







Covering Aids to Navigation, Bridges, & Chart Updating Activity

Accuracy - Credibility - Professionalism - Service to the Coast Guard & NOAA-NOS

MAY NAVIGATION SYSTEMS NEWSLETTER CONTENTS

- 1. Understanding DOP Quality/Accuracy Values Provided by your GPS Page 1.
- 2. How to Participate in the 2010 PATON and Bridge Program Page 2.
- **3.** Snippets from the latest LNM for your review. Page 4.
- 4. Copy of "First Northern District Staff Navigation Systems Report for May 2010" Page 6
- **5.** Copy of "Navigation Systems Strategic Plan for 2010." Page 6.

Understanding DOP (Dilution of Precision) Quality/Accuracy Values Provided by your GPS.

This question keeps coming up at NS-Navigation Systems workshops. The concept of DOP-dilution of precision originated with users of the Loran-C navigation system. More recently, the term has come into much wider usage with the development and adaptation of GPS.

The signal from each GPS satellite has level of precision; depending on the relative geometry of the satellites, these precisions can be combined to give amplified or greatly compressed precision. When the satellites that are viewable by your GPS are close together in the sky, the geometry is said to be weak and the DOP value is high; when they are far apart (showing a wider angle), the geometry is strong and the DOP value is low.

Therefore, a low DOP value represents a better GPS positional precision due to the wider angular separation between the satellites used to calculate a GPS unit's position. Other factors that can increase the effective DOP are obstructions such as nearby mountains or buildings. DOP can be expressed as a number of separate measurements. HDOP, VDOP, PDOP, and TDOP are respectively horizontal, vertical, positional (3D), and temporal dilution of precision. They follow mathematically from the positions of the usable satellites. GPS receivers allow the display of these positions as well as the DOP values..

Meaning of DOP Values

DOP Value	Rating	Description		
1	Ideal	This is the <u>highest possible confidence level</u> to be used for applications demanding the highest possible precision at all times.		
1-2	Excellent	At this confidence level, <u>positional measurements are considered accurate enough</u> to meet all but the most sensitive applications.		
2-5	Good	Represents a level that <u>marks the minimum appropriate for making business</u> <u>decisions</u> . Positional measurements could be used to make reliable in-route navigation suggestions to the user.		
5-10	Moderate	Positional measurements could be used for calculations, but the fix quality could still be improved. A more open view of the sky is recommended.		
10-20	Fair	Represents a low confidence level. Positional measurements should be discarded or used only to indicate a very rough estimate of the current location.		
>20	Poor	At this level, measurements are inaccurate by as much as 300 meters with a 6 meter accurate device (50 DOP \times 6 meters) and should be discarded.		

Participating in the 2010 PATON and Bridge Program. As an AV, you could volunteer to be a *PAC-Patrol Area Coordinator*. Unfortunately, most of these slots have

As an AV, you could volunteer to be a *PAC-Patrol Area Coordinator*. Unfortunately, most of these slots have already been filled. As a qualified AV, you can volunteer to assist a PAC within a patrol area. Here is the latest list of the assigned PACs for First Northern:

ANT BOSTON AOR – Newbur	ryport to Plymo	outh MA – ADSO	-NS Jeff .	lames
Newburyport – Division 3	PAC	Phone	PATONS/	
NPT-01 Merrimack River	Dick Muir	601-898-2262	21	5
NPT-02 Essex River	Bud Kuran	978-388-4830	18	0
NPT-03 Parker River	Bud Kuran	978-388-4830	15	1
Upper North Shore – Division 4				
UNS-01 Danvers River	Bruce Clarkson	978-922-1011	25	4
UNS-02 Salem Sound	Jeff James	978-486-4346	53	2
UNS-03 Lynn Area	Bob Cusack	781-581-1159	0	4
Lower North Shore – Division 4				
LNS-01 Gloucester/Annisquam	Jeff James	978-486-4346	23	3
LNS-02 Off Shore PATONs	Bruce Clarkson	978-922-1011	9	0
Boston Harbor – Division 5 and 12				
BOS-01 Boston Inner Harbor	John Mansour	617-964-6074	43	33
BOS-02 Hingham/Quincy Bay	Frank Larkin	978-263-3023	17	0
BOS-03 Dorchester Bay	Frank Larkin	978-263-3023	23	6
BOS-04 Braintree / Weymouth	Pete Somers	781-843-7018	13	3
BOS-05 Off Shore PATONs	Pete Somers	781-843-7018	7	0
Lower South Shore – Division 6 and 12.				
LSS-01 Kingston, Dux., Plym.	Eunice Bloomqu	ist 781-582-1312	65	0
Upper South Shore – Division 12				
USS-01 New Inlet Area	Tony Silvestri	781-326-0565	34	4
USS-02 Scituate / Brant Rock	Dick Eckhouse	617-894-0907 Cell	10	0
Connecticut River Area				
CNR-01 Oxbow Area	Charlie Lydon	413-323-4870		
	Bill Nevill	413-536-4762	19	0
CNR-02 Upper Area	Charlie Lydon	413-323-4870		
	Bill Nevill	413-536-4762	30	11
Coast Guard Buoys				
CG-01 Class I PATONS	CG ANT BOST	ON	6	0
ANT WOODS HOLE – Province	etown to Westp	ort MA, including	Martha's	Vineyard and
Nantucket – Harry Cutts, ADSO-NS				
Concl. Away Decreased Decrete Cottonium	Jaland Division	C d 11		
Canal Area – Buzzards Bay to Cuttyhunk		508-295-7018	92	7
CNL-02 – Buz. Bay to Warhm	Ralph Dlouhy Ernie LeBlanc		82	7 2
CNL-03 – Wings Neck to W. Fal CNL-04 - Sippican to Mattpstte	Bob Millet	508-564-6852 508-998-1329	67 59	0
CNL-04 - Sipplean to Mattpstte CNL-05 - New Bed. to W. Island		508-998-1329	59 59	6
CNL-06 - Cuttyhunk Island	Frank Mackinno		9	0
Upper Cape East – Cotuit to Woods H		11 300-923-1104	,	U
UCE-01 Upper Cape East	Tony Piemonte	77-413-9540		
OCL-OI Opper Cape East	Dick Farrar	508-548-9262	228	6
Martha's Vineyard Island – Division 1		300-3 4 0-7202	220	U
MV-01 Martha's Vineyard Area		774-413-9540		
WW-01 Martia s Villeyard Area	Dick Farrar	508-548-9262	68	0
CG ANT Woods Hole – Coast Guard	DICKTAIIAI	300-3 1 0-7202	00	U
CG-02 Off Shore Aids	CC ANT WH		2	0
	CG ANT WH		2	0
MID 01 Page P. / Varmouth		500 200 4246	1.46	5
MID-01 Bass R. / Yarmouth	Clint Cave	508-398-4246	146 174	5
MID-02 Hyannis to Cotuit	Bob Nolan	508-420-1008	174	3
Lower Cape East – Division 11				
LCE-01 Harwich / Monomoy	Bud Walls	508-247-9711	137	0

LCE-02 Chatham / Orleans	Bud Walls	508-247-9711	99	1
LCE-03 Eastham Area	Bill Gardiner	508-255-2326	23	0
Nantucket Area – Division 11	PAC	PHONE	PATONS/B	RIDGES
NAN-01 Nantucket Island	Harry Tipper	508-228-1424	71	0
Lower Cape West – Division 11				
LCW-01 P'town / Wellfleet	Bill Gardiner	508-255-2326	59	0
LCW-02 Sesuit / Barnstable	Seth Crowell	508-385-3268	35	0
ANT SOUTH PORTLAND – Hamp	ton Beach to Boot	hbay Harbor — Tom	Raynor Al	DSO-NS
SPT-01 Boothbay Area	Jerry Homer	207-633-5203	54	9
SPT-02 Casco Area	Judy Davidson		66	16
SPT-03 Portsmouth Area	Bob Theve		102	20
SPT-04 Saco Area	Don Logan		9	2
ANT SOUTHWEST HARBOR -	Nancy Plunke	ett. ADSO-NS (Nu	umbers are still	estimates in this
AOR. Previously identified Non-Permitted Aids ar				
SWH-01 Penobscott Bay Area	Bob Lysaght	207-951-2216	6	5
SWH-02 N. and E. Penob Bay	Frank Wiswall	207-326-4243	28	1
SWH-03 Rockland Area	Scott Allen		78	0
SWH-04 Blue Hill Bay Area	Al Eggleston	207-667-8518	59	0
SWH-05 Southwest Harbor	Al Eggleston	207-667-8518	31	0
SWH-06 Machias Bay Area	Nancy Plunkett		18	1
SWH-07 Eastport and Lubec	Nancy Plunkett	207-230-1279	134	1
ANT BRISTOL – Block Island to	Westport River	– Mike Quinn Ch	nief PAC	
BRS-01 Point Judith / Block Is.	Nick Butziger	401-739-6028	48	0
BRS-02 ANT Bristol West	Frank Cotter	401-828-6340	57	1
BRS-03 ANT Bristol East	Mike Quinn	401-737-5078	67	6
BRS-04 ANT Bristol Central	Sterling McClay	508-476-3118	166	8
BRS-05 ANT Bristol South	Frank MacKinno	on 508-923-1184	48	2

We offer our thanks to all of the AVs who have stepped up to volunteer as *PAC-Patrol Area Coordinators*. Please give them you support and assistance. They need qualified AVs, OPFACs and coxwains and crew to get this job done. There are approximately *2,700* PATONs to be verified and *189* Bridges to survey in First Northern.

Some PATON and Bridge activity has started to come in. In ANT Boston, 12 ATONs, 8 PATONs, 8 Bridges and 2 Non-Permitted Aids have been reported. In ANT Bristol, 10 PATONs and 1 Bridge have been reported with 2 new AVs becoming qualified.

The PACs have received the form for their MAY Monthly Report and we are looking forward to review their verification and survey plans for the coming month. We are hopeful that any problems that may prevent an PAC from meeting their commitment will become evident so we can develop contingency plans to insure that the Auxiliary gets this job opportunity completed this season and on time. Here is the program status to date:

CG ANT AOR	PATONS	Actual	BRIDGES	Actual	Non-Permitted Aids Identified
BOSTON	431	13	88	15	2
WOODS HOLE	1283	0	30	0	0
SOUTH PORTLAND	231	0	47	0	0
SOUTHWEST HARBOR	264	0	9	0	141
BRISTOL	400	16	15	1	0
TOTAL	2609	29	189	16	143

"When you don't formulate a plan, generally nothing happens." This is not only a truism, it is a measure of reality. Don't ever underestimate the benefits from having a detailed plan. Success never just happens. There are just too many details involved in this program to allow it to happen in a random manner. Here are just a few planning items to consider:

How many PATONS and Bridges have to be verified in the Patrol Area?	The ICS Assignment List that you received shows the PATONs and Bridges in detail.		
How should the fixes and depths be taken and recorded.	The ICS204a-CG document that each PAC received has instructions for taking and reporting fixes, depths, photos etc. Each PAC received a hard copy of each of these guides.		

Do I have to take photos of every PATON and Bridge?	Follow the guides for taking photos that each PAC received.
How do I get resources such as OPFACs and AVs.	Contact your FSO-OP or SO-OP. <i>Response</i> has committed to provide resources for this program. Contact your SO-NS or FC for a list of qualified AVs in the area.
How do I get a list of AVs?	Log on to the Navigation Systems Web Site at www.uscgaan.com . There are quick links to this information on this site.
What is the best way to conduct a PATON patrol.	You can provide or schedule AVs on <i>regular multi-mission patrols</i> . You can schedule <i>specific PATON patrols</i> . The <i>team approach</i> is highly recommended. See pages 30 through 35 in the NS-AN02 Auxiliary Short Range Aid to Navigation Guide found at www.uscgaan.com for more detailed information.
How is the information reported to the Coast Guard?	Every <i>PATON verification</i> must be reported on-line on the PATON System. You must be AV Qualified and have an access code assigned in order to perform this activity. Every <i>Bridge survey</i> must be reported on line on the Bridge Database System. A current E-directory logon code is required to access this database. *Non-Permitted PATONs* are reported on a NS-PN04 Private Aid to Navigation Report.
A complete sweep of your assigned Patrol Area is required for Non-Permitted Aids to Navigation.	If the aid is not listed in the Web-Based PATON System, treat it as a Non-Permitted Aid to Navigation. Check every nook and cranny of your Patrol Area for anything that could be construed by a mariner to be an aid to navigation and report it.

If you have any questions, talk to your Patrol Area Coordinator and/or your NS Staff Officers.

It is time to get underway and start verifying the PATONs, surveying the Bridges and searching and documenting all the Non-Permitted aids to navigation in First Northern. As you were trained, be accurate, credible, timely and professional in everything that you do. We are ready to support you. Let us know immediately when you run into problems. Thanks again for your impressive commitment to this important Auxiliary program.

Snippets from the latest LNM-Local Notice to Mariners.

ME - BATH IRON WORKS - Dredging is being done at the Dry-Dock Sinking Basin Pier 3 and Dry-Dock Landing Grid #1. This notice will be updated as more information Is received.

ME - KENNEBEC RIVER, VICINITY OF DOUBLING POINT (REVISED) - The Corps of Engineers recently survey the channel in the Kennebec River in the vicinity of Doubling Point. A sand wave with minimum sounding of 22.1' MLLW in the vicinity of Kennebec River Buoy 31(LLNR 6160) has been identified. The coordinates of the worst shoal is as follows: 43-53' 15.5"N, 069-48' 39.0"W. Mariners are advised to use caution in transiting this area and not to rely on charted depths. A copy of the survey when plotted will be posted the Corps web page at http://www.nae.usace.army.mil/navigation/navigation/2.asp?mystate=me

ME - Portsmouth Harbor - Bridge rails are being replaced on the *Pierce Island Bridge* through 15 May 2010. The hours of operation are 7:00 AM - 5:00 PM.

ME - Seal Island - Mariners are advised to use extreme caution while operating in and around Seal Island. Seal Island, located to the east of Matinicus Island off of the coast of Maine, was used as an aerial bombing and target range by the United States Government. Recent exploration of the island and the surrounding waters led to the discovery of various munitions and explosives of concern (MECs) that present safety hazards to those who may come in contact with them. Some of these MECs are located on Seal Island as well as in the waters immediately surrounding it. A danger zone currently exists around the island; however, it was only enforced during times of active aerial bombing exercises which no longer occur. The regulation for the danger zone can be found in 33 CFR 334.10. Mariners are advised to use extreme caution while operating in and around Seal Island.

ME - South Portland – Royal River - The following seasonal aids in Royal River have not been established by April 01 as advertised in Light List: Royal River Channel Buoy 12 (LLNR: 7445), Royal River Channel Buoy 13 (LLNR: 7450), Royal River Channel Buoy 14 (LLNR: 7455), Royal River Channel Buoy 15 (LLNR: 7460), Royal River Channel Buoy 16 (LLNR: 7465), Royal River Channel Buoy 17 (LLNR: 7470), Royal River Channel Buoy 18 (LLNR: 7475).

MA - Barnstable - Cape Cod - All mariners are advised that the south and east sections of the bulkhead at the town marina in Barnstable Harbor is closed for all uses, and are advised to stay clear. The town-owned marina is at the southern end of Marispan Creek, inside of Blish Point, Barnstable.

The nominal range of Sandy Hook Light (LLNR 13117) has been upgraded to 10.2 nautical miles. Sandy Hook Light is watching properly.

MA - BEVERLY HARBOR-BASS RIVER - Severe shoaling has been reported on the Bass River from the Hall-Whitaker Bridge up to the Bass Haven Yacht Club. Mariners are advised to use extreme caution while transiting the area.

MA -BOSTON HARBOR - RDA Construction will be conducting pile driving and concrete casting operations in Boston Harbor at the Northern Avenue seawall between the Fish Pier and Pier 7 in (pa) 42-20.933n / 071-02.292w. Until further notice mariners are requested to

proceed at a slow bell when transiting the area as excessive wake has the potential to cause serious injury to workers as well as damage to equipment and property.

- **MA Cape Code Canal** Due to a recurring sand shoal area in the vicinity of station 155 south, west of the Sagamore Bridge in the Cape Cod Canal, this advisory is being disseminated to all interests. A 28.0' shoal has been detected approximately 200' into the improved channel extending from the south limit in the area of Station 155. Due to the greater range of tide in this area, vessels with a draft of up to 32' can be accommodated with careful planning and appropriate notice of transit. All vessels transiting with a draft greater than 24' should contact and consult well in advance with the Marine Traffic Controller on duty
- MA CHATHAM The Coast Guard has received a report of extreme shoaling Chatham Harbor.
- MA ESSEX RIVER-HAZARD TO NAVIGATION (REVISED) The Coast Guard has received reports of shoaling in the Essex River extending into the channel in vicinity of Essex Danger Daybeacon (LLNR 9495). All mariners are urged to use caution while transiting the area.
- **MA GLOUCESTER HARBOR -** The Coast Guard has received a report of a submerged vessel in position 42-34.90N latitude 070-40.10W longitude. Located in vicinity of the center of the Dogbar Breakwater on the harbor side. Mariners are advised to use caution while transiting the area.
- **MA Green Harbor** Dredging will be done in Green Harbor from 9 November 2009 31 January 2010. The hours of operation will be 7 days a week, 24 hours a day. On scene will be the dredge WOOD I, tug EDNA & EDDIE R and scow EDDIE CARROLL that will be monitoring VHF-FM channels 16, 13 & 67. Mariners are requested to transit at their slowest safe speed to minimize wake and proceed with caution after passing arrangements have been made.
- **MA MARSHFIELD-SCITUATE-NEW INLET -** Shoaling has been reported from the North River Junction Buoy towards South River Buoy 2 (LLNR 12360). This area is reported as approximately 3.5 feet during low tide. Mariners are advised to use caution while transiting the area, especially during extreme ebb tides.
- **MA MYSTIC RIVER -** Mariners are advised to use caution when transiting the area in vicinity of auto port terminal due to a sunken vessel. Boom is deployed in the area surrounding the sunken vessel and mariners are advised to proceed at a slow speed and with caution.
- **MA Merrimac River** On April 30, 2010 four moorings will be deployed for approximately four weeks. Each mooring will consist of a bottom tripod with an Acoustic Doppler Current Profiler. The tripod will be connected with a steel cable to an anchor and chain, from which a line will lead to the surface with a high flyer and a small float. A few small temperature and conductivity sensors will be attached to the line leading to the surface. The locations listed below are approximate.
- 0510A
- o Latitude 42°50'30.47"N
- o Longitude 70°48'15.39"W
- o Depth 10 m (MLLW)
- 0510B
- o Latitude 42°48'11.30"N
- o Longitude 70°44'23.02"W
- o Depth 30 m (MLLW)
- 0510C
- o Latitude 42°48'56.21"N
- o Longitude 70°46'60.00"W
- o Depth 11 m (MLLW)
- 0510D
- o Latitude 42°43'42.09"N
- o Longitude 70°46'4.01"W
- o Depth 8 m (MLLW)
- **MA NEW BEDFORD HARBOR (REVISED)** A submerged dredge pipeline is installed on the river bottom along the northwestern portion of the upper New Bedford Harbor until 30 November 2012. The pipeline originates at position 70-55-17.03W 41-38-45.01N and extends through positions 70-55-13.9W 41-38-45.66N, 70-5-11.03W, 41-38-55.0N, 70-55-10.06W 41-39-00.03N, and 70-55-08.03W 41-39-06.29N to the western abutment of the I-195 Bridge. Mariners are urged to use extreme caution in this area. The location of the submerged pipeline is indicated with lighted obstruction buoys marked -Danger Submerged Pipeline-. The submerged pipeline is an 18" diameter HDPE pipe anchored to the river bottom at regular intervals.
- **MA NEW BEDFORD HARBOR-UPPER HARBOR -** Seven dredge control systems consisting of steel piles and multiple wire rope cables are being deployed and will be maintained in the upper harbor of New Bedford Harbor. Three floating dredges will be operating within the perimeter of the pilings. The northern-most system is 100 feet south of
- the Wood Street Bridge across the entire width of the Acushnet River. The southern-most system is located at Manomet Street across the entire width of the Acushnet River starting approximately 2500 feet (0.41 Nm) north of the Route 195 and Coggeshall Street Bridges. At high tide, the traverse cable system will be nominally 1ft above the water's surface. A floating white oil boom is attached to piling as well as blinking lights located at the top of several pilings. The dredges are connected to two booster pump stations on the west side of the Acushnet River via a floating 10 and 12 inch pipelines. The dredge line continues south and crosses Pierce Mill Cove (Coffin Cove) blocking access to the cove. The dredge lines are nominally submerged at the water surface and marked approximately every 500ft with buoys. The work will be done from 17 May
- 12 October 2010. Mariners are urged to use extreme caution in this area and if transit is desired, hail on VHF Channel 77 or contact the dredges on VHF Channel 13/16 to coordinate the passage and proceed with caution after passage arrangements have been made with the dredges.
- **MA Saugus River** The Coast Guard has received reports of shoaling in the Saugus River between Saugus River buoy 5 (LLNR 24825) and Saugus River buoy 6 (LLNR 24830). All mariners are urged to use caution while transiting the area.
- MA -TAUNTON RIVER, FALL RIVER/SOMERSET-BRIGHTMAN STREET BRIDGE OUTAGE This Marine Safety Information Bulletin (MSIB) advises mariners of an unscheduled outage at the old Brightman Street Bridge, which spans the Taunton River between Somerset and Fall River, Massachusetts. On May 3, 2010, the bridge experienced a mechanical failure of the lift motor on the Fall River (East) leaf of the bridge. As a result of the failure, the Fall River leaf of the bridge remains inoperable. The Massachusetts Department of Transportation (MassDOT) anticipates the repair will be completed by early June. Until then, only the Somerset leaf of the bridge will be operable and MassDOT has authorized single leaf openings of the bridge as needed. When the bridge operates with a single leaf opening,

the horizontal clearance at the channel is approximately forty-eight feet. This clearance should be sufficient for recreational vessels. Mariners are advised to use extreme caution when navigating in the vicinity of the Old Brightman Street Bridge, and to monitor VHF channel 22 for the latest safety related navigation information. Questions regarding this bulletin may be addressed to Mr. Edward G. LeBlanc at U.S. Coast Guard Sector Southeastern New England, 401-435-2351.

RI - NARRAGANSETT BAY-MOUNT HOPE BAY - The Coast Guard will temporarily disestablish East Passage Buoy 13 (LLNR 17935) and East Passage Lighted Buoy 17 (LLNR 17965) from June 14 to 18, 2010 in order to facilitate the dead ship tow transit of the ex-USS Forrestal out of Coddington Cove and Narragansett Bay.

FIRST NORTHERN DISTRICT STAFF – NAVIGATION SYSTEMS REPORT FOR MAY, 2010

SIGNIFICANT ACCOMPLISHMENTS:

A half-day AV-Aid Verifier Updating Workshop was held at the April Awards Conference.

The ANT Bristol PATON AORs was held with all PACs being appointed. ICS forms were sent to all PACs in this AOR.

The meeting was held at ANT Woods Hole to finalize the PATON and Bridge plans for this AOR.

PACs were found and assigned for the west side of the Cape—Provincetown, Wellfleet Sesuit and Barnstable. ICS documents have been published to these PACs.

The new Bridge Database System is incredible thanks to Tom Raynor of Division 2.

SIGNIFICANT OPPORTUNITIES:

The PATON and Bridge Workshops have been re-scheduled in Division 1 Maine. The OPFAC issues, previously noted, have been resolved. PACs for this AOR have been assigned. ICS204a-CG forms and charts will be available at these workshops.

A PATON Workshops is scheduled for May 24th in Division 6. This PATON workshop is being conducted by Bob Millette and Frank MacKinnon.

The following problem areas for the PATON Verification are being researched and are in need of attention and creative solutions:

- First reports have started to some in. The quality is very high but the sample is still very small.
- We are still sorting out final details as the OPFACs prepare to get underway.
- The ADSO-NS SWH is away in Florida due to a family illness. Elizabeth Wiswall, the Division Commander, is filling in.

Navigation Systems Strategic Plan – 2010

There are three specific areas that the Navigation Systems staff is involved in a section of the First Northern Strategic Plan for 2010. One area is a major component, one is an on-going part of the NS Programs for many years and the third is a new and important area for the success of the Auxiliary in the future.

- 1. Identify, verify and report all Private Aids to Navigation (PATONs) in D1NR. Report Quarterly Results via the DSO-NS.
 - Currently, 53 Patrol Areas have been defined and assigned to PAC-Patrol Area Coordinators. (Completed)
 - ICS documents are being sent to each PAC that delineates the scope and responsibilities for their Patrol Area. (85% completed)
 - Multiple workshops are being or have been presented to train new AVs to assist with the program. (Last workshops expected in early June)
 - Bridges have been included in this program since they too are privately owned and contain navigational and protective equipment.
- 2. Maximize use of Auxiliary Web Site to centralize information about the Navigation Systems Programs.
 - Have developed an extensive Navigation Systems Web Site containing information on all five Navigation Systems Programs with access to on-line PATON and Bridge systems. (Upgrades in process)
 - Released a new version of the Bridge on-line Management System that further simplified the Bridge Reporting methods. (Completed)
 - Provide a highly professional system for managing the Auxiliary Bridge Program in D1NR.
 - Continuing to upgrade these systems. (Always looking for suggestions for upgrading the on-line systems and web site from the Navigation Systems Team)
- 3. Optimize allocation of precious volunteer time through more effective meeting protocols, reporting format and <u>use of technology</u>. (Looking for assistance from the Navigation Systems Team to develop these capabilities. I would like to see us take the lead in this field in the District as we have with the on-line reporting technology that has been developed for our program and our great web site.)



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

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Distribution is encouraged to other members of the Coast Guard and Auxiliary