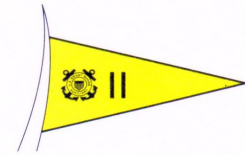


UNITED STATES COAST GUARD AUXILIARY

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OFFICE OF THE
DISTRICT STAFF OFFICER
NAVIGATION SYSTEMS

TO: Bruce Martin, District Captain 11N
Dean McFarren, COMO District 11N
Curtis Han, District Chief of Staff 11N
District 11 North Board & Staff

CC: ADSOs-NS
AV-PQS
Bill Wicks, DSO-NS 11S
Ed Martin, Auxiliary National NS Captain
Mike Salsman, PATON Administrator, D11

FROM: Michael Hay, DSO-NS 11N

SUBJ: DSO-NS D11N Monthly Report for September 2022
DATE: October 10, 2022

Highlights:

NS Program underway for 2022

- 791 PATONs to verify
- 52 bridges to survey

Waterways Management (dpw):

- Resume PATON Permit installation

National NS Work:

- Research project for auto collection of data returning to the forefront

Four more NOAA raster charts being cancelled.

Details:

- Surveyed 48 of 52 bridges - 92% complete
 - Note: Bridge Surveys were due May 31, 2022
 - Divisions 1, 3, 4, 5, 6, 11 and 12 are 100% complete with bridge surveys
- Verified at least 441 of 791 PATONs – 56% complete
 - Note: PATON verifications were due Sept 30, 2022

- Divisions 1, 3, 4, 6 and 8 are 100% completed with PATON verifications
- Jim Duncan conducted an AV-PQS class at the September PCA Faire with eight prospective AV candidates.
- Waterways Management:
 - Upgraded on line processes for adding new PATONs
- National NS Branch:
- Charts cancelled 5 October 2022:
 - 18643 – Bodega and Tomales Bays
 - 18645 – Gulf of the Farallones
 - 18651 – San Francisco Bay, Southern Part
 - 18657 – Carquinez Strait

Reports:

NS Report by Division- all Activities:

DISTRICT 113 2022, BRIDGE, ATON, & CHART UPDATING SUMMARY TABLE													Oct	7	2022				
Div.	AIDS TO NAVIGATION				BRIDGES				Private Aids				Aid Verifiers						
	B	A	P	U	AOR	Check	%	NotCheck	AOR	Check	%	NotCheck	Trainee	PQS					
1	10	1	181	11	4	4	100%	0	105	111	106%	-6	2	6					
3	28	1	37	8	15	15	100%	0	32	32	100%	0	0	4					
4					2	2	100%	0	70	70	100%	0	0	0					
5	11		103		11	11	100%	0	103	97	94%	6	0	6					
6	2		71	11	2	2	100%	0	69	69	100%	0	1	1					
8			18		1		0%	1	18	18	100%	0	0	1					
10					9	6	67%	3	55		0%	55	0	3					
11			44	5	0	0	100%	0	145	44	30%	101	0	3					
12	8				8	8	100%	0	194		0%	194	0	4					
Total	59	2	454	35	52	48	92%	4	791	441	56%	350	3	28					
Total Aids to Navigation					550					Number of members submitting an ATON or CU Reports					26				
Total Chart Updating 1/1/22 to 12/31/22					0					B=Bridge, A=ATON, P=PATON, U=Unauthorized									
Total ATON/CU Activity					550					C=Chart Update, CP=Coast Pilot Update, CCP=Charting Credit Points									
AUXDATA II 2022 Bridge & ATON Activity					2-Oct		2022		CHART UPDATING SUMMARY TABLE			OCT 7 2022		Type					
AUXDATA II 2022 Bridge & ATON Activity									Div.			113 Jan 1 to Dec 31, 2022		113 Jan 1 to Dec 31, 2023		Reports			
									Reports			0		CUP		Reports			
									1										
1					1		9		3			0		0					
3					8		9		4			0		0					
4									5			0		0					
5							1		6			0		0					
6							2		8			0		0					
8									10			0		0					
10									11			0		0					
11									12			0		0					
12					7		2		Total			0		0		0			
Total					16		23		# Member submitting NOAA-Coast Survey Report-ASSIST			0		0		0			
Total Aids to Navigation					232		42%		Total			0		0		0		RC=26	

Note: Reported Oct 7, 2022

AuxData II Reporting:

A/PATON WORK REPORTED IN AUXDATA II					
Codes 30, 31, 32					
Divison	Divisions Reporting	People Reporting	Events	Hours Reported	Aids/Bridges Reported
1	3	55	7	17	119
3	1	2	14	28.5	55
5	1	1	3	8	9
6	1	2	8	10.25	38
11	1	2	3	12	
12	1	2	2	7	9
Totals	8	64	37	82.75	230

Note: AuxData II reporting is low and we’re encouraging people to complete AUXDATA II input for work completed in order to receive due credit for their work and effort.

Around the Horn (District 11N):

- Div 1- All bridges and PATONs completed for both Div 1 and 4. BZ to Terry Blanchard for all his work in completing Div 4’s PATON verifications and bridge surveys in addition to his contributions to Div 1.
- Div 3 – All bridges surveys and PATON verifications completed on time. BZ to Jim Ducan for conducting AV-PQS class at September PCA Faire.
- Div 4 – New SO-NS identified, Kevin Quinn and potential AV, Michael Brown identified – Michael Brown attended C School and AV-PQS class.
- Div 5- All bridges completed. PATONs nearing completion.
- Div 11 – Working with Avs, Peter Rast and Roger Haynes towards updating permits for Tahoe City, Tahoe Keys, Tahoe Keys HOA, Fluer d’Lac and four NASA buoys.

DSO 11N Goals & Objectives:

- **COMPLETED:** Distribute all electronic and paper PATON verification sheets to SO-NSs in both 11N and 11S by mid-February 2022
- **COMPLETED:** Distribute all electronic and paper Bridge survey sheets to SO-NSs in 11N by end of January 2022
- Complete 100% of District 11N bridge surveys by May 31, 2022 – **92% completed on time.**

- Complete 100% of District 11N PATON verifications by September 30, 2022 - **56% completed on time.**
- Calculate and nominate AV personnel for NS awards at the end of the year
- Improve count of AV personnel in district 11N – **6 planned attendees for PCA Faire in Septembe – 8 candidates showed up for class.**

Waterways Management (dpw) PATON Administration Goals:

- Stay current with all IATONIS changes approved during the year – **Current as of today’s date.**
- Input all PATON verification data into Access db and IATONIS on a timely basis - **Current**
- Define and implement a feedback loop for Discrepant Aid follow-up – **initiated some new ideas related to Bair Island and Lake Tahoe**
- Report updated progress monthly – **done and current**
- Eliminate roadblocks to institutionalizing new Access db for multi-user usage
- Support DSO-11S in enhancing their program
- Ensure currency of Class I and II PATON verifications for District 11

National Goals:

- **COMPLETED:** Host C-06 School in Alameda during August 2022 – **16 students from around the country participated in the class.**
- **COMPLETED:** Teach one session of C-06 School – **will co-teach Aug 12 C School**
- **COMPLETED:** Participate in drafting of program materials as needed
- Continue participation in CG Research department project to enhance Navigation Systems reporting requirements as required.

Challenges/Obstacles/Opportunities:

In recognition of COVID impacts, serious weather conditions impacting outside activities, retirement and loss of AV personnel, loss of facility support and restrictions on mode of travel to do verifications, it is understood that 100% completion is a stretch goal for 2022. Consequently, priorities have been established to complete surveys and verifications in the following order: Bridges, Class I, Class II and then Class III PATONs

Photos:

None

Nav Notes: Surveying America’s Waterways with USACE

What Does a survey vessel actually measure?

Date Posted: 2022-05-23

Source: Bob Sherer, Contributing Editor, Waterway Guide Media



Inside the EVANS Survey Vessel

Avoiding groundings is always a prime concern for those cruising the shallow sections of the Atlantic Intracoastal Waterway (AICW) as well as other navigable channels, creeks and bays of America's coastal and inland waters. U.S. Army Corps of Engineers (USACE) personnel conduct ongoing surveys of waterways throughout their areas of responsibility across the United States to gather data that is critical for planning where to dredge and in providing navigation information to mariners. Distributed through various platforms including navigation apps and online, the USACE surveys are becoming increasingly popular as additional sources of data and visual references.

Bob Sherer (aka Bob423), a contributing editor to Waterway Guide Media, met with Matt Foss, Chief of Survey for the Charleston District, USACE on April 26, 2022, to discuss the methodologies and procedures used by USACE in acquiring data and how it is managed and distributed. Using his social media channels, Bob queried members of his ICW Cruising Guide Facebook page to submit questions that are included in the interview. Bob has also been instrumental in working with USACE and [Aqua Map Master](#) mobile navigation app to arrive at solutions for displaying surveys as overlays on the app's charts.

Q1: What does a USACE survey vessel measure? The answer to this is rather complicated. Surprisingly, what they don't measure is water depth. Obviously, the survey vessel floats in the waters of the ICW but with sophisticated instruments, they measure the distance from the calculated Mean Lower Low Water (MLLW) for points in the survey to the channel bottom.

For the calculations, we use Real-Time Kinematic (RTK) GPS to get a very accurate position in XY and Z. A Geoid model is used to correct that to NAVD88 then an orthometric height correction (distance between NAVD88 and MLLW) or VDatum to correct from NAVD88 to MLLW, or whatever tidal datum we are using. Effectively, we create a moving tide gauge on the vessel so measurements are unaffected by wind-driven tides or high water due to storm events.

After all the calculations, we wind up with the distance from the red line (Chart Datum) to the orange line (Channel Bottom) which is the number displayed on a survey as shown in Fig 1. Such a calculation can be

done only if you have an extremely accurate GPS not only in XY but also in Z (height). Our GPS readings are corrected in real-time from a sensor network on land to an accuracy that would fit inside a golf ball.

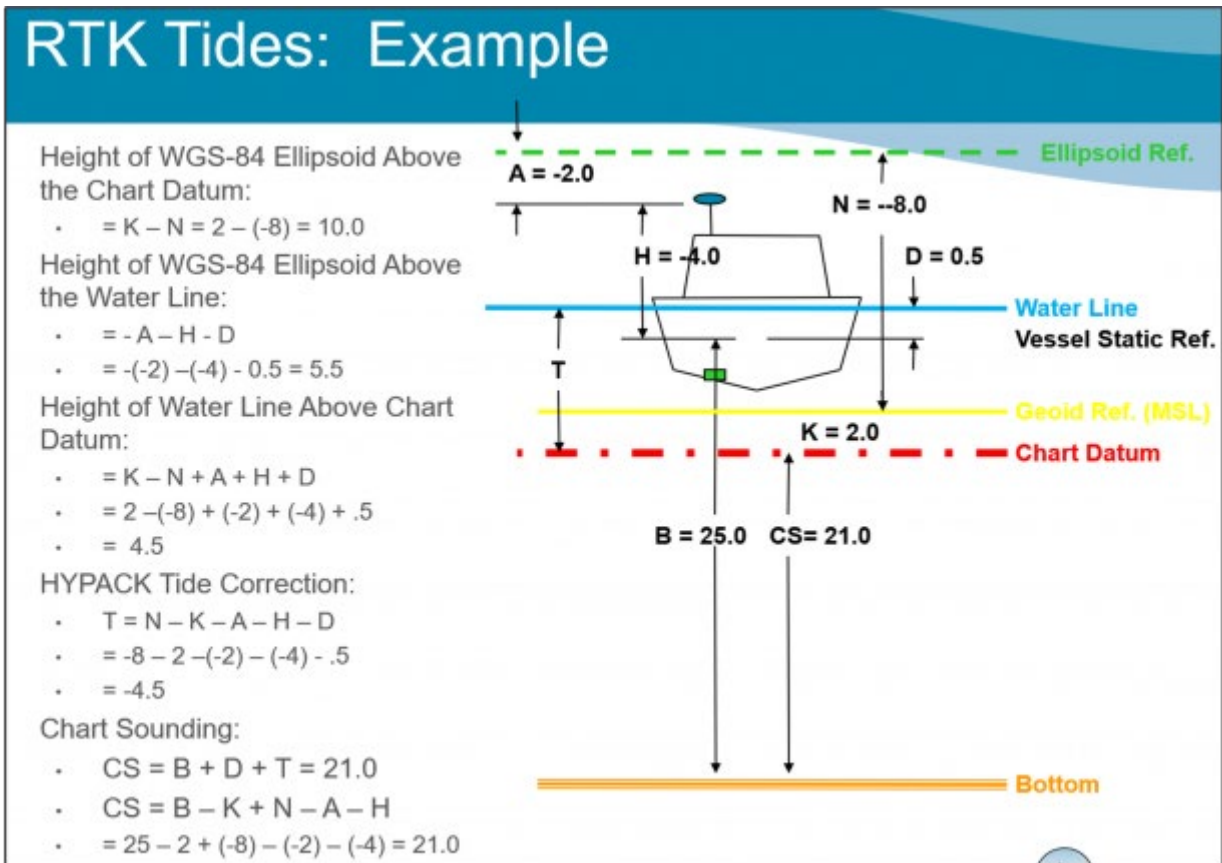


Fig 1 RTK Tides