



U.S. Coast Guard Auxiliary

District 11 Northern Region

Serving Northern California, Nevada, Utah

District Navigation Systems

Covering Aids to Navigation, Bridges, & Chart Updating Activities

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

DSO-NS Northern Region Report No. 2016-10

Date: November 3, 2016
From: DSO-NS 11(NR)
To: DCAPT-RBS & All D11 Auxiliary Members for Immediate Action
Info: EXCOM, Board & Staff, SO-NS, FSO-NS & Aid Verifiers, D11 (dpw) & D11 (dpa-n)
Subject: DSO-NS October Report & Bulletin

SO-NS please contact each FSO-NS to see that they receive a copy of this bulletin.

Additional copies can be downloaded at:

<http://wow.uscgaux.info/content.php?unit=113&category=navigation-systems>

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1. Best Practices for Leap Second Event Occurring on 31 December 2016:

This paper is intended as a best practices guide to be used for the upcoming Leap Second event scheduled for Saturday, 31 December 2016. Sponsored by the Department of Homeland Security's National Cybersecurity and Communications Integration Center in coordination with the United States Naval Observatory, National Institute of Standards and Technology, the USCG Navigation Center, and the National Coordination Office for Space-Based Positioning, Navigation and Timing. This product is intended to assist federal, state, local, and private sector organizations with preparations for Saturday, 31 December 2016 Leap Second event. The decision to add a leap second is made by the International Earth Rotation and Reference Systems Service, an international standards body, to accommodate for variations in the Earth's rotational speed. The U.S. federal government's Global Positioning System (GPS) broadcasts leap second correction information in the navigation message. However, it is the responsibility of users to assure that their hardware and software recognizes and manages the leap second correctly; errors and equipment failures can occur when GPS receivers and clocks process the leap second signal incorrectly. Please ensure all software and firmware is up to date. Please report operational challenges you experience to the following organizations:

For complete information and instruction go to News and Notices at **U.S. COAST GUARD NAVIGATION CENTER** at <http://www.navcen.uscg.gov/> or go directly to:

<http://www.navcen.uscg.gov/pdf/gps/BestPracticesForLeapSecond12312016.pdf>

GPS — United States Coast Guard Navigation Center (NAVCEN) 703-313-5900 or via the NAVCEN Website, <http://www.navcen.uscg.gov/> under "Report a GPS Problem" NIST Time

2. 2016 NAVIGATION SYSTEMS REPORT:

This report activity table covers all ATON, PATON, Bridge, & Chart Updating activities & reports received by D11 (dpw), NOAA-NOS & AUXINFO through **October 31, 2016**.

2016 DIVISIONAL, BRIDGE, ATON, & CHART UPDATING ACTIVITY SUMMARY REPORT

Div.	AIDS TO NAVIGATION ACTIVITY							Bridges Assigned				PATON's Assigned				2016		
	Bridge	Bridge AUX Data Lead only	ATON	ATON AUX DATA Lead only	PATON	PATON NO Permit	PATON AUX DATA Lead only	AOR	Check	% Done	Still to Do	AOR	Check	% Done	Still to Do	A V 's	P Q S	
1	4		1	1	104	4	64	4	4	100%	0	104	104	100%	0	3	5	
3	21	11	3	1	44	20	16	15	15	100%	0	41	41	100%	0	2	3	
4	2				68	1		2	2	100%	0	68	68	100%	0	1	1	
5	13	9			101		78	11	11	100%	0	103	103	100%	0	5	4	
6	2	2			67	3	27	2	2	100%	0	67	67	100%	0	1	2	
8	1	1			5		5	1	1	100%	0	5	5	100%	0	1	0	
10	12				60	1	3	9	9	100%	0	58	58	100%	0	0	3	
11			1		140	4	114	0		NA	0	140	140	100%	0	3	3	
12	8	3		3	150	8	189	8	8	100%	0	150	150	100%	0	2	4	
Total	63	26	5	5	739	41	496	52	52	100%	0	736	736	100%	0	18	25	
	2016 D11NR Chart Updating Year Jan 1, 2016 to Mar 31, 2016			2016 D11NR Chart Updating Year April 1, 2016 to Dec 31, 2016			2016-2017 NOAA-NOS Chart Updating Year Apr 1, 2016 to Mar 31, 2017											
Div.	CU Reports	2nd Ob	CUC (26)	CU Reports	2nd Ob	CUC (25)	CU Reports	2nd Ob	CUC (25)									
1																		
3	5	.5	130	5	.5	130	5	.5	130									
4																		
5	1	.5	26	1	.5	26	1	.5	26									
6																		
8																		
10																		
11																		
12																		
Total	6	1	156	6	1	156	6	1	156									
Total D11 CU Reports 1/1/16 through 12/31/16 →				6	Total D11-NOAA CU & CUC 4/1/16 through 3/31/17 →				6	156								
Total Aids to Navigation Reports				848	Total Members Submitting ATON & CU Reports in 2016 →				42									
Total Aids to Navigation in AUXDATA*				527	527 out of 848 ATON & CU reports showing up in AUXDATA →				62%									
Total NOAA Chart Updating Reports				6	A= ATON, P= PATON, B= Bridges, U= Unauthorized, CU=Chart Updates													
Total ATON & Chart Updating				854	CUC = Chart Update Points (Stop Gap) = 26 CUP awarded by D11NR DSO-NS for each confirmation of a Report you recently submitted via NOAA's Nautical Discrepancy Report System.													
➤ Note: *Red numbers above is the information from AUXINFO as of October 31, 2016 update.																		
➤ NOAA-NOS Chart Updating Year is from - April 1 through March 31 each year????																		
➤ D11NR Chart Updating Year is from - January 1 through December 31 each year.																		
➤ Note: The Green number under "2 nd Ob" indicates secondary Chart Updating Observers.																		
✓ Note: "ALWAYS submit a 7030 for all ATON, PATON, Bridge, & Chart Updating Activity. Your work is not completed until your 7030 is in your FSO-IS hands."																		
✓ "Always check AUXINFO for your ATON, Bridge, & Chart Updating activity. If you don't find your activity recorded and you have submitted the proper ANSC 7030, check with your FSO-IS or SO-IS for help." If you are not satisfied always contact the DSO-NS for help.																		

3. NOTICE TO ALL CURRENT DISTRICT 11 AID VERIFIER'S: D11 is coming to the end of its 5 year Aid Verifier re-certification program period on December 31st.

A. Starting January 1, 2017 all District 11 Aid Verifiers must hold or completed the following to be certified for 2017.

1. "Auxiliary Aids to Navigation (ATON) Verifier PQS" qualification & certification.
2. Started 1 January 2017 must have completed the USCG Mandatory Training and keep up with the one that have a 5 Year requirements.
3. TCT current. (5 Year & Annual workshop)
4. Have submitted one ATON or one PATON or one Bridge report in 2016. Except those AV-PQS qualified in 2016 and not able to verify aids in 2016.

B. For Non-AV-PQS certified Aid Verifier 2016, current "Certified Aid Verifiers" maybe granted a training waiver for 2017 by the DSO-NS if you're in AV-PQS training... We need your help so please complete your AV-PQS training ASAP or before December 31, 2017st. If you need help or have any question please contact the DSO-NS.

C. Any Auxiliarist who would like to assist the Coast Guard in keeping our district waterways safe for navigation? We need your help in keeping all of our bridges & aids to navigation watching properly. The auxiliary is tasked with verifying annually around 750 private aids to navigation (PATON) and 52 bridges each year. We also report any non-permitted PATONs found and Coast Guards ATON discrepancies found. The only way we can carry out our district tasking is to have properly trained Aid Verifiers.

D. The training prerequisites need before completing the AV-PQS course:

- 1) You are required to have a copy of the Auxiliary Aids to Navigation (ATON) Verifier PQS sign off booklet,
- 2) BQ or AX member,
- 3) Completion of the 4 or 8 hour TCT,
- 4) Completing ICS 100 and ICS 700,
- 5) Complete the USCG Mandatory Training and keep up with the one that have a 5 Year requirements.
- 6) All Major Tasks can be signed off by any Certified Aid Verifier with the exception of Tasks 3.6, 5.1, 5.2, 5.3, 6.6. 7.2 & 7.3. These tasks shall be signed-off only by the DSO-NS.

The sign off booklet and training material can be downloaded from the following National Navigation Systems web sites.

- 1) National Navigation Systems web site: <http://wow.uscgaux.info/content.php?unit=P-DEPT&category=navigation-systems>
- 2) D11NR Navigation Systems web site: <http://wow.uscgaux.info/content.php?unit=113&category=navigation-systems>
- 3) D1NR Navigation Systems web site: <http://www.uscgaan.com>

These three web sites can just about answer any and all of your questions about Aid Verifier PQS qualification, aids to navigation, bridges & chart updating. Take a good look at all three (3) by navigating through these excellent web sites.

4. REVIEW OF THE COMPASS ROSE & MAGNETIC VARIATION

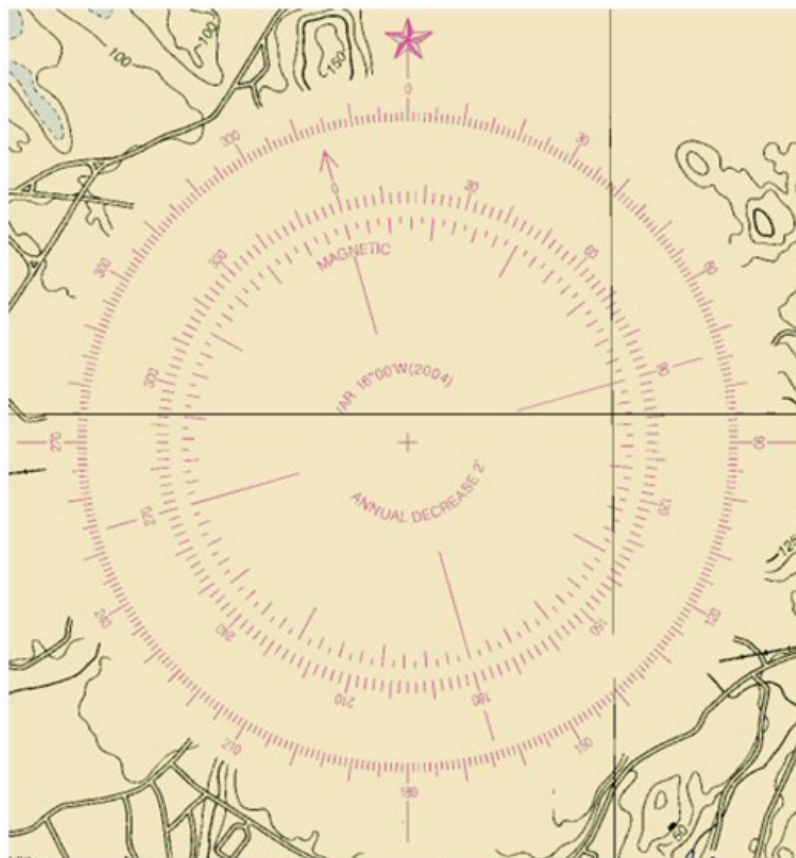
The Compass Rose & Magnetic Variation

(Bowditch, *The American Practical Navigator*, 2002)

A circle graduated in degrees, clockwise from 0° at the reference direction to 360° and sometimes also in compass points. Compass roses are placed at convenient locations on the Mercator chart to facilitate measurement of direction. The compass rose can be used by the mariner to help lay out a course with a protractor.

Compass roses on NOAA charts show two graduated scales. One is referenced to True North, while the other is referenced to Magnetic North. Gyro compasses used aboard vessels yield "True" headings, while magnetic compasses will yield magnetic headings. If a magnetic compass is in use, mariners must be able to convert back and forth between true and magnetic headings. They accomplish this by either adding or subtracting the magnetic variation—which is the angle between magnetic and geographic meridians.

Magnetic variation is given in degrees and minutes, with an easterly or westerly component. If converting from magnetic headings to true headings, a west variation is subtracted from the magnetic to obtain true. An easterly variation would be added.



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“All auxiliary vessels when underway should be checking all Aids to Navigations for any type of Discrepancy and also should be checking the Charts, Coast Pilot & Shoreline for any type of Charting Errors as well as providing update reports on Charts, & Coast Pilot in your AOR”

DATES OF CHART LATEST EDITION TABLE
In D11 Northern Region November 3, 2016

Chart No.	Chart Scale	Edition No.	Traditional Paper Chart Edition Date	Last Correction Date from LNM Update for NOAA On-Line-Viewer & RNC & ENC Navigational Charts	
18600	196,948	15	Mar 2011	LNM 43/16	10/27/2016
18020	1,444,000	39	Jan 2012	LNM 43/16	10/27/2016
18010	811,980	22	Sep, 2012	LNM 43/16	10/27/2016
18022	868,003	36	Jun 2012	LNM 43/16	10/27/2016
18601	40,000	14	Feb 2007	LNM 43/16	10/27/2016
18602	40,000	13	Feb 2012	LNM 43/16	10/27/2016
18603	40,000	17	Mar 2012	LNM 43/16	10/27/2016
18605	15,000	13	Dec 2010	LNM 43/16	10/27/2016
18620	200,000	24	Feb 2012	LNM 43/16	10/27/2016
18622	25,000	56	APR 2016	LNM 43/16	10/27/2016
18623	40,000	12	Jan 2012	LNM 43/16	10/27/2016
18626	40,000	16	Dec 2012	LNM 43/16	10/27/2016
18628	10,000	9	Oct 2012	LNM 43/16	10/27/2016
18640	207,840	27	Oct 2015	LNM 43/16	10/27/2016
18643	30,000	18	Dec 2009	LNM 43/16	10/27/2016
18645	100,000	28	May 2013	LNM 43/16	10/27/2016
18647	40,000	16	Mar 2009	LNM 43/16	10/27/2016
18649	40,000	68	Jun 2013	LNM 43/16	10/27/2016
18650	20,000	57	Dec 2013	LNM 43/16	10/27/2016
18651	40,000	45	Dec 2013	LNM 43/16	10/27/2016
18652 SC	40,000:80,000	36	Feb 2012	LNM 43/16	10/27/2016
18653	20,000	12	Oct 2012	LNM 43/16	10/27/2016
18654	40,000	45	Jan 2012	LNM 43/16	10/27/2016
18655	10,000	59	Oct 2006	LNM 43/16	10/27/2016
18656	40,000	56	Aug 2010	LNM 43/16	10/27/2016
18657	10,000	19	Nov 2005	LNM 43/16	10/27/2016
18658	10,000	31	Sep 2007	LNM 43/16	10/27/2016
18659	10,000	16	Jan 2012	LNM 43/16	10/27/2016
18660	20,000	3	Sep 2005	LNM 43/16	10/27/2016
18661 SC	40,000	30	Mar 2009	LNM 43/16	10/27/2016
18662 SC	40,000	22	May 2009	LNM 43/16	10/27/2016
18663	20,000	6	Apr 2006	LNM 43/16	10/27/2016
18664	20,000	12	Aug 26, 2000	LNM 43/16	10/27/2016
18665	40,000	11	Aug 2004	LNM 43/16	10/27/2016
18666	10,000	1	Nov 24, 2001	LNM 43/16	10/27/2016
18667	20,000	12	Aug 26, 2000	LNM 43/16	10/27/2016
18680	210,668	32	May 2013	LNM 43/16	10/27/2016
18682	20,000	15	APR 2016	LNM 43/16	10/27/2016
18685	50,000	34	Sep 2012	LNM 43/16	10/27/2016
18686	40,000	13	Jul 17, 1999	LNM 43/16	10/27/2016
18700	216,116	22	Jul 2003	LNM 43/16	10/27/2016
Coast Pilot	Volume 7	48	Updated weekly	Last Corrected through 10/23/2016	
CG Light List Weekly Updates	Volume 6	2016	Updated weekly	Last Corrected though LNM 43/16 – Dated 10/26/2016	