United States Coast Guard Auxiliary
U.S. Department of Homeland Security

First Northern Navigation Systems
We verify the AtoNs and PATONs, check the Bridges, and update the Charts of First Northern

Covering Aids to Navigation, Bridges, & Chart Updating Activity
Accuracy - Credibility – Professionalism - Service to the Coast Guard & NOAA-NOS

PATON Review Workshop – Sunday, April 25th at 0900 at the April Awards Conference.

The emphasis of the AV (Aid Verifier) program is on *prevention, accuracy, credibility, professionalism and service to the Coast Guard.* The purpose of this April workshop is to upgrade your skills as an existing Aid Verifier so that you understand the new guidelines for taking fixes, depths and digital photos, and you know how to use the new web-based PATON System. You can register and receive an access code for the PATON System at this session. In 2010, the Auxiliary is tasked by the Coast Guard and the Auxiliary Bridge to verify all the private aids and survey all of the bridges throughout First Northern during 2010.

The new guidelines are available on the Navigation Systems Web Site at **http://www.uscgaan.com.** **PATON verifications** now include the taking and reporting of fixes and depths, the pre-underway and on-scene evaluation of the electronic equipment being used, high quality on-scene observations, and professional verification report preparation. Fixes are taken with GPS sets using WAAS or DGPS, physical measurements, photographs, and the comparison of all observations to the Light List, the PATON's permit and to the applicable NOAA Nautical Chart are also included in the verification process.

We invite you to assist us this year and to attend this workshop to update your AV skills. All reports for PATON verifications and bridge surveys must be made on-line this year.

SOUTH PORTLAND PATON WORKSHOP – Saturday, April 10th at 0900 to 1700 at the South Portland CG Base.

The new Web-Based PATON System is being installed in Division 2 in 2010 and we are directed by the Coast Guard to make all AV verification reports on-line this year. 230 PATONs have been identified for verification in 2010 along with 55 bridges that must be surveyed. An estimated 25 4-hour patrols will be required to get this job done. In addition, as we experienced in every other CG ANT AOR, it is estimated that another 100 non-permitted PATONS will be discovered during this process. You will need to receive this training to learn about the new guidelines and the procedures for using the new PATON and Bridge System and to receive an access code to the PATON System. Notify Tom Raynor at Tom@Raynorshyn.com if you plan to attend this workshop. Enrollment is required by April 5th.

BRISTOL PATON WORKSHOP - Wednesday, May 5th from 1900 to 2230 at Kent Hospital in Warwick, RI

PAC (Patrol Area Coordinators) and PATON assignments will be made for the 2010 PATON Season. There are 378 PATONs and 13 bridges in the CG ANT

Bristol AOR. The AOR has been divided into five patrol areas. An estimated 21 patrols will be required to get this job done. If you want to be active in the PATON and Bridge programs this year, plan to attend this workshop. Contact Mike Quinn at MichaelSQuinn@gmail.com to reserve a seat and further details of this workshop.

The 2010 Coast Guard Light List: The new light list is now available from the Coast Guard Navigation Center web site and all other copies of the light list are now obsolete and should not be used. http://www.navcen.uscg.gov The 2010 Light List for the First Coast Guard District is available by just clicking on the map that will appear. The publication contains a list of lights, sound signals, buoys, daybeacons, and other aids to navigation. This publication is in PDF format.

The Light List is not corrected on line so it may make sense to save it to your hard-drive. Print only the pages that you need only when you need them while verifying PATONs on scene. Each aid to navigation should be checked against the latest copy of the Light List as a standard procedural part of a PATON's verification.

Active AVs-Aid Verifiers are encouraged to download and print out that section of the Light List that covers the PA-Patrol Area(s) where that plan to work on 2010. You are required to validate your observation of each PATON to the data shown in the Light List and report any discrepancies.

COAST GUARD DISTRICT 1 LOCAL NOTICE TO MARINERS: All Aid Verifiers, and all operational members should also be receiving a copy of the Local Notice to Mariners via email from U.S. Coast Guard Navigation Center. The LNM has important information about your AOR such and Chart Updates, Light List updates, Bridge work information and GPS information. Sign up to get your weekly copy by E-mail or by just going to: **http://www.navcen.uscg.**gov.

LORAN-C TERMINATED: The Coast Guard published a Federal Register notice on Jan. 7, 2010, regarding its intention to terminate transmission of the LORAN-C signal **Feb. 8, 2010**. In accordance with the DHS Appropriations Act, the U.S. Coast Guard terminated the transmission of all U.S. LORAN-C signals effective **2000Z 08 Feb 2010**. At that time, the U.S. LORAN-C signal was permanently discontinued. This termination does not affect U.S. participation in the Russian American or Canadian LORAN-C chains. U.S. participation in these chains will continue in accordance with international agreements. The Canadian Coast Guard has also issued a statement, which is shown on their website.

The Coast Guard strongly urges mariners that had used LORAN-C for navigation to shift to a GPS navigation system and become familiar with its operation as soon as possible. Mariners can't use LORAN-C for navigation as of Feb. 8, 2010.

LORAN-C has, as a result of technological advancements in the last 20 years, became an antiquated system no longer required by the armed forces, the transportation sector or the nation's security interests and was used only by a small percentage of the population. The Coast Guard understands that LORAN-C was still used by a small segment of the public and that those users must shift to GPS or other systems. Continued use of limited resources to operate LORAN-C was no longer prudent use of taxpayer funds and is not allowed under the 2010 DHS Appropriation Act.

The decision to cease transmission of the LORAN-C signal reflects the president's pledge to eliminate unnecessary federal programs.

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION UNITED STATES DEPARTMENT OF COMMERCE	**D1NR CHART UPDATING**

Any Auxiliary Member who would like to update or improve their charting skills can by going to our District NS Web Site at http://www.uscgaan.com. The aim on the Auxiliary Chart Updating program is directed toward raising your competence in the eyes of NOAA-NOS by focusing on *prevention*, *accuracy*, *credibility*, *professionalism* and *service to the NOAA-National Ocean Service*. Specific guidelines for taking fixes and depths are provided that require pre-underway validation of all electronic equipment that is used to perform measurements, and for reporting quality control evidence for each on-scene observation and instrument reading. Also required are explanations of the technique(s) used to acquire any reported data. Observers are directed to define each chart update task, list their on-scene observations, develop a conclusion from the collected evidence and make a final recommendation to NOAA-NOS. A fresh scientific approach is encouraged. Evidence can take the form of a fix taken with a GPS set using WAAS, depths corrected to the charted vertical datum, physical measurements, photographs, drawings, marked up chart and printouts from the Internet. Any official document that supports your contention is great support evidence. The Internet can also supply great supporting data. In effect, you are pleading the case for acceptance of your premise as a chart update to NOAA.

COAST PILOT 1 - 39ND EDITION 2009: Coast Pilot 1 covers the coast of Maine, New Hampshire and Massachusetts to the west side of Cape Cod. The Coast Pilot supplements the navigational information shown on the nautical charts. All Auxiliarists are urged to report errors, omissions, or differing conditions to those found in the Coast Pilot, or shown on the charts, in order that they may be fully investigated and corrections made. Auxiliarist should use the "*NS-CU05 Coast Pilot Text Correction Worksheet*" and attached it to a "*NS-CU03 Chart Updating form*." These forms are available on the Chart Updating Web Page at www.uscgaan.com. These reports are sent to the DSO-NS. You are required to validate your observation of each Bridge to the data shown in the Coast Pilot and report any discrepancies. This edition of the Coast Pilot can be downloaded from the internet to your computer at: **http://nauticalcharts.noaa.gov/nsd/cpdownload.htm**

New Auxiliary Private Aid to Navigation (PATON) Program Policy

Take a minute to become familiar with the details of this new policy.

I.   Introduction:

Private Aids to Navigation (PATONs) are authorized by the U.S. Coast Guard in accordance with Federal law, and are to be maintained by, and at the expense of the owners of the aid. The Auxiliary Navigation Systems Division is assigned the responsibility for:

1. Verifying all PATONs on a CG determined periodic basis,
2. Reporting non-permitted PATONs observed in public waters, and
3. Reporting any PATON discrepancies that are observed.

Verifications and reports of non-permitted PATONs are made by AVs (Aid Verifiers) currently certified and qualified Auxiliarists, and ensure that private aids are in compliance with the conditions published on the First District Web-based Private Aid to Navigation System.

II.   Authorized Activities:

The Auxiliary PATON program involves verifying PATONs, reporting non-permitted PATONs, reporting discrepancies that are observed on PATONs, and assisting CG Units and ANTs with PATON activity.

A "PATON Verification" is defined as an on-site review of a private aid to ensure that the authorized hardware is installed as approved in the Private Aid permit as listed in the Web-Based Private Aid to Navigation System, in the Light List and on the NOAA chart of the area, and whether the PATON is watching properly.

The goal of the Navigation Systems Division is to encourage and train active participation by Auxiliarists in the PATON Program.

The Auxiliary's PATON Program can contribute significantly to the Coast Guard Aid to Navigation Program by the following authorized activities:

1. **"Verifying" Private Aids to Navigation at the direction of the Coast Guard.**

   a. Currently certified and qualified AV-Aid Verifiers and their OPFACs are authorized assignment to duty to support and augment the Coast Guard Auxiliary Private Aid to Navigation (PATON) Verification Program.
   b. Participation in the PATON Verification Program is limited to those Auxiliarists who are currently certified and qualified as an AV-Aid Verifier.
   c. Observing a PATON normally includes location (fix), depth of water, color, numbering and lettering, lighting, characteristic of light on the aid, sound signals and overall condition of the aid. Comparisons of data shown in the Light List, the PATON's database record and on the current nautical chart(s) to the on-scene observation of the PATON are also included, while being aware that many private aids may not be listed in the Light List, nor be charted.
   d. This PATON Program activity may be performed by foot, by car or on an Auxiliary OPFAC that is currently inspected & accepted and under valid patrol orders.
   e. PATON "verifications," including reports showing discrepancies and PATONs found watching properly, are reported to the Coast Guard using the *Web-Based Private Aid to Navigation System*.

f. Aids Verifiers must also report all PATON activity to AUXDATA on a 7030 Activity Report Mission – Individual form, as a Mission 31.

2. **Acting as the eyes of the Coast Guard ANTs or Units by observing PATONs as they transit their AOR. Observations of private aids also include:**

   a. Every Auxiliarist should observe every PATON that they pass when underway and report all observed discrepancies to the Coast Guard. Participation in this activity is open to every Basic-Qualified (BQ'ed) Auxiliarist.

   b. PATON discrepancies can be observed while on a regular Auxiliary patrol, or can be "Casual Observations" of discrepancies discovered while on a private, recreational, or commercial trip, on foot or on a vessel.

   c. These discrepancies should be reported to the Coast Guard on a *D1 Private Aid to Navigation Report* form available on the District NS web site, or, if AV qualified, through the Web-Based *PATON Database System*.

   d. AuxData credit for this discrepancy report activity should be taken on a *7030 Activity Report - Mission – Individual* form as a Mission Code 31. AuxData credits for private aids casually observed as "watching properly" are not allowed.

3. **Identifying non-permitted private aids and reporting their location, characteristics, and names of the aid owners to the Coast Guard.**

   a. Only AV qualified members may perform this activity.

   b. Non-permitted Aid reports are submitted to the Coast Guard on a D1 Private Aid to Navigation Report or equivalent through the Auxiliary CG ANT Liaison in your AOR.

   c. AVs must also report this activity to AUXDATA as a discrepancy on a *7030 Activity Report Mission – Individual* form, as a Mission 31.

4. **Assisting and augmenting PATON administration ashore functions of any Coast Guard unit or DPW under the direction of the C.G. unit.**

   a. The various tasks associated with the PATON Program include:

      ● Reviewing submitted AV Verification Reports on behalf of the CG ANT or Unit.

      ● Maintaining PATON records and files at the CG ANT or DPW.

      ● Contacting PATON owners at the direction of the CG ANT or Unit regarding compliance resulting from AV-Aid Verifier Discrepancy Reports.

      ● Scheduling follow-up verifications by AV qualified Auxiliarists for PATONs that are reported as corrected by PATON owners.

      ● Coordinating PATON permit updates and inquiries with the DPW at the direction of the Coast Guard.

      ● Members must be assigned to duty by the CG unit or Auxiliary Staff Officer in order to perform these ashore functions.

   b. Auxiliarists report their time for this activity on a *7030 Activity Report Mission – Individual* form, as a Mission 41 referencing the CG Unit for whom the work was performed.

III. AV – Aids Verifier Qualification

Members pursuing AV qualification should be currently or formerly boat crew or coxswain qualified. If not, they must complete the following sections of the Boat Crew Qualification Guide: BCM-02-08 through 02-14 tasks addressing survival equipment, and BCM 06-01 through 06-08 tasks or equivalent training. This ensures that AV candidates have on-the-water knowledge in safety and of Aids to Navigation systems.

AV qualification is obtained by:

1. Attending a district sponsored Aids Verifier training program. Prior to attending the class, the candidate must download and read the pre-class readings that will be located on the district NS web site, and pass an open book exam to ensure the readings were completed.

2. Passing an open book exam with a grade of 90% or better at the completion of the class.

3. Performing the supervised verification and reporting of three PATONs and the reporting of this PATON activity to both the Coast Guard and to AUXdata. These verifications must be done under the supervision of an AVQ – Aid Verifier Qualifier.

   - AVQs are experienced, currently certified and qualified AVs who have been designated by the DSO-NS to perform AV training.

4. On successful completion of the 3 supervised inspections, the AVQ will notify the DSO-NS. The DSO-NS will check that the candidate meets all of the above criteria, and the DSO will then notify DIRAUX that the member has completed all requirements and requests certification as an Aids Verifier.

IV. Restrictions:

1. Auxiliarists may not climb or board any Private Aid to Navigation.

2. Auxiliarists are not allowed to pull a private aid to short stay in order to determine its exact position. Therefore, a private aid will always be reported by the Auxiliary as located anywhere within its watch circle. Auxiliarists are trained to take fix and depth reading for floating aids upwind or up-current from the aid in order to minimize the watch circle error.

3. Auxiliarists may not enter private property without following the district procedures for gaining access to the property where the private aid exists.

4. Auxiliarists may not repair, correct or reset any Private aid to navigation.

V. Currency Maintenance

1. In order to maintain their AV qualification, each AV qualified member must be active in the program, and is required to have filed at least two ATON, PATON or Bridge reports annually. These reports must have been properly reported to the Coast Guard, as well as into AuxData. Reports that are acceptable for currency maintenance are:

   - An ATON (Federal Aid) discrepancy report.
   - A PATON (Private Aid) discrepancy or verification report, or
   - A Bridge discrepancy or annual survey report.

2. Failure to maintain annual currency will result in going into REYR status.

3. Failure to perform the currency procedures for five (5) consecutive years will result in loss of qualification. The member will then be required to meet the initial qualification criteria in order to regain qualification.

Copies of this policy can be obtained from the Navigation Systems Web Site at www.uscgaan.com.

> **"Every Auxiliary OPFAC while underway
> should be checking all
> Aids to Navigations and Bridges for any type of
> Discrepancy
> and also should be checking the
> Charts & Shoreline for Charting Errors
> as well as providing update reports on
> Small Crafts Facilities in their AOR"**

The Navigation Systems Organization for the 2010 PATON Season.

With the formidable task of verifying the Private Aids and surveying the bridges of First Northern this season, it was necessary to reorganize and move to the ICS – Incident Command System to plan, track and achieve the goals set by the Coast Guard and the Auxiliary Bridge.

The overall Auxiliary PATON Program command falls to the **DSO-NS Frank Larkin** utilizing the five ADSO-NS as follows:

> ANT Southwest Harbor – **Nancy Plunket**, **ADSO-NS**
> ANT South Portland – **Tom Raynor**, **ADSO-NS**
> ANT Boston – **Jeff James**, **ADSO-NS**
> ANT Woods Hole – **Harry Cutts**, **ADSO-NS**
> ANT Bristol – **Bob Pardi**, **ADSO-NS**.

Each CG ANT AOR is broken down into natural Patrol Areas. Each Patrol Area has been or will be assigned a *PAC – Patrol Area Coordinator*. Each PAC will be issued a list of the PATONs and Bridges that are scheduled for verification and survey this season in that area. The PAC is responsible for organizing the AVs and OPFACs within the assigned patrol area and to coordinate the patrols in their patrol area. The use of "*AV PATON teams*" is highly recommended because it is more efficient and generates more complete and accurate reports. This concept and team assignments are contained in the *NS-AN02 AUXILIARY SHORT RANGE AIDS TO NAVIGATION TRAINING GUIDE* available in the Navigation Systems Web Site at www.uscgaan.com. AVs and members with OPFACS are encouraged to contact their ADSO-NS or local PAC and sign up for the 2010 PATON and Bridge program activity. We need your assistance to get this job done for the Coast Guard. Each Patrol Area is identified below to give you an idea of the scope of the work scheduled in each area and of the location where it will be performed. Note that some PACs have not yet been assigned.

We are looking for experienced AVs to fill the PAC slots that are highlighted in yellow.

FIRST NORTHERN – 2,497 PATONs – 206 BRIDGES – 166 PATROLS
ANT SOUTHWEST HARBOR – 264 PATONs - 13 Bridges – 25 Patrols.
ADSO-NS **Nancy Plunket**

> **PNR-01** Penobscott River Area – PAC **Bob Lysaght –** 5 PATONS and 1 Bridge.
> **EPB-02** Northern and Eastern Penobscott Bay – PAC **Frank Wiswall –** 7 PATONS and 2 Bridges.
> **RCK-03** Rockland Area – PAC **Scott Allen** – 27 PATONs and 4 Bridges.
> **BHB-04** Blue Hill Bay – PAC **Al Eggleston** – 54 PATONs and 3 Bridges.
> **SWH-05** Southwest Harbor – PAC **Nancy Plunket –** 28 PATONs and 2 Bridges.
> **MAC-06** Machias Bay – PAC **Nancy Plunket** – 18 PATONs and 2 Bridges,
> **NTH-07** Eastport and Lubec Area – PAC **Nancy Plunkett –** 125 PATONs and 10 Bridges.

ANT SOUTH PORTLAND – 230 PATONs – 55 Bridges – 25 Patrols.
ADSO-NS **Tom Raynor**

> **BTB-01** Boothbay Area – PAC _____. 54 PATONS and 5 Bridges.
> **CSB-01** Casco Bay – PAC _____. 65 PATONs and 22 Bridges.
> **PRT-01** Portsmouth Area – PAC _____. 82 PATONS and 26 Bridges.
> **SAC-01** Saco Bay Area – PAC _____. 9 PATONS and 1 Bridge.
> **HPT-01** Hampton Harbor Area – PAC _____. 20 PATONs and 1 Bridge.

Note: We will be looking for PAC volunteers at the PATON Workshop at ANT Portland on April 10th.

ANT BOSTON – 412 PATONs – 91 Bridges – 35 Patrols.
ADSO-NS **Jeff James**

> **NBT-01** Merrimac River – PAC **Dick Muir -** 21 PATONS and 13 Bridges.
> **NBT-02** Essex River – PAC _____ **-** 18 PATONs.
> **NBT-03** Parker River – PAC _____- 15 PATONs and 1 Bridge.
> **UNS-01** Danvers River – PAC **Bruce Clarkson -** 25 PATONs and 4 Bridges,
> **UNS-02** Salem Sound Area – PAC **Jeff James** – 53 PATONs and 2 Bridges,
> **LNS-01** Annisquam River / Ipswich – PAC **John Courtney** – 17 PATONs and 3 Bridges.
> **LNS-02** Gloucester / Rockport Area – PAC **John Courtney –** 6 PATONs.
> **LNS-03** Off Shore PATONs – PAC **-** _____ **-** 17 PATONs.
> **LNS-04** Lynn / Swampscott – PAC **– John Cusack** – 4 Bridges.
> **BOS-01** Boston Inner Harbor – PAC **John Mansour –** 29 PATONs and 37 Bridges.

BOS-02 Hingham and Quincy Bays – PAC **Frank Larkin –** 17 PATONs.
BOS-03 Dorchester Area – PAC **Howard Rothstein –** 15 PATONs and 4 Bridges.
BOS-04 Braintree / Weymouth Area – PAC **Pete Somers –** 13 PATONS and 4 Bridges.
BOS-05 Off Shore PATONS – PAC **Pete Somers** – 7 PATONS.
LSS-01 Duxbury Bay – PAC **Eunice Bloomquist –** 32 PATONS and 1 Bridge.
LSS-02 Kingston Harbor – PAC **Eunice Bloomquist –** 14 PATONS.
LSS-03 Plymouth Harbor – PAC **Eunice Bloomquist –** 6 PATONs.
USS-01 New Inlet – PAC **Tony Silvestri –** 35 PATONS and 3 Bridges,
USS-02 Green Harbor – PAC **Dick Eckhouse –** 4 PATONS.
USS-03 Situate Area – PAC **Dick Eckhouse –** 4 PATONS.
CNR-01 Oxbow Area – Connecticut River – PAC **Bill Nevill –** 19 PATONs and 2 Bridges.
CNR-02 Upper Area – Connecticut River – PAC **Bill Nevill –** 30 PATONs and 13 Bridges,
CG-01 Coast Guard Assigned PATONs – PAC **Jeff James –** 5 PATONs.

ANT WOODS HOLE **– 1,283 PATONs - 34 bridges – 60 Patrols.**
ADSO-NS **Harry Cutts**
CNL-01 Barnstable Harbor / Sandwich – PAC _____. (Division 11) – 20 PATONS and 1 bridge,
CNL-02 Buzzards Bay to Wareham – PAC _____ _ . (Division 6) – 82 PATONS and 5 bridges.
CNL-03 Wings Neck to Old Silver Beach – PAC **Ernie LeBlanc -** 55 PATONS and 2 bridges.
CNL-04 Sippican Harbor to Mattapoisett – PAC _____. (Division 6) – 60 PATONs.
CNL-05 New Bedford to Westport – PAC _____. (Division 6) – 56 PATONs and 5 Bridges,
CNL-06 Cuttyhunk – PAC **Frank Mackinnon.** (Division 6) – 9 PATONs.
NAN-01 Nantucket – PAC _____. (Division 11) – 72 PATONS.
LCE-01 Harwich and Monomoy – PAC **Bud Walls.** (Division 11) – 137 PATONS.
LCE-02 Chatham and Orleans – PAC **Bud Walls.** (Division 11) – 99 PATONS and 1 Bridge.
LCE-03 Eastham – PAC _____. (Division 11) – 23 PATONS.
LCW-01 Provincetown – PAC _____. (Division 11) – 27 PATONS.
LCW-02 Wellfleet – PAC _____. (Division 11) – 31 PATONS.
LCW-03 Sesuit Harbor – PAC _____. (Division 11) – 18 PATONS.
MID-01 Bass River, Dennisport / Yarmouth – PAC **Clint Cave. –** 145 PATONS and 5 Bridges.
MID-02 Hyannis / Centerville PAC _____ . 80 PATONS and 2 Bridges.
MID-03 Cotuit Area – PAC _____ . 93 PATONs and 2 Bridges.
UCE-01 Upper Cape East – PAC _____. 187 PATONs and 7 Bridges.
UCW-01 Upper Cape West – PAC _____. 19 PATONs and 2 Bridges.
MV-01 Marthas Vineyard – PAC _____. 68 PATONS and 2 Bridges.

ANT BRISTOL **– 308 PATONs - 13 bridges – 21 Patrols.**
ADSO-NS **Bob Pardi**
BRS-01 Point Judith / Block Island – PAC _____. 47 PATONs.
BRS-02 ANT Bristol West – PAC **Mike Quinn**. 46 PATONs
BRS-03 ANT Bristol East – PAC _____. 34 PATONs.
BRS-04 ANT Bristol Central – PAC _____ . 135 PATONs.
BRS-05 ANT Bristol Westport River – PAC **Frank MacKinnon** – 46 PATONs (Division 6)
BRS-06 ANT Bristol CG – PAC **Chris Lawrence** – 11 PATONs.

As you can readily see, we are dealing with a major District-wide logistics opportunity for the Auxiliary. There are no restrictions within the District where you can assist. Contact the PAC or ADSO in the area where you can assist and volunteer your support. We need the assistance of every AV to get this job done. Contact your ADSO and form or join an AV Team. There is no reason that the Auxiliary can't run the PATON and Bridge programs for the Coast Guard. We are doing just that in many AORs right now and you can play a role in making this program a great success. Help us fill in the blanks.

We also need your assistance at the CG ANT level to handle the details and follow up that will be required when the verification reports start coming in. You will receive training to do this job. The various tasks are listed in the new PATON Policy shown above.

Taking more accurate fixes for floating aids.

In addition to following the new guidelines for taking and reporting fixes to a Federal Agency, there is a best practice that will improve the accuracy of your fix. With the use of a GPS equipped with WAAS –Wide Angle Augmentation System that is now providing EPS-Estimated Position Errors under three meters, it would seem like over kill to try to improve any electronic-generated location. However, one of our Navigation System's goals is to be as accurate as possible.

Background: Every floating aid is anchored to the seabed with a harness—usually a chain. Depending on the average height of tide of tide in the area, the buoy will float around on this tether as it is affected by the current and the wind. The depth of the water causes the aid to move on different size arcs around its seabed anchor. This is called the aid's "*Watch Circle*." A large range or tide in an area cause large watch circles for aids in shallow water where most of our PATONs reside.

Restrictions: As Auxiliarists, we are not allowed to climb aboard, touch, or pull an aid up to short stay in order to determine the exact position of an aid's anchor. This is the Coast Guard policy for the Auxiliary.

Solution: Rather than take a fix alongside the aid as we normally would do, take the fix up-wind or up-current from the aid. This puts you on the anchor or mooring side of the aid. The result is that you will be closer to the permitted location for the aid. While we don't get a perfect fix that is right over the anchor, we do get a better position that if we took the fix alongside the aid. Mention in the comments of your report that you used this technique and always report your EPE.

The Coast Guard understands that our Auxiliary fixes are not as accurate as the positions that they take. However, when you follow the new guidelines for taking and report a fix, and you add this technique, you will be surprised as close you can get to the permitted location on most aids. And, when you note a large discrepancy from your observed fix to the PATON's permitted fix, you will feel more confident about reporting discrepancies and it will show in your reports. Not only is your accuracy improved, but your credibility also receives a large boost.

When you do find a large location discrepancy, we recommend that you use the [NS-CU07-VERTICAL AND HORIZONTAL ERROR CALCULATOR (08-09)](#) to actually calculate the exact distance off and the direction off in True degrees. You will find this calculator in the Chart Updating Web Page on the Navigation Systems Web Site at www.uscgaan.com. This data will really increase your credibility as a professional AV.

> "It's always a lot easier to respond to a boating accident that has already been prevented."