currency Maintenance	
8.0	ENC Charts – Seventh District	
9.0	Locating Aids with GPS – Seventh District	

RECORD OF COMPLETION

Member Name:		Member Number:	
Training Prerequisites (Must be recorded in AUXDATA II)		**Date**	**Member Training Staff Officer Signature**
A. Completed AUXCT (Core Training), is in good standing		_____	
B. Be in BQ or AX status.		_____	
C. Completed Introduction to Risk Management Course (100202) and facilitated discussion.		_____	
D. Completed TCT Refresher Course and is in good standing. Recorded in AUXDATA II. (ONLY REQUIRED IF GREATER THAN 15 MONTHS SINCE LAST TCT/RM TRAINING.)		_____	
E. Completed of the following courses: 1) ICS 100 2) ICS 700		_____ _____	

All PQS requirements have been satisfactorily completed by the applicant as indicated below:

_____

TASK	Date	VO Initial
A. Completion of Auxiliary Aids to Navigation Verifier AV- PQS	_____	_____
B. Successful completion of any District and/or Sector specific requirements. This includes an underway check ride to perform and document inspecttions.	_____	_____
C. DSO-NS recommendation for certification as a USCG Auxiliary Aids to Navigation Verifier (AV-PQS)	_____	_____
D. Documentation sent to DIRAUX by DSO-NS for approval and certification in AUXDATA II.	_____	_____

1.0   Charts and Nautical Publications

Member Name:		Member Number:		
Task Number	**AUX-AV Task**		**Date**	**Initial**
1.1	State the purpose of Chart No. 1		_____	_____
1.2	Identify horizontal datum of the nautical chart and GPS equipment.		_____	_____
1.3	Identify the basic parts, symbols, and abbreviations found on a chart or Electronic Navigation Chart (ENC) system (or equivalent item) to include: a. Longitude scale / measurement tool) b. Latitude scale c. Nautical mile scale d. Depth curves e. General identification (Title block) f. Vertical datum g. Compass rose h. Symbol for buoys i. Lighted vs. unlighted buoy j. Nominal range of light k. Approximate position l. Private Aid m. Wreck		_____	_____
1.4	State the purpose of the USCG Light List and explain the aid specific information provided.		_____	_____
1.5	Identify the Volume and Chapters of the United States Coast Pilot that apply to trainee's AOR.		_____	_____
1.6	State the purpose of the Local Notice to Mariners.		_____	_____
1.7	Identify and state the use of all Sections including the following Sections of the Local Notice to Mariners: a. Section II Discrepancies P/ATONs b. Section III Temporary Changes c. Section IV Chart Corrections d. Section VIII Light List Corrections e. Bridge Section		_____	_____
1.8	Explain the method of reporting chart and Coast Pilot corrections to NOAA and U.S. Army Corps of Engineers		_____	_____

2.0 US Aids to Navigation System

Task Number	AUX-AV Task	Date	Initial
	Member Name: **Member Number:**		
2.1	Identify the two IALA regions and state the region applicable to the trainee.	_____	_____
2.2	State the characteristics including color, shape, number or letters, and light color of the following aids: a. Starboard lateral aid b. Port lateral aid c. Preferred channel aid d. Safe water aid e. Isolated danger mark f. Special purpose aids g. Regulatory marks h. Wreck i. Ranges j. Port and starboard lateral aids (Western Rivers System) k. Port and starboard crossing daybeacons (Western Rivers System) l. Mile boards (Western Rivers System) m. Port and starboard lateral aids (Intracoastal Waterway)	_____	_____
2.3	State the characteristics of the following lights: a. Fixed b. Occulting c. Isophase d. Flashing e. Quick Flashing f. Morse Code "A" g. Group Flashing h. Composite Group Flashing	_____	_____
2.4	Demonstrate the ability to use a stopwatch or other appropriate and accurate timing device for timing a lighted aid	_____	_____

3.0   Private Aids to Navigation (PATON)

Member Name:		Member Number:		
Task Number	**AUX-AV Task**		**Date**	**Initial**
3.1	Describe the documentation from which the CG and Auxiliary obtain the authority for Private Aids to Navigation.		_____	_____
3.2	Explain the penalty for failure to comply with PATON regulations.		_____	_____
3.3	Explain the difference among the following types of PATON: a. Class I b. Class II c. Class III		_____	_____
3.4	Explain how often the following types of PATON are required to be verified: a. Class I b. Class II c. Class III		_____	_____
3.5	Explain the types of PATON that will usually appear on charts and in the Light List.		_____	_____
3.6	Correcting the depth of water for the height of tide or river/lake level. a. Explain the primary impacts on tide heights, and where to obtain predictions. b. Explain the seasonal and weather impacts on river and lake water levels, and where to obtain water level information. c. Explain how the depth reading from an echo sounder is corrected.		_____	_____
3.7	GPS / Electronic Chart System (ECS) set up: a. Verify the position confirms to chart datum. b. Demonstrate understanding of the need for position accuracy (Estimated Position Error) and other contributing factors. c. Describe how to configure GPS to read True heading OR how to correct for variation.		_____	_____

4.0   Aids to Navigation Discrepancies

Task Number	AUX-AV Task	Date	Initial
Member Name:		**Member Number:**	
4.1	State the definition of an aid discrepancy.	_____	_____
4.2	Using the Light List, identify the advertised characteristics of two (2) aids provided by the verifying officer.	_____	_____
4.3	Define the following terms: a. Missing b. Adrift c. Extinguished d. Burning dim e. Improper color f. Improper shape of buoy or dayboard g. Improper characteristic h. Off station i. Damaged j. Destroyed k. Left Descending Bank l. Right Descending Bank	_____	_____
4.4	Explain the procedure if you encounter the following: a. "Non-permitted" Aids to Navigation b. Areas where additional Federal Aids may be required.	_____	_____
4.5	Demonstrate the ability to check an aid to determine: a. If the aid is as described in Light List information and complies with IALA. b. That the aid is properly represented on the chart. c. That the lighted aid shows proper timing & characteristics. d. That the mile boards and/or dayboards are in good condition. e. If the structure appears sound. f. Visibility of the aid from all sectors. g. Retro-reflective tape condition.	_____	_____

5.0   Private Aids to Navigation (PATON) Documentation

Member Name:		Member Number:		
Task Number	**AUX-AV Task**		**Date**	**Initial**
5.1	Complete two 7054 Aids to Navigation Reports using information provided by the Verifying Officer. If district has its own form, complete that form as well.		_____	_____
5.2	Using the 7054 Aids to Navigation Report or District equivalent form identify all discrepancies for a PATON with information provided by the Examiner.		_____	_____
5.3	Using the 7054 Aids to Navigation Report, or District equivalent form report a "non-permitted" PATON with information provided by the Examiner.		_____	_____
5.4	Identify the following Auxiliary specific documentation and its use to report "Navigation Systems" Missions including: • 03 • 30 • 31 • 32 • 33 • 34 • 99B a. ANSC-7030 Activity Report or AUXDATA II Activity Log Entry		_____	_____

6.0   Bridges

Task Number	AUX-AV Task	Date	Initial
6.1	Describe bridge protective systems.	_____	_____
6.2	Describe bridge lighting /marking systems and requirements for: a. Fixed bridges (33 CFR Part 118.65) b. Swing bridges (118.70) c. Single-opening bridges (118.75) d. Bascule bridges (single and double leaf) (118.80) e. Vertical Lift bridges (118.85) f. Retroreflective panels (118.100) g. Daymarks and lateral lights (118.110) h. Radar reflectors/racons/fog signals (118.120 and 118.130) i. Specific bridges in your area (33 CFR Part 117 subpart B)	_____	_____
6.3	Describe bridge vertical clearance gauge and use (117.47; 118.160).	_____	_____
6.4	Describe some common bridge and protective system discrepancies.	_____	_____
6.5	Describe how to report an extinguished or dim light, or any other bridge discrepancy.	_____	_____
6.6	Demonstrate use of ANSC-7054, 7055, or District equivalent form to make a bridge report.	_____	_____
6.7	Describe candlepower requirements for lights against background lighting as established in 33 CFR 118.60.	_____	_____
6.8	In addition to lighting, describe other markings used to highlight the navigation spans.	_____	_____

Member Name: **Member Number:**

7.0 Private Aids to Navigation (PATON) Certification

Member Name:		Member Number:		
Task Number	**AUX-AV Task**		**Date**	**Initial**
7.1	State the tasks necessary to maintain currency as an AV-PQS in accordance with Chapter 2, Section C in the Coast Guard Auxiliary Aids to Navigation Program Handbook, 16500.16.		_____	_____
7.2	State any other District requirements for certification and/or currency as an AV-PQS.		_____	_____
7.3	Perform two verifications and complete associated paperwork. One of the verifications must be a lighted aid or survey of a lighted bridge.		_____	_____
7.5	Seventh District requires that two day and two night aid verifications be performed during an underway check ride. (If night verifications cannot be done underway, the night portion may be done from shore.) The verifier will demonstrate: 1. The ability to plan the mission. 2. The ability to direct the coxswain during the verifications. 3. The use of equipment to determine position and depth. 4. The ability to correct depth for tide. 5. The ability to take proper photographs. 6. Familiarity with the reporting requirements in the Coast Guard Sector or ANT unit.			

8.0 ENC Charts – Seventh District

Member Name:		Member Number:		
Task Number	**AUX-AV Task**		**Date**	**Initial**
8.1	Define RNC.			
8.2	Explain how RNCs were created.			
8.3	What is the horizontal datum of an RNC?			
8.4	Define ENC.			
8.5	What is the horizontal datum of an ENC?			
8.6	Explain the key differences between RNC and ENC.			
8.7	Define and explain Zone of Confidence.			
8.8	Explain the ENC numbering system.			
8.9	What is the orientation of an ENC.			
8.10	What is compilation scale?			
8.11	Define and explain overzooming.			
8.12	Where is the scale on an ENC?			
8.13	Explain the query function.			
8.14	What are the units of depth on an ENC?			
8.15	Where are coordinates shown on an ENC?			
8.16	Identify the following ENC Paper Chart symbols 1. Unlighted buoy 2. Lighted buoy 3. Beacon 4. Lighted Beacon 5. Nominal range of a light			

Task Number	AUX-AV Task	Date	Initial
Member Name:	**Member Number:**		

8.17	Identify the following ENC Simplified Chart symbols
	    1 Unlighted buoy
	    2 Lighted buoy
	    3 Beacon
	    4 Lighted Beacon
	    5 Nominal range of a light
		_____	_____

8.18	Identify the following ENC Proprietary Chart symbols using any proprietary chart.
	    1 Unlighted buoy
	    2 Lighted buoy
	    3 Beacon
	    4 Lighted Beacon
	    5 Nominal range of a light
		_____	_____

8.19	Explain how to determine direction and distance on an ENC.	_____	_____

8.0 Locating Aids with GPS – Seventh District

Member Name:		Member Number:		
Task Number	**AUX-AV Task**		**Date**	**Initial**
9.1	What are GNSS? State the US version.			
9.2	What are the main sources of GNSS error?			
9.3	What are SBAS? State the US version.			
9.4	What errors does SBAS not correct?			
9.5	Explain GPS receiver start states.			
9.6	What start state should be used for verifications?.			
9.7	What datum is used for aid verification?			

9.8	What percentage of measurements fall within these circles?
	  a. CEP
	  b. DRMS
	  c. 2DRMS			

9.9	What is the USCG 2DRMS standard?			
9.10	Explain the position tolerance for fixed aids.			
9.11	Where should the receiver be located for fixes?			
9.12	What is the correct orientation of the receiver?			
9.13	What is the recommended soak time?			
9.14	Error values of recreational GPS are based on what data?			
9.15	State three ways to check GPS accuracy.			