



16794

## MEMORANDUM

14 Jul 2011

From:   
M. D. Rizzo CAPT  
COMDT (CG-542)

Reply to: BMCM T.J. Hudson  
Attn of: (202) 372-1270

To: Distribution

Subj: AUXILIARY AIDS TO NAVIGATION VERIFIER PERFORMANCE  
QUALIFICATION STANDARD

Ref: (a) Coast Guard Auxiliary Aids to Navigation Program, COMDTINST 16500.16  
(series)

1. PURPOSE. This publication is designed and intended for use as the student Performance Qualification Standard (PQS) for Aids to Navigation (ATON) Verifier. It is published for instructional and training purposes only and is not policy material.
2. ACTION. Elected and appointed leaders and program managers at all levels of the Auxiliary organization shall ensure Auxiliarists who oversee, direct, or participate in Auxiliary operations and training adhere to this publication's provisions.
3. PUBLICATION AFFECTED. None.
4. DISCUSSION. This PQS provides the minimum knowledge base required and must be completed for Coast Guard Auxiliarist's to qualify as an Auxiliary ATON Verifier (AV). Auxiliarist who currently possess the AV designation are not required but are encouraged to complete this PQS. Previously qualified members should familiarize themselves with the tasks required in this PQS. This is a newly created PQS and does not replace or supersede any existing earlier text materials.
5. SUMMARY OF CHANGES. None.

#

Dist: ANSC  
NEXCOM

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<br>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<br/>Number</u> | <u>AUX-AV<br/>Task</u>  | <u>Date<br/>Completed</u> | <u>Verifying<br/>Officer's Initials</u> |
|------------------------|---|---------------------------|---|
| <b>1.0</b>             | <b>Auxiliary ATON Verifier - Charts and Nautical Publications</b>                           |                           |   |
| 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</u><br><u>Number</u> | <u>AUX-AV</u><br><u>Task</u> | <u>Date</u><br><u>Completed</u> | <u>Verifying</u><br><u>Officer's Initials</u> |
|------------------------------|------------------------------|---------------------------------|---|
|------------------------------|------------------------------|---------------------------------|---|

### 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.  | _____  | _____  |
| 2.2 | State the characteristics including color, shape, number or letters, and light color of the following aids: <ul style="list-style-type: none"> <li>a. Starboard lateral aid</li> <li>b. Port lateral aid</li> <li>c. Preferred channel aid</li> <li>d. Safe water aid</li> <li>e. Isolated danger mark</li> <li>f. Special purpose buoys</li> <li>g. Regulatory marks</li> <li>h. Wreck</li> <li>i. Ranges</li> <li>j. Port and starboard lateral aids (Western Rivers System)</li> <li>k. Port and starboard crossing daybeacons (Western Rivers System)</li> <li>l. Mile boards (Western Rivers System)</li> <li>m. Port and starboard lateral aids (Intracoastal Waterway)</li> </ul> | _____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ | _____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ |
| 2.3 | State the characteristics of the following lights: <ul style="list-style-type: none"> <li>a. Fixed</li> <li>b. Occulting</li> <li>c. Isophase</li> <li>d. Flashing</li> <li>e. Quick Flashing</li> <li>f. Morse Code</li> <li>g. Group Flashing</li> <li>h. Composite Group Flashing</li> </ul>  | _____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____   | _____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____   |
| 2.4 | Demonstrate the ability to use a stopwatch for timing a lighted aid  | _____  | _____  |

## Auxiliary Aids to Navigation (ATON) Verifier

Name \_\_\_\_\_ EMPID \_\_\_\_\_

| <u>Task<br/>Number</u> | <u>AUX-AV<br/>Task</u> | <u>Date<br/>Completed</u> | <u>Verifying<br/>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:<br><div style="margin-left: 20px;">a. Class I</div> <div style="margin-left: 20px;">b. Class II</div> <div style="margin-left: 20px;">c. Class III</div>   | _____ | _____ |
| 3.4 | Explain how often the following types of PATONs are required to be verified:<br><div style="margin-left: 20px;">a. Class I</div> <div style="margin-left: 20px;">b. Class II</div> <div style="margin-left: 20px;">c. Class III</div>  | _____ | _____ |
| 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.<br><div style="margin-left: 20px;">a. Explain the concept of "Height of Tide at any time."</div> <div style="margin-left: 20px;">b. Explain how to determine the tides or depth of water for the trainee's area</div> <div style="margin-left: 20px;">c. Explain how to read a charted depth on a chart and how it compares to the reading from an electronic echo sounder.</div> <div style="margin-left: 20px;">d. Explain how the depth reading from an echo sounder is corrected</div> | _____ | _____ |

## Auxiliary Aids to Navigation (ATON) Verifier

Name \_\_\_\_\_ EMPID \_\_\_\_\_

| <u>Task<br/>Number</u> | <u>AUX-AV<br/>Task</u>  | <u>Date<br/>Completed</u> | <u>Verifying<br/>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.                                | _____                     | _____                                   |
| <b>4.0</b>             | <b>Auxiliary ATON Verifier - Aids to Navigation Discrepancies</b>   |                           |   |
| 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<br/>Number</u> | <u>AUX-AV<br/>Task</u>  | <u>Date<br/>Completed</u> | <u>Verifying<br/>Officer's Initials</u> |
|------------------------|---|---------------------------|---|
| 4.5                    | Demonstrate the ability to check an Aid to determine: <ul style="list-style-type: none"> <li>a. If the Aid is as described in Light List information and complies with IALA.</li> <li>b. That the lighted Aids show proper timing &amp; characteristics</li> <li>c. That the Mile Boards and Dayboards are in good condition.</li> <li>d. If the structure appears sound.</li> <li>e. Visibility of the Aid from all sectors</li> <li>f. Retro-reflective tape condition</li> <li>g. Mile Board is in accordance with USACE chart (Western Rivers)</li> </ul> | _____                     | _____                                   |
| <b>5.0</b>             | <b>Auxiliary ATON Verifier - Private Aids to Navigation (PATON) Documentation</b>   |                           |   |
| 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: <ul style="list-style-type: none"> <li>a. ANSC-7030 Activity Report (Individual)</li> </ul>  | _____                     | _____                                   |
| <b>6.0</b>             | <b>Auxiliary ATON Verifier - Bridges</b>  |                           |   |
| 6.1                    | Describe bridge protective system   | _____                     | _____                                   |

## Auxiliary Aids to Navigation (ATON) Verifier

Name \_\_\_\_\_ EMPID \_\_\_\_\_

| <u>Task<br/>Number</u> | <u>AUX-AV<br/>Task</u>  | <u>Date<br/>Completed</u>   | <u>Verifying<br/>Officer's Initials</u>                                       |
|------------------------|---|---|---|
| 6.2                    | Describe bridge lighting /marking systems and requirements for:<br>a. Fixed bridges (118.65)<br>b. Swing bridges (118.70)<br>c. Single-opening bridges (118.75)<br>d. Bascule bridges (single and double-leaf) (118.80)<br>e. Vertical Lift bridges (118.85)<br>f. Retroreflective panels (118.100)<br>g. Daymarks and lateral lights (118.110)<br>h. Radar reflectors/racons/fog signals (118.120 and 118.130)<br>i. Bridge protective systems | _____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ | _____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ |
| 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<br/>Number</u> | <u>AUX-AV<br/>Task</u> | <u>Date<br/>Completed</u> | <u>Verifying<br/>Officer's Initials</u> |
|------------------------|------------------------|---------------------------|---|
|------------------------|------------------------|---------------------------|---|

### 7.0 Auxiliary ATON Verifier -Private Aids to Navigation (PATON) Certification and Currency Maintenance

- |     |   |       |       |
|-----|---|-------|-------|
| 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   | _____ | _____ |



[illegible]



EMPID \_\_\_\_\_

## NOTES

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U.S. Department of  
Homeland Security

United States  
Coast Guard



Command's Name

Street Address  
City, State Zip Code  
Staff Symbol:  
Phone:  
Email:

1601  
DATE

## MEMORANDUM

From: I. M. Frank, CAPT  
Unit's Name

Reply to  
Attn of:

To: M. O. Ore, USCG Auxiliary

Subj: DESIGNATION AS AUXILIARY AIDS TO NAVIGATION (ATON) VERIFIER

Ref: Auxiliary Aids to Navigation (ATON) Verifier Performance Qualification Standard  
Workbook

1. Congratulations! You have completed all requirements necessary to perform the duties of an Auxiliary Aids to Navigation (ATON) Verifier. You are authorized to carry out the responsibilities of an Auxiliary Aids to Navigation (ATON) Verifier within the scope of your qualifications. This is a significant milestone in your professional development and I commend your accomplishments.

2. This Letter of Designation should be retained as part of your personal Training Record and you will be assigned the Auxiliary Aids to Navigation (ATON) Verifier's Qualification Code "AV".