Paper for Consideration by the ENCWG

Issues on S-64 Ed 3.0.2

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Executive Summary:	This paper is about issues found in the latest edition 3.0.2 of S-64.
Related Documents:	S-64 Ed 3.0.2, Jul 2017
Related Projects:	N/A

Introduction / Background

1. New edition 3.0.2 of S-64 was published by IHO in Jul 2017. Some of the ENC charts in the associated datasets were amended compared to previous edition 3.0.1. It is looking like that the related test instructions, expected results and screen samples in the printed test instructions were not amended accordingly.

2. In previous years there has been quite many small issues in the screen samples. This year there is very little to report for issues which are outside of the amended ENC charts in the associated test datasets.
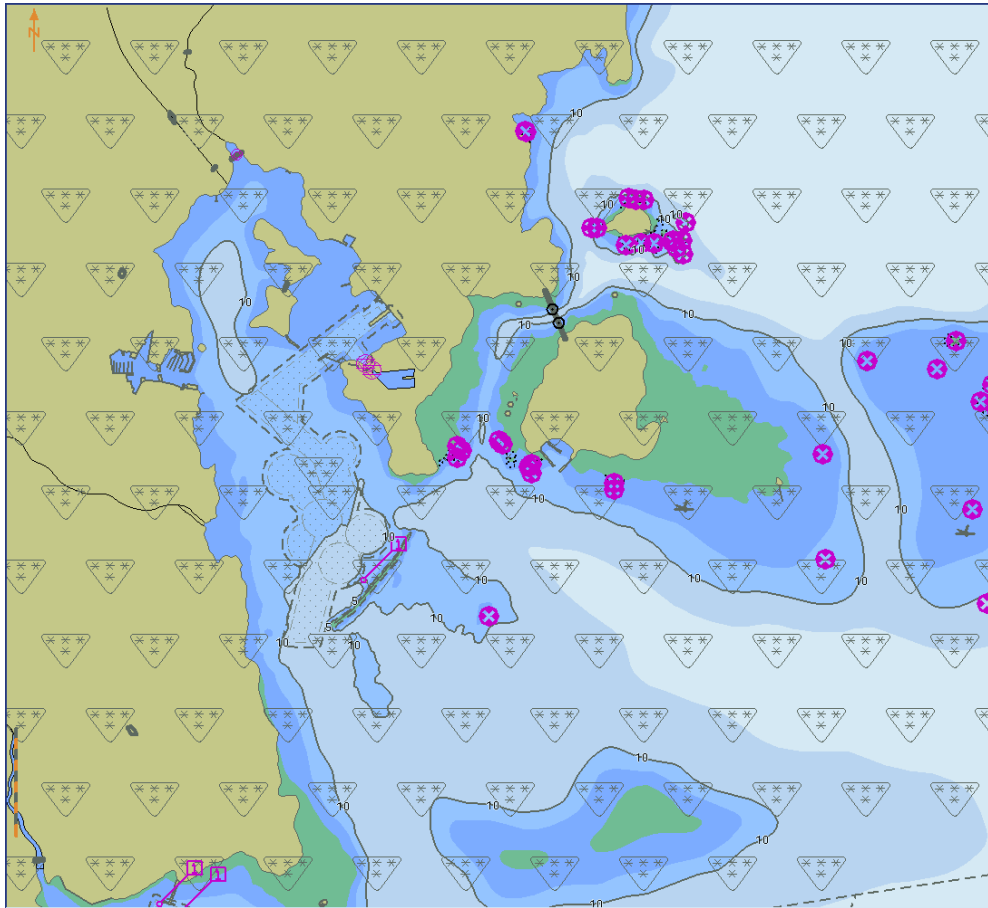
Analysis/Discussion

3. Quite large part of the test charts has actually been amended between editions 3.0.1 and 3.0.2. Many amendments have been "don't care" for the screen samples. However, there are quite many charts which has been changed to be not compliant with screen samples, test instructions or expected results

- 2.1.1 Power Up\ENC_ROOT**GB4X0000**.000
    - M_QUAL/CATZOC areas reorganized
    - edition changed from 2 to 1
- 2.1.1 Power Up\ENC_ROOT**GB5X01NW**.000
    - M_QUAL/CATZOC areas reorganized
- 2.1.1 Power Up\ENC_ROOT**GB5X01NE**.000
    - M_QUAL/CATZOC areas reorganized
- 3.6 Display priorities\ENC_ROOT**2J5X0001**.000
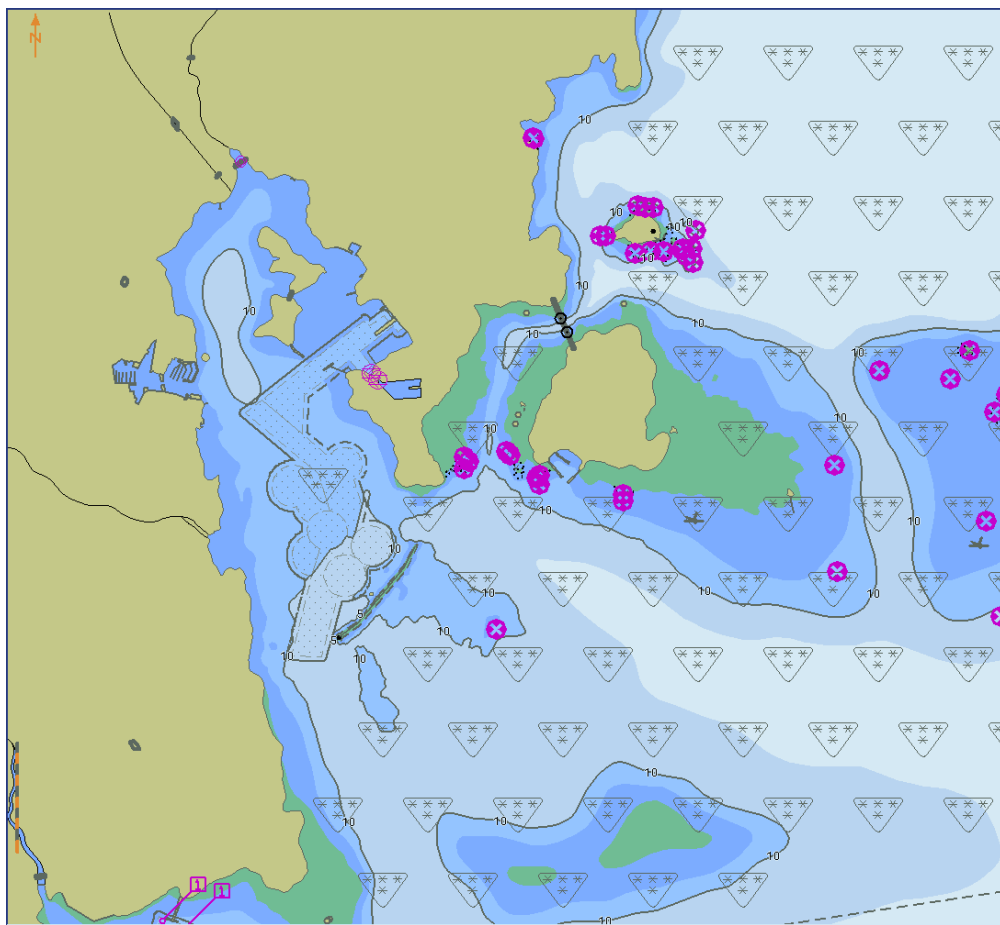   - Content of one test case changed significantly

4. M_QUAL/CATZOC areas of charts GB4X0000, GB5X01NW and GB5X01NE has been amended.

- One change has been removal of overlapping M_QUAL/CATZOC areas. This change itself is obviously welcomed as overlapping M_QUAL are not allowed (See S-58), but the screen samples in **tests 2.1.1, 2.2.2, 2.2.4, 2.2.6, 2.2.8 and 3.7.1b** have not been updated.
- Another change has been that there is no M_QUAL/CATZOC available for land areas. It should be noted that according S-57 UOC the M_QUAL is mandatory to cover areas containing depth data or bathymetry and that S-58 has extensive test for this mandatory use. However, there is no limitation in S-57 UOC nor in S-58 to use M_QUAL over land areas. This change of removal of M_QUAL from land areas might not be what is wanted. At least it has significant impact as there are __21 pieces of screen samples to be revised to fix this change in **tests 2.1.1, 2.2.2, 2.2.4, 2.2.6, 2.2.8 and 3.7.1b**.__
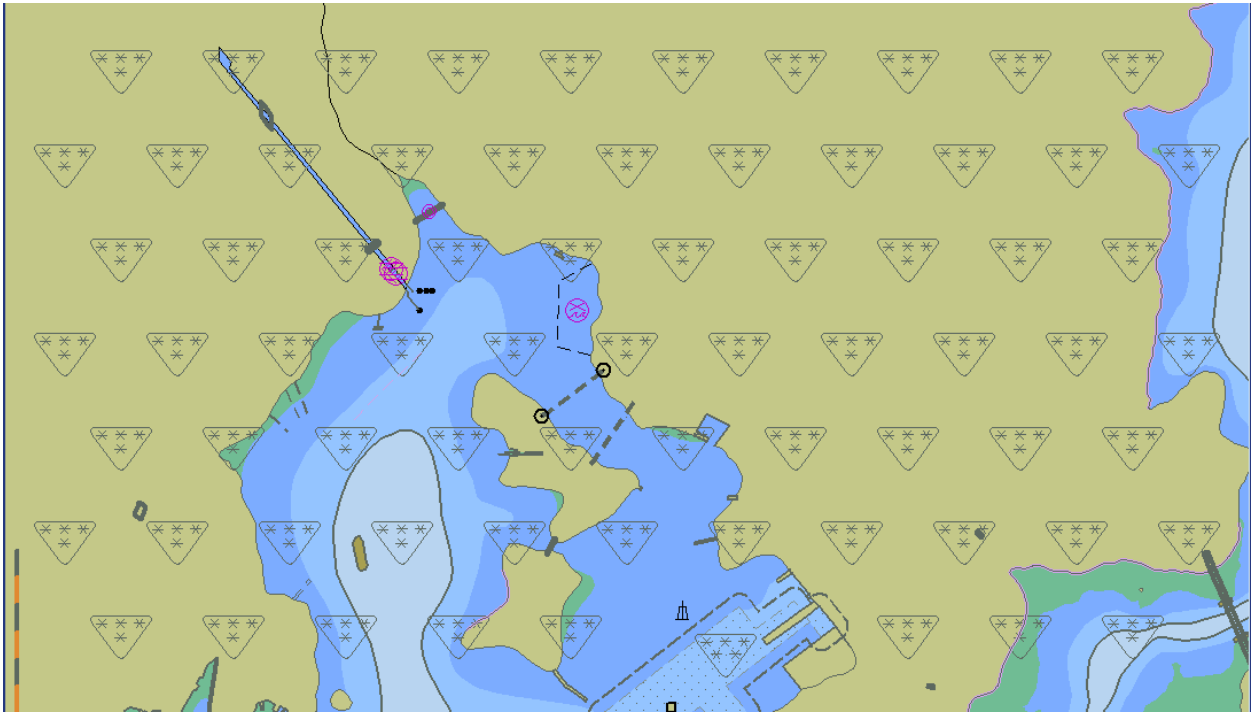
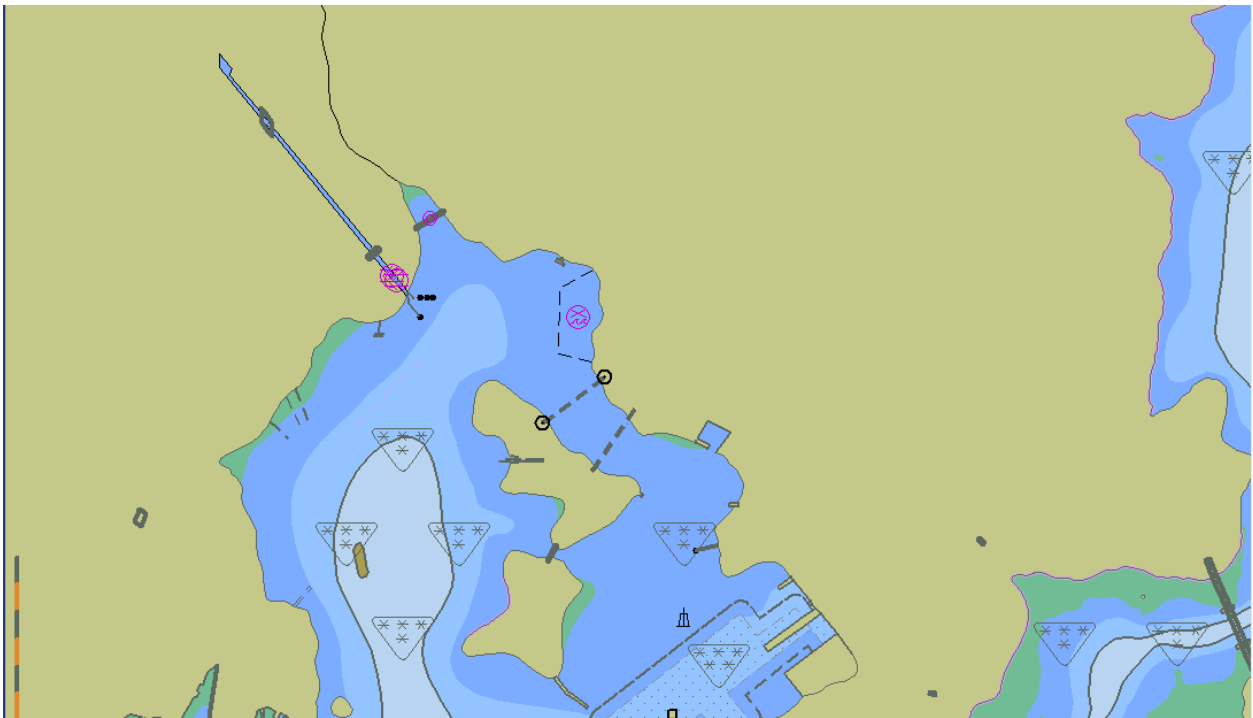Following pages contain screen samples which illustrate what has happened.

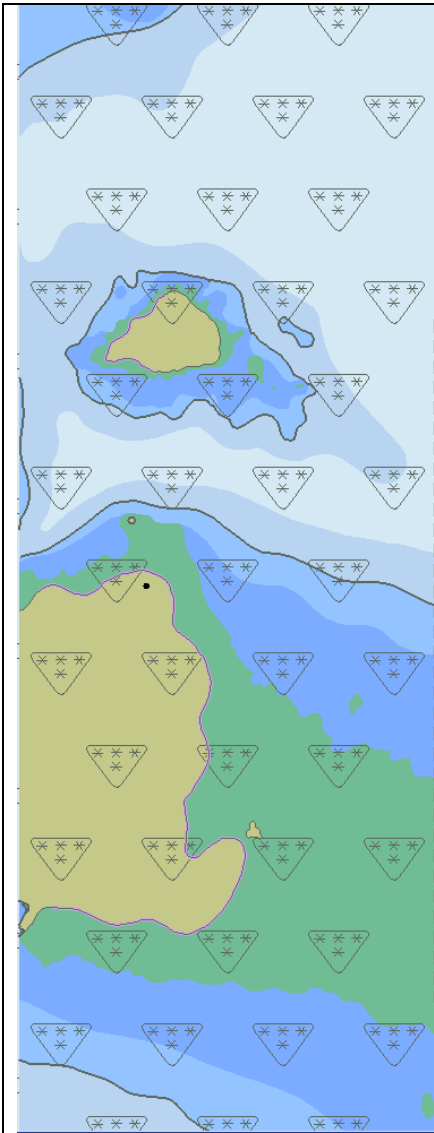GB4X0000, S-64 Ed **3.0.1** – M_QUAL/CATZOC available both over water and land

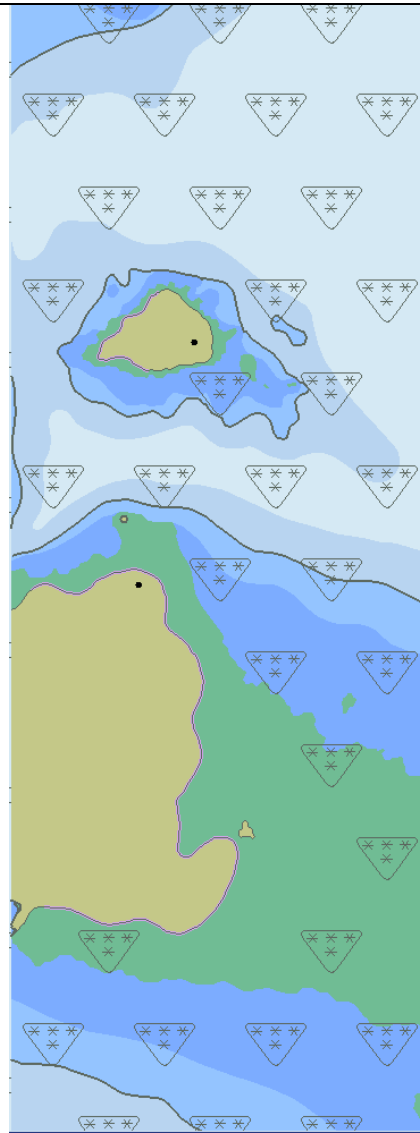GB4X0000, S-64 Ed **3.0.2** – M_QUAL/CATZOC available only over water

GB5X01NW, S-64 Ed **3.0.1** – M_QUAL/CATZOC available both over water and land

GB5X01NW, S-64 Ed **3.0.2** - – M_QUAL/CATZOC available only over water

GB5X01NE, S-64 Ed 3.0.1
M_QUAL/CATZOC available both over water and land

GB5X01NE, S-64 Ed 3.0.2
M_QUAL/CATZOC available only over water

5. **Edition number** of chart GB4X0000 has been changed <u>from 2 to 1</u>.   Result is that the **test 2.1.2** cannot be passed
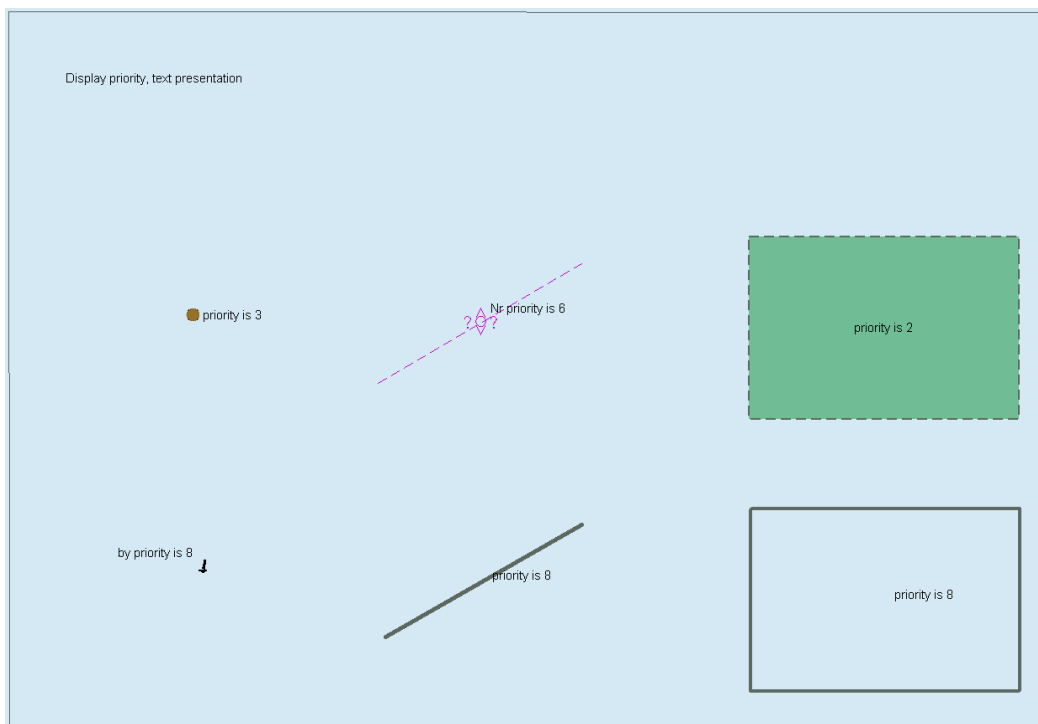
2.1.2 Number and date in chart library

Test Reference	2.1.2		IHO Reference	IEC 61174/ 4.4.1
Test description				
Loading of initial datasets and confirmation of information in chart library.				
Setup				
Load all cells from *2.1.1 Power Up\ENC_ROOT*				
Action				
Check that in the chart library the information about the cells is provided as follows				

ENC	Edition (EDTN)	Update number (UPDN)	Update Application Date (UADT)	Issue Date (ISDT)
GB4X0000.000	2	0	20010409	20010409
GB5X01NE.000	1	0	20010406	20010406
GB5X01NW.000	2	0	20010406	20010406
GB5X01SE.000	1	0	20010406	20010406
GB5X01SW.000	1	0	20010408	20010408
GB5X02SE.000	1	0	20010407	20010407

Results
The information in the chart library shall be identical to the above table.

6. Content of the chart 2J5X0001 has been changed so that the **test 3.6.5** cannot be passed
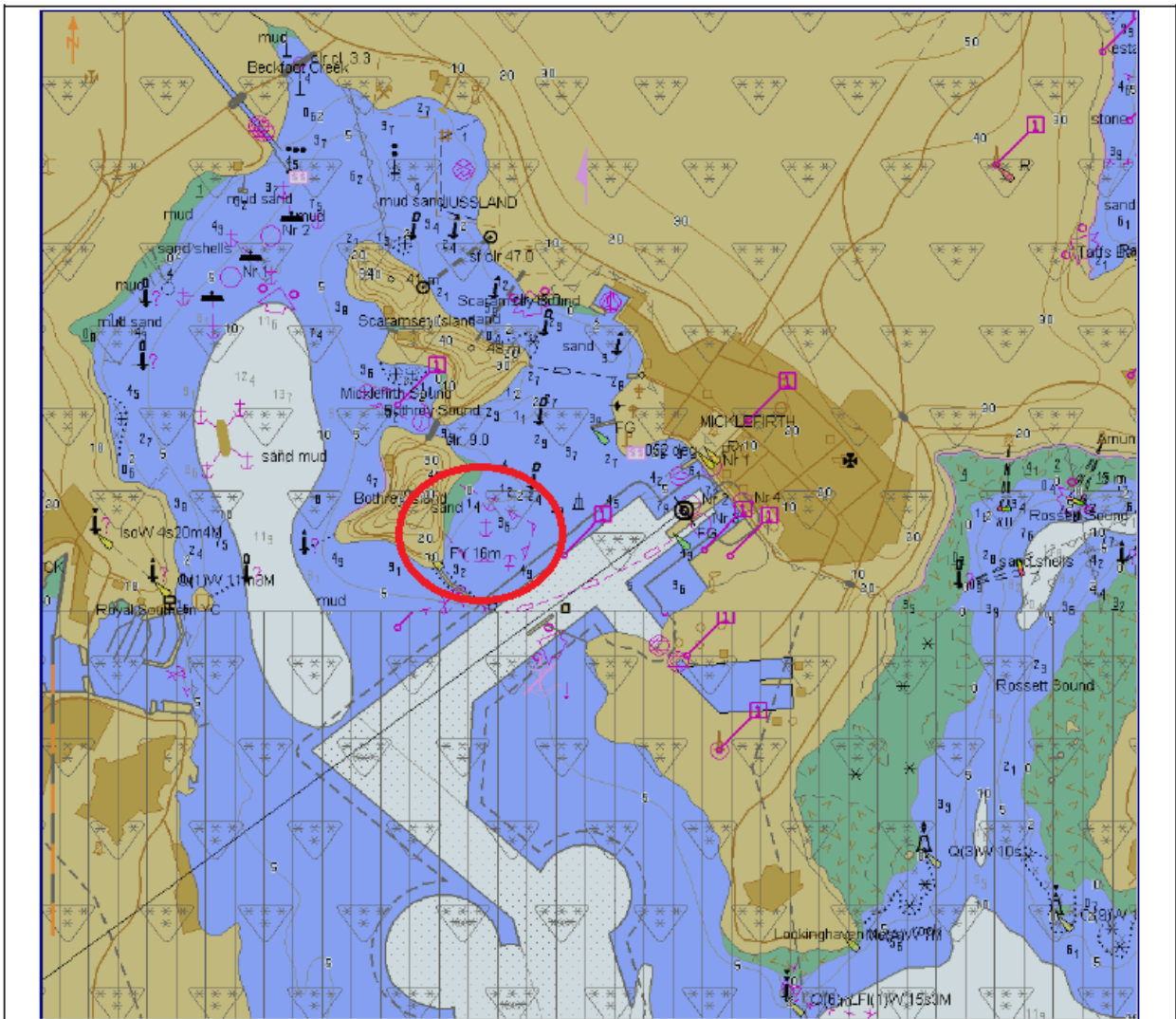
3.6.5 Text Display

Test Reference	3.6.5 a)	IHO Reference	S-52 10.3.4.1
Test description			
Text display			
Setup			
As for test 3.6.1			
Action			
View the objects at position 32°21.100'S 61°21.900'E scale 1:5 000			
Results			
Confirm that items 1 to 6 display as shown in the graphic below:			

Alternative 1: Manufacturer may implement display of text only once for a feature which is masked
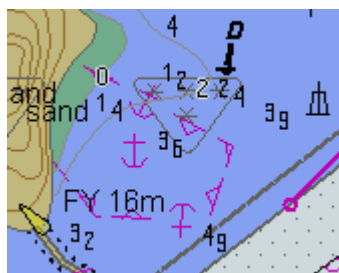
2J5X0001, S-64 Ed **3.0.1**

2J5X0001, S-64 Ed **3.0.2**

7. 3rd screen sample for test **2.1.1** has an **error for drawing of anchorage area**. This error has nothing to do with changes of chart content between ed 3.0.1 and 3.0.2.

After loading of GB5X01NW.000, displayed scale 1:20 000

3rd screen sample for test 2.1.1, area of drawing error inside the red circle
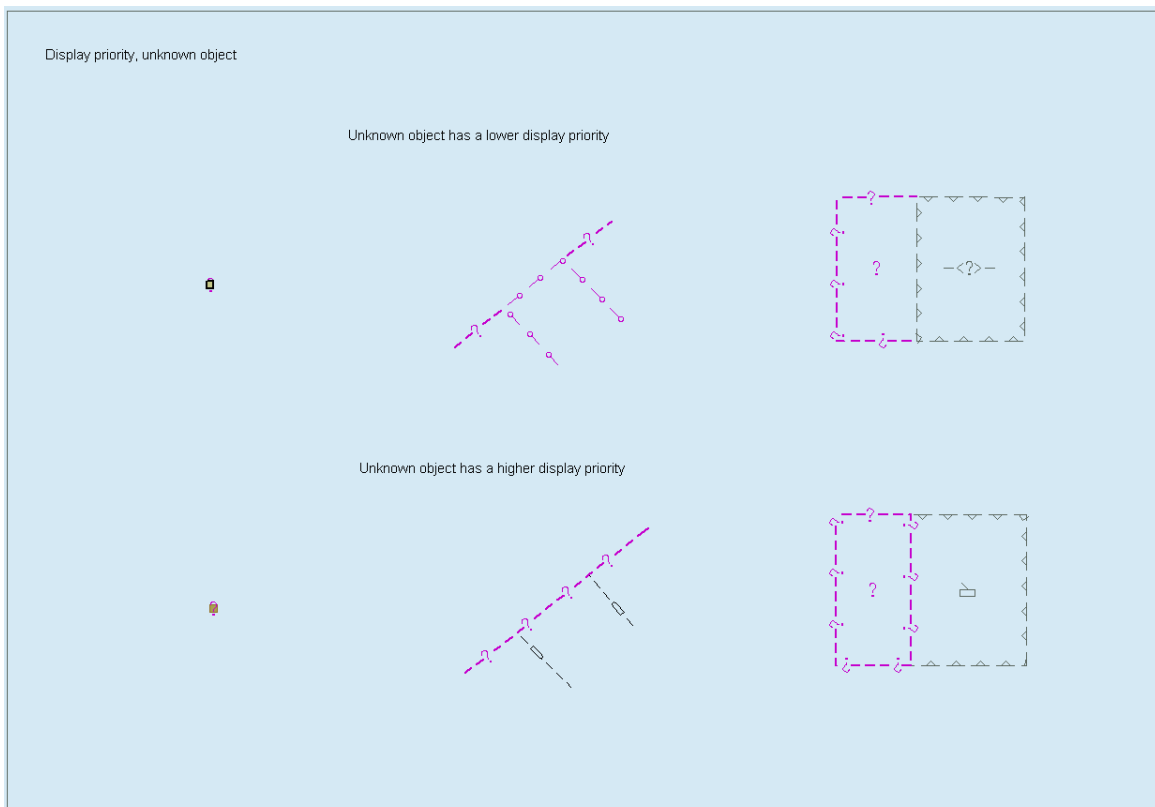

Error in presentation of anchorage area

Correct presentation

8. **Picture quality** of screen sample for **test 3.6.7** is **poor.** It is difficult to see what is correct line width for each feature in the test.

3.6.7 Display of unknown symbols

Test Reference	3.6.7	IHO Reference	S-52 10.3.4.1
Test description			
Display of unknown symbol			
Setup			
As for test 3.6.6			
Action			
View the objects at position 32°21.850'S 61°20.650'E scale 1:5 000			
Results			
Confirm that items 1-6 display as shown in the graphic below:			

As available today

Proposal for better picture quality – possible to see difference between 1 and 2 pixel wide lines

Conclusions

9. There is a need to do something.

Recommendations

10. Table of editions is simple to fix in test 2.1.1 **=>** to be fixed

11. Drawing error in 3ʳᵈ screen sample for test 2.1.1 **=>** clear mistake to be fixed by new screen sample

12. Picture quality in test 3.6.7. This has no clear mistake, but users of the S-64 would benefit from better picture quality **=>** consider to use a new screen sample

13. Biggest issue is what to do with changed CATZOC areas in charts GB4X0000m GB4X01NW and GB5X01NE. There are two alternatives. Either expand CATZOC to cover all land area as in previous editions of S-64 or create 21 new screen samples. **=>** obviously this should be fixed. Remaining is to decide which method to fix.

Justification and Impacts

14. Something shall be done

Action Required of ENCWG

The ENCWG is invited to:

    a)   consider publishing of new edition 3.0.3 of S-64

    b)   consider what to do with each recommendation