

U.S. Department of
Homeland Security

United States
Coast Guard



U. S. Coast Guard Auxiliary



Auxiliary Aids to Navigation (ATON) Verifier

Performance Qualification Standard

Revision Date: 14 July 2011

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Coast Guard Auxiliary Training Guide

Aids to Navigation (ATON) Verifier Performance Qualification Standard

Qualification Code: AV

INTRODUCTION

This workbook is one section of your personal 'on the job training' (OJT) manual. It is your OJT guide to qualification as an Auxiliary Aids to Navigation (ATON) Verifier. It is your responsibility to document completed unit training items.

Verifying Officers shall be experienced and qualified personnel who have demonstrated the ability to evaluate, instruct, and observe other personnel in the performance task criteria.

Verifying Officers must be certified in the competencies for which they are to verify. In other words, they must hold qualification as an Auxiliary ATON Verifier or equivalent active duty qualification.

Verifying Officers must enter their title, name, and initials in the Record of Verifying Officers section before making entries in your workbook.

A Verifying Officer shall observe your successful performance of each task and document such with date and initials in the appropriate space provided in this booklet. It may be necessary to perform a task several times. The Verifying Officer will not give credit for any task that is not performed satisfactorily. All tasks must be performed without prompting or use of references unless otherwise specified.

No task may be waived. This qualification is the MINIMUM national requirement for qualification.

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 issue a Letter of Designation and enter your qualification into AUXDATA.

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Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPLID _____

RECORD OF VERIFYING OFFICERS		
Title	Verifying Officer's Name	Initials

RECORD OF MAJOR TASKS COMPLETED		
Task Number	Major Tasks	Date Completed
1.0	Auxiliary ATON Verifier – Charts and Nautical Publications	
2.0	Auxiliary ATON Verifier - US Aids to Navigation System	
3.0	Auxiliary ATON Verifier - Private Aids to Navigation (PATON)	
4.0	Auxiliary ATON Verifier - Aids to Navigation Discrepancies	
5.0	Auxiliary ATON Verifier - Private Aids to Navigation (PATON) Documentation	
6.0	Auxiliary ATON Verifier- Bridges	
7.0	Auxiliary ATON Verifier- Private Aids to Navigation (PATON) Certification and Currency Maintenance	

Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPLID _____

RECORD OF COMPLETION

Training Prerequisites	Date	Member Training Staff Officer Signature
A. Completion of the following Auxiliary Training requirements:		
1. 8 hour Team Coordination Training (TCT)		
B. Completion of the following courses:		
1. ICS 100		
2. ICS 700		
C. BQ or AX membership status		

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

TASK	DATE	Verifying Officer
D. Completion of Auxiliary ATON Verifier PQS Workbook.		
E. Successful completion of any District/Sector specific requirements		
F. DSO-NS recommendation for certification as a USCG Auxiliary Aids to Navigation (ATON) Verifier		
G. Documentation sent to DIRAUX by DSO-NS for approval and certification		

Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPID _____

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.)

- *National Ocean Service (NOS) Chart No. 1 Nautical Chart Symbols Abbreviations and Terms* <http://www.nauticalcharts.noaa.gov/staff/chartspubs.html>
- *NOAA or USACE charts of local AOR*
NOAA: <http://www.nauticalcharts.noaa.gov/mcd/OnLineViewer.html>
CoE: <http://www.ndc.iwr.usace.army.mil/navchart/navindexmap.htm>
- *USCG Light Lists* <http://www.navcen.uscg.gov/>
- *US Coast Pilot:* <http://www.nauticalcharts.noaa.gov/mcd/OnLineViewer.html>
- *Local Notice to Mariners (LNM)* <http://www.navcen.uscg.gov/>
- 33 CFR 66
- 33 CFR 117
- 33 CFR 114-118
- *Aids to Navigation Manual-Administration, COMDTINST 16500.7 (Series)*
<http://www.uscg.mil/auxiliary/publications/default.asp>
- *ANSC Form 7054 – Aids to Navigation Report and District equivalent, if any*
- *NS-7054 Form – Aids to Navigation Report (Excel)*
- *Tide tables/Tide Predictions –* <http://tidesandcurrents.noaa.gov/> or “Tides and Currents” Screen on a GPS.
- *Standard Operating Procedure (SOP) for local area*
- *Auxiliary ATON Program, COMDTINST 16500.16 (series)*
- *CG Form CG2554 – Private Aids to Navigation Application*
- *Bridge Administration Manual, COMDTINST M16590.5 (series)*
- *National ATON and Chart Updating Study Guide*
- *USCG Auxiliary Federal Aids to Navigation Study Guide.*

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Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPID _____

<u>Task Number</u>	<u>AUX-AV Task</u>	<u>Date Completed</u>	<u>Verifying Officer's Initials</u>
1.0 Auxiliary ATON Verifier - Charts and Nautical Publications			
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 to include:		
	a. Longitude scale	_____	_____
	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 section of the United States Coast Pilot that applies to trainee's AOR.	_____	_____
1.6	State the purpose of the Local Notice to Mariners.	_____	_____
1.7	Identify the following parts of the Local Notice to Mariners:		
	a. Chart corrections	_____	_____
	b. Light List Corrections	_____	_____

Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPID _____

<u>Task Number</u>	<u>AUX-AV Task</u>	<u>Date Completed</u>	<u>Verifying Officer's Initials</u>
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2.0 Auxiliary ATON Verifier - US Aids to Navigation System

2.1	Identify the two IALA regions for the United States and state the region applicable to the trainee.	_____	_____
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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 buoys	_____	_____
	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	_____	_____
	g. Group Flashing	_____	_____
	h. Composite Group Flashing	_____	_____

2.4	Demonstrate the ability to use a stopwatch for timing a lighted aid	_____	_____
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Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPID _____

<u>Task Number</u>	<u>AUX-AV Task</u>	<u>Date Completed</u>	<u>Verifying Officer's Initials</u>
3.0 Auxiliary ATON Verifier - Private Aids to Navigation (PATON)			
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 between the following types of PATONs: a. Class I b. Class II c. Class III	_____	_____
3.4	Explain how often the following types of PATONs 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 concept of "Height of Tide at any time." b. Explain how to determine the tides or depth of water for the trainee's area c. Explain how to read a charted depth on a chart and how it compares to the reading from an electronic echo sounder. d. Explain how the depth reading from an echo sounder is corrected	_____	_____

Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPID _____

<u>Task Number</u>	<u>AUX-AV Task</u>	<u>Date Completed</u>	<u>Verifying Officer's Initials</u>
3.7	<u>GPS Set Up</u> a. Configure GPS for local chart datum b. Explain the difference between standard and WAAS-enabled GPS, and why WAAS is preferred when recording a position. c. Describe how to configure GPS to read True heading OR how to correct for variation.	_____ _____ _____	_____ _____ _____
4.0	Auxiliary ATON Verifier - Aids to Navigation Discrepancies		
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 m. Center Span Light n. Margin Light	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
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	_____ _____	_____ _____

Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPID _____

<u>Task Number</u>	<u>AUX-AV Task</u>	<u>Date Completed</u>	<u>Verifying Officer's Initials</u>
4.5	Demonstrate the ability to check an Aid to determine: <ol style="list-style-type: none"> a. If the Aid is as described in Light List information and complies with IALA. b. That the lighted Aids show proper timing & characteristics c. That the Mile Boards and Dayboards are in good condition. d. If the structure appears sound. e. Visibility of the Aid from all sectors f. Retro-reflective tape condition g. Mile Board is in accordance with USACE chart (Western Rivers) 	_____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____
5.0 Auxiliary ATON Verifier - Private Aids to Navigation (PATON) Documentation			
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: <ol style="list-style-type: none"> a. ANSC-7030 Activity Report (Individual) 	_____ _____	_____ _____
6.0 Auxiliary ATON Verifier - Bridges			
6.1	Describe bridge protective system	_____ _____	_____ _____

Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPID _____

<u>Task Number</u>	<u>AUX-AV Task</u>	<u>Date Completed</u>	<u>Verifying Officer's Initials</u>
6.2	Describe bridge lighting /marking systems and requirements for: a. Fixed bridges (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. Bridge protective systems	_____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____
6.3	Describe bridge vertical clearance gauge and use	_____	_____
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 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.	_____	_____

Auxiliary Aids to Navigation (ATON) Verifier

Name _____ EMPID _____

<u>Task Number</u>	<u>AUX-AV Task</u>	<u>Date Completed</u>	<u>Verifying Officer's Initials</u>
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7.0 Auxiliary ATON Verifier -Private Aids to Navigation (PATON) Certification and Currency Maintenance

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|-----|---|-------|-------|
| 7.1 | State the tasks necessary in your District to maintain currency as an ATON Verifier | _____ | _____ |
| 7.2 | Perform two daylight verifications | _____ | _____ |
| 7.3 | Perform two night verifications | _____ | _____ |

