

## Paper for Consideration by ENC Working Group

## Presentation of Non official data boundary line

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<b>Executive Summary:</b>	To clarify drawing priority and S-64 test dataset, item 3.6.8 –display of boundary between official and unofficial data.
<b>Related Documents:</b>	S-52 Presentation Library and S-64 test dataset
<b>Related Projects:</b>	Review and maintenance of S-52 Pres Lib and S-64

## Introduction / Background

1. S-52 Presentation Library clause 10.3.4.1 provides definition of display priority. The display priority must be used to ensure that objects that overlap each other are drawn in the right sequence. Thus, an object with a higher priority must be drawn after (on top of) an object with a lower display priority.

Clause 10.1.7 specifies a rule for distinguishing non-official non-HO data from official ENC. If non-HO data is shown on the ECDIS display, its boundary must be identified by the linestyle LC(NONHODAT). The display priority is 3; over radar; display base; viewing group 11060. Note that the LC(NONHODAT) is a “one-sided” line and the boundary of the non-HO data must be drawn according to S-57 rules to ensure that the diagonal stroke of the line is on the non-HO data side of the line.

2. S-64 test 3.6.8 is intended for testing implementation of display priority and provides example of non-HO data boundary display.

The test requires to load unofficial cell *2J5X0002.000* that contains non HO data: area objects LNDARE, BUSGL (building single, area) and BUAARE (built up area).

As result of the test ECDIS should display unofficial boundary line overlaid by the BUISGL area and shown on top of BUAARE area object.



The non-HO boundary line is overlaid by the BUISGL area because of IHO S-52 Presentation Library drawing priority for BUISGL is equal to 4 while non-HO boundary line priority is set to 3

## Analysis/Discussion

The non-HO boundary (NONHODAT line) is overlapped by built-up area drawn at non-official cell. This could happen if the Pres Lib drawing priorities are applied to both official and non-official data objects; in this case unofficial built-up area overlaps non-HO data boundary. This seems to be illogical since it could lead to a case when boundary between official and non-official data is not shown at all (if non-HO cell is bounded with an object of higher drawing priority). From our point of view NONHODAT line should have priority over all unofficial data and should always be shown on top of unofficial data.

It is expected that IHO S-52 presentation library, including drawing priority is applicable to the official HO data only. The only requirement applied to unofficial data is the non HO boundary. On base of this, it is interpreted in such a way that non-HO boundary should always be on top of non-HO data.

If ECDIS applies IHO drawing priority to non-HO data, it will cause a risk of non-HO data boundary will be overlaid by any non-HO object with drawing priority higher than 3.

### **Recommendations**

1. Correct screenshot at S-64, test 3.6.8.1. Non-HO data boundary LC(NONHODAT) should overlay both building single and build up area.
2. Correct test cell 2J5X0002.000 – remove text string “area overlays non ENC line” or replace it with “Area is overlaid by non-ENC line”.h
3. Add clarification to S-52 Presentation Library, explaining that IHO drawing priority is applicable to HO data only

### **Action Required of ENC WG**

The ENC WG is invited to:

- a. Discuss the proposed changes.
- b. Agree to the proposed correction to S-64 and clarification to S-52 Presentation Library
- c. Propose wording for explanatory notes to Presentation Library.