TSMAD29_DIPWG7 13.2A

Paper for Consideration by TSMAD29/DIPWG7

New issues in S-64 new edition around Polar ENC

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Executive Summary:	This paper request fixing of chart cells for Polar ENC test
Related Documents:	N/A.
Related Projects:	Recently published new edition of S-64

Introduction / Background

1. So called "ECDIS anomalies" have been detected in the field and it has been judged that one of the reasons has been lack of exact instructions.

2. IHO has been working hard to publish new editions of the IHO ECDIS related standard addressing the ECDIS anomalies.

3. As usual we human beings are unable to predict and forecast every detail before one of us make full implementation. We at Furuno have been implementing the new editions for our ECDIS models. In this process we have found a few new issues which were not discussed during the development of the new editions for IHO ECDIS related standard.

4. Some of these new findings have been reported to IHO between TSMAD28/DIPWG6 and HSSC6 meetings. Some of these new findings have been too late for even HSSC6 meeting. This document informs about a not yet handled new finding.

Analysis/Discussion

5. This document is about S-64 test: 3.9 Display of ENC covering Polar Regions. S-64 workshop in TSMAD27, Dec 2013 drafted the current test including test method, screen samples and ENC charts for the test. The workshop agreed that significant feature of the test method is that there are: restricted area located to the edge between chart cells AA1NPOL3 and AA1NPOLA, a sector style restricted area in AA1NPOLA and a small restricted area in the edge between chart cells AA1NPOLA and AA1NPOLB. The screen samples of the tests focus on these features as they create simple to observe and judge details for the test. The writer attended the workshop in which Richard Fowle/IC-ENC edited on spot the ENC charts which were then used to create the test method and the screen samples on the spot.

6. The Jan 2015 posting of the test ENC charts "*S-64_e3.0.0_ENC_Unencrypted_TDS_Jan_2015.zip*" in the IHO website for the S-64 include such versions of the charts AA1NPOL3, AA1NPOLA and AA1NPOLB which miss the Dec 2013 added restricted areas. These charts should be replaced by the original Dec 2013 workshop charts including the restricted areas. I have kept my Dec 2013 copies of the test charts and they could be used to fix the content of the (see attached zip-file "*Test 3_9 Polar ENC - Dec2013.zip*"). Note that my copies do not include catalog.031 file which should be created for the legal dataset.

7. Good thing in this issue is that there is no need to change the S-64 Test Instruction Manual. Just a need to fix the content of the zip-file for the unencrypted test material.

Conclusions

8. This is a true practical problem which requires a solution.

Recommendations

9. It is recommended to accept the proposal as proposed.

Justification and Impacts

10. This issue do not request any change for the printed text or published screen samples. This issue just request fix of the content of the submitted test charts.

11. There is still time until Sep 2015. TSMAD29/DIPWG7 meeting in Feb 2015 can agree with proposal and fix the content of the test material. As a result everybody would still have many months to complete their related implementations and type approvals.

Action Required of TSMAD and/or DIPWG

The TDMAD and/or DIPWG are invited to:

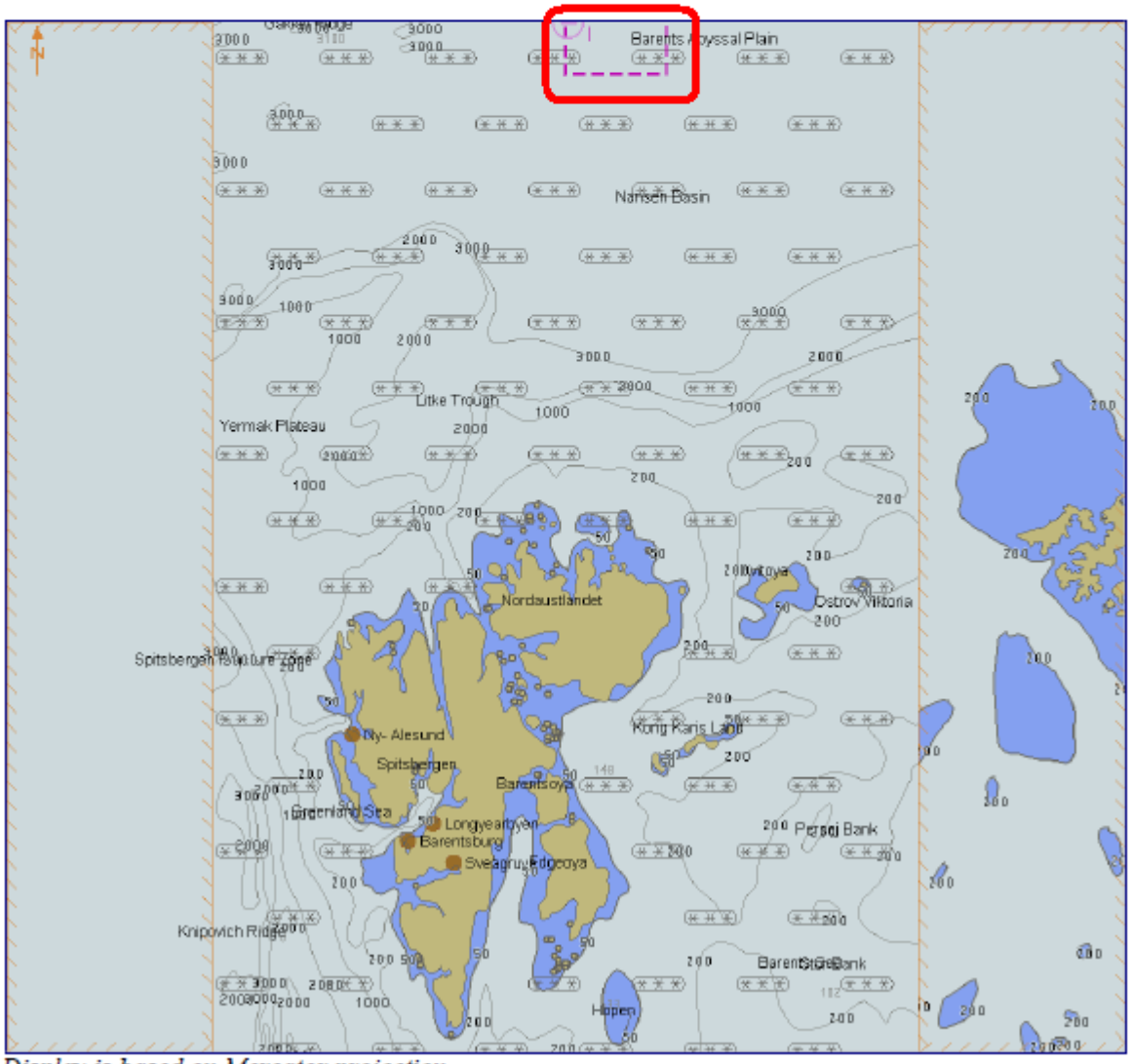
a) Discuss and agree the issue presented in this paper

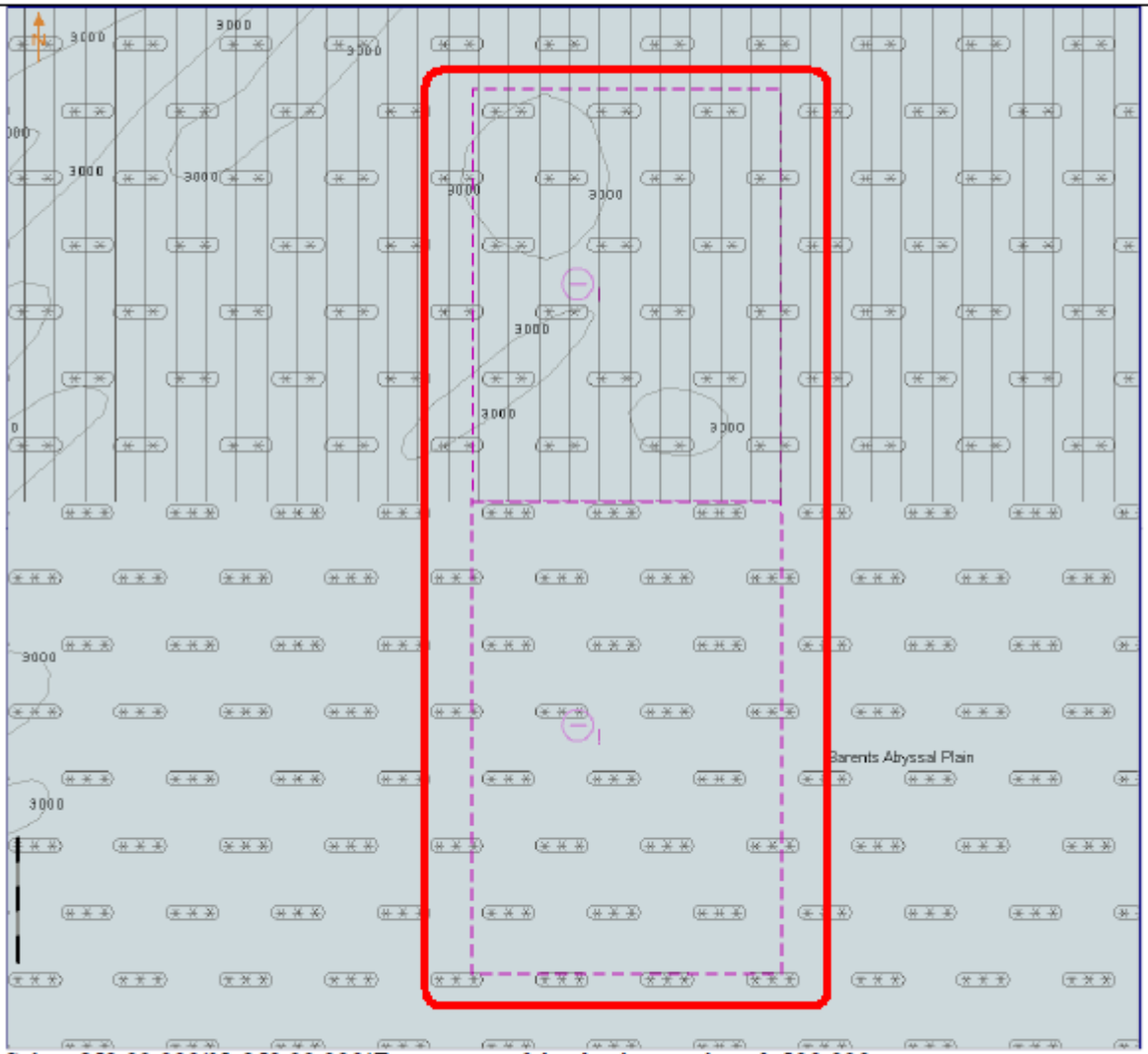
b) Fix the content of the zip-file for the test material for the new edition of the S-64

Annex – Description of lost restricted area in Polar ENCs

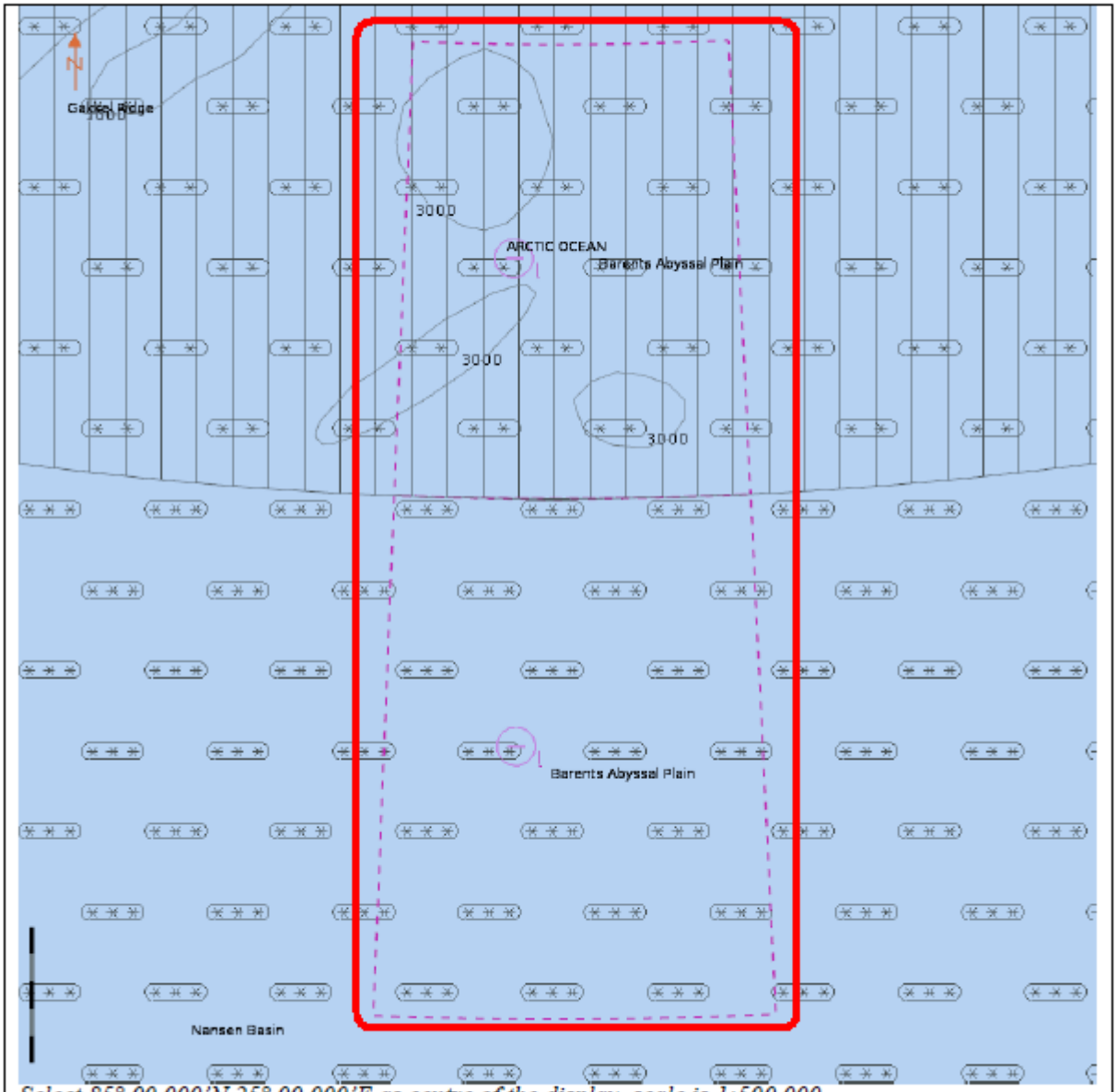
Following screen samples have a red box highlighting lost restricted area in each related test. There are totally 3 different restricted areas. Two close to the North Pole and one crossing latitude line 85N.

3.9.1 Display of ENC Data up to 85 degrees

Test reference	3.9.1	IHO reference	S-52 10.1.10.2
Test description			
Display of charts up to 85 degrees.			
Set up			
Load all cells from 3.9 Polar ENC Data *Select Display mode = Other* *Select Safety Contour = 30 metres* *Select Plain Boundaries* *Select Paper chart symbols*			
Action			
Select chart AA1NPOL3.000 at compilation scale (1:3 000 000) Check ENC symbols shown in the ECDIS against the graphical plot.			
Result			
The ENC should be displayed in the ECDIS like one of the options below.  *Display is based on Mercator projection*			



Select 85° 00.000'N 25° 00.000'E as centre of the display, scale is 1:500 000
Display is based on polar projection



Select 85° 00.000'N 25° 00.000'E as centre of the display, scale is 1:500 000
Display is based on polar projection

Test reference	3.9.2	IHO reference	S-52 10.1.10.2

Test description

ONLY TO BE TESTED FOR EQUIPMENT CLAIMING THE CAPABILITY TO DISPLAY ENC DATA AT LATITUDES GREATER THAN 85 DEGREES

Display of charts above 85 degrees.

Set up

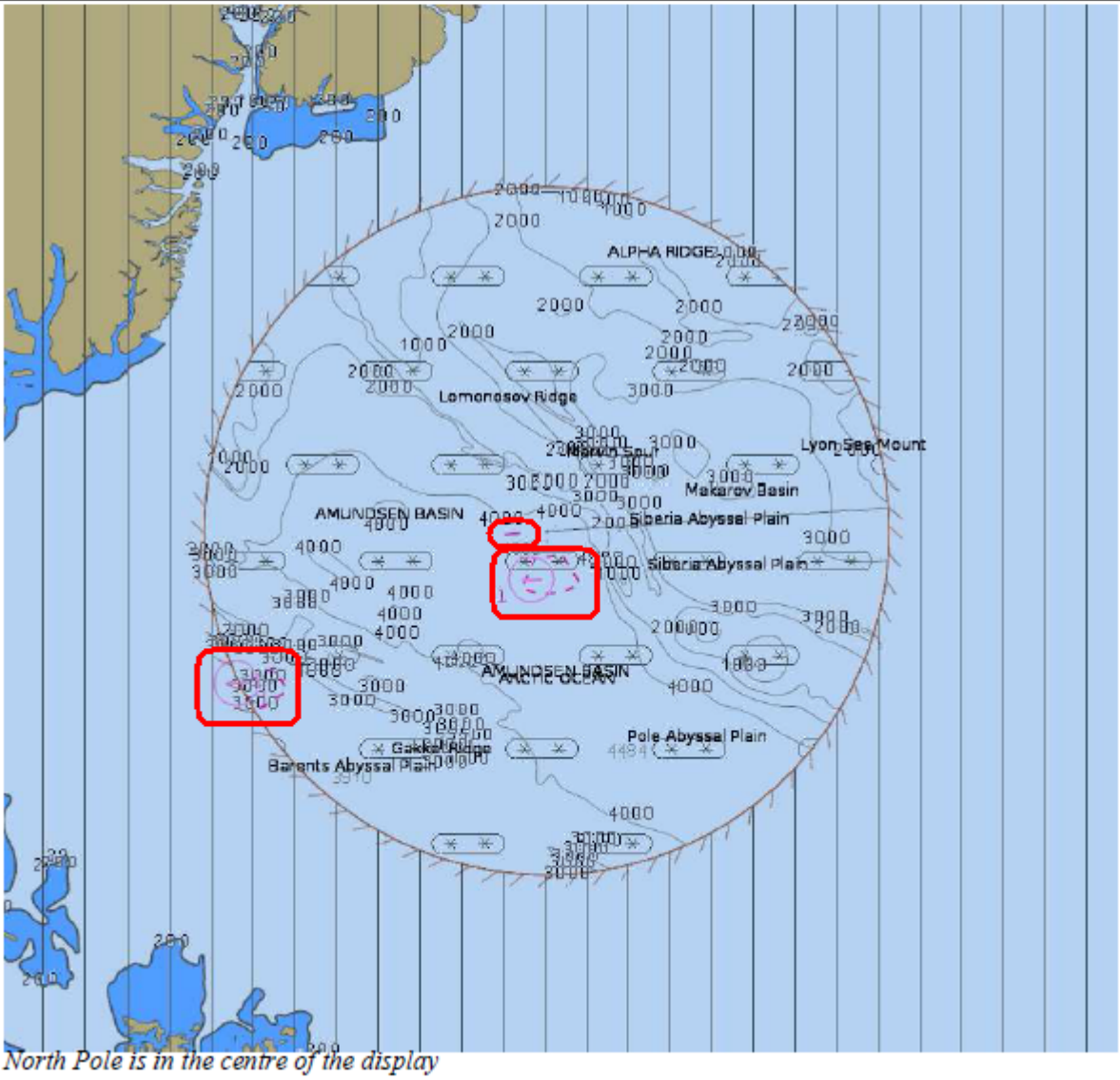
Load all cells from 3.9 Polar ENC Data
Select Display mode = Other
Select Safety Contour = 30 metres
Select Plain Boundaries
Select Paper chart symbols

Action

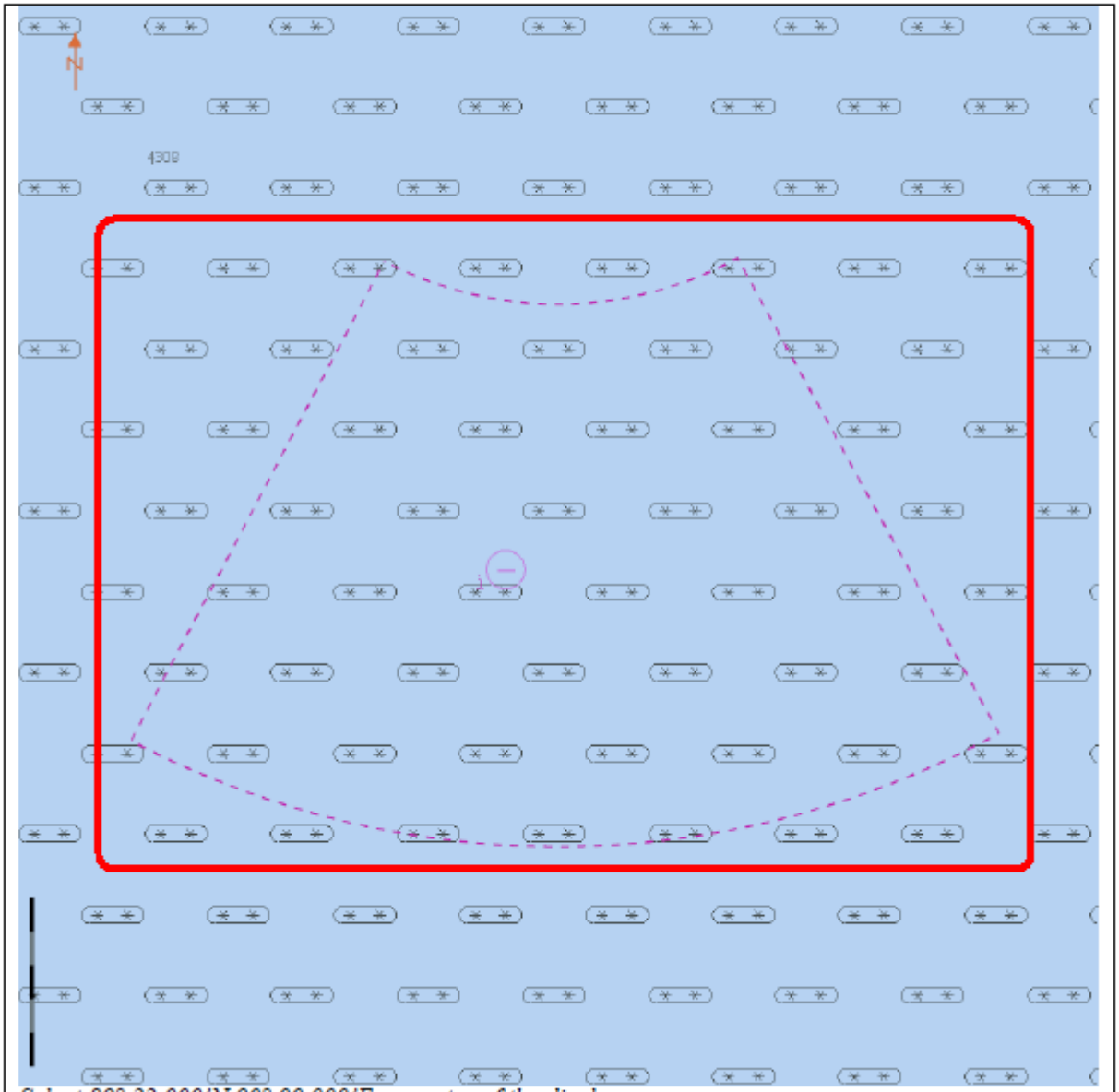
Check ENC symbols shown in the ECDIS against the graphical plot.

Result

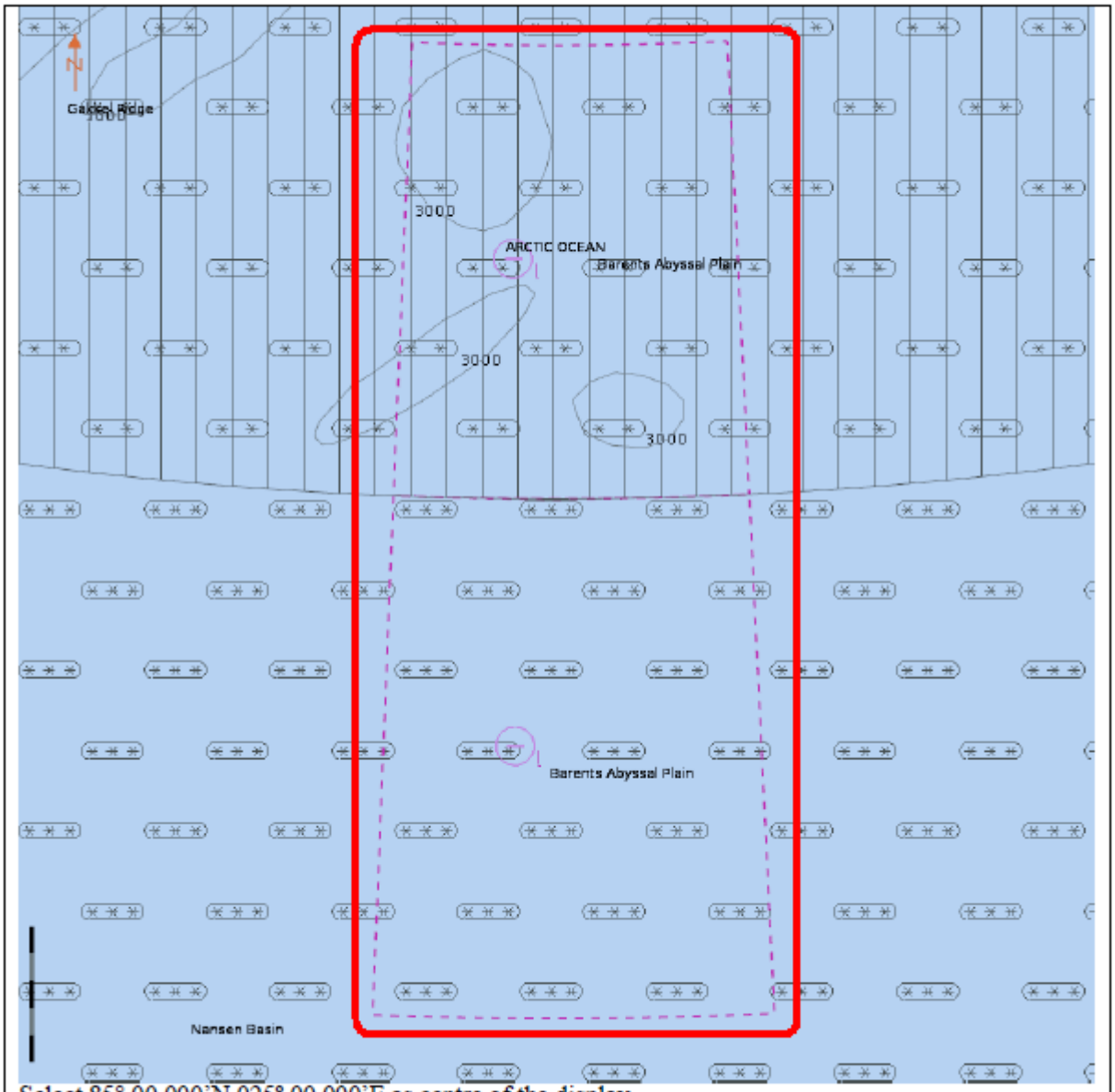
The ENC in the ECDIS should be shown like in the picture below.



North Pole is in the centre of the display



Select 89° 22.000'N 90° 00.000'E as centre of the display



Select 85° 00.000'N 025° 00.000'E as centre of the display