S-101PT – Overscale in ECDIS

S-101PT11 September 2023

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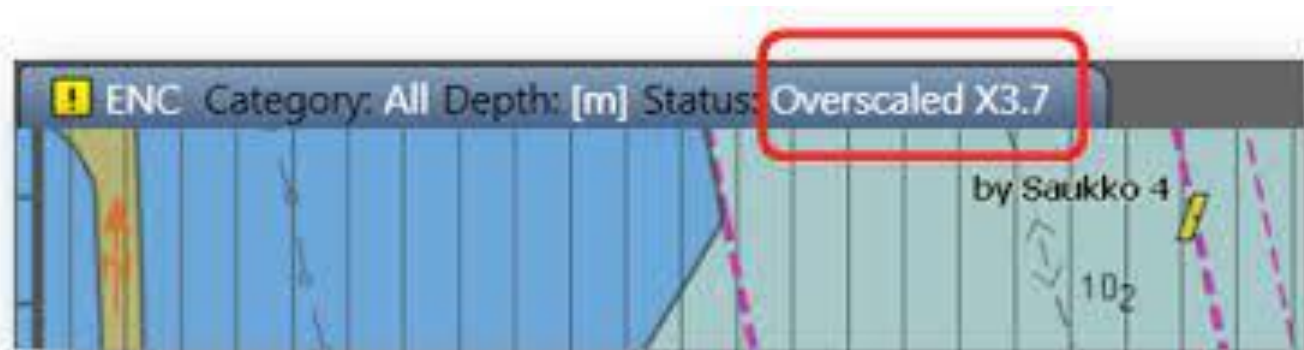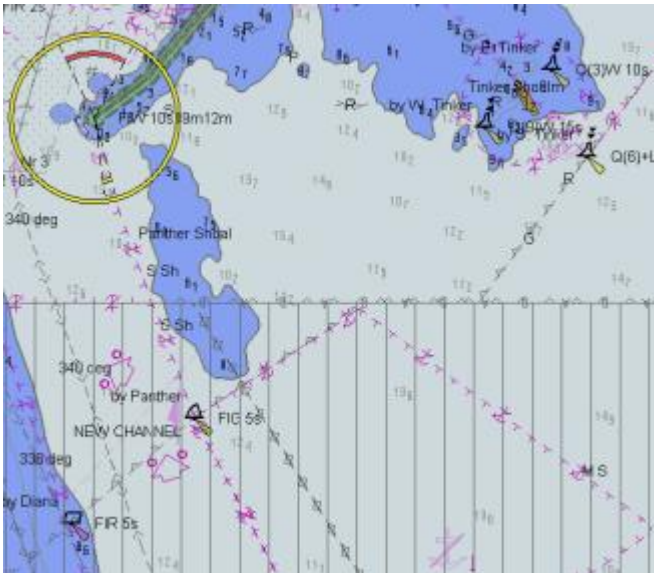
- The AHO is of the opinion that the current S-98 wording is hard to read and it does not properly describe/cover a number of scenarios, particularly when several Data Coverages both, as unique datasets or parts of a dataset, intervene in the formation of the ECDIS display.

- We believe that several S-98 references to Datasets should be amended to Data Coverages.

- Also, it is not clear if Overscale Indication and Pattern should be displayed in Route Monitoring mode only or in Route Planning as well.

- Concerns about the practical benefits of 'Scale Boundary'. Is it useful to the mariner? What are the use cases?

- Existing S-64 tests are insufficient to ensure Overscale implementation is standardised.

- A detailed and commented version of the current S-98 content and its differences with S-52 is included at the end of Paper S101PT11-08.7.

- Review Overscale guidance in S-98 and ensure all 'key governing principles' affecting Overscale in ECDIS are listed and agreed by the S101PT.

- As a result:

  ❑ Update S-98 Annex C (12.1.2 to 12.1.4) and S101 PS.

  ❑ Develop additional S-164 tests to cover some key missing scenarios.

- Include an Oversale section in the recently approved 'S101 Guidance Document' approved by the ENCWG. Prioritise graphics and screenshots over lengthy wording.

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A. Route Monitoring:

- A section of an ECDIS display is considered Overscaled when the corresponding Data Coverage/s forming the screen image, at that location, are displayed at a MSVS that is larger than their maxDS.

- The position of the ship drives the calculation of the Overscale Indication factor.

- Overscale Indication is to be shown when MSVS > maxDS.

- Overscale Indication is calculated as follows: maxDS /MSVS and expressed as a factor in the following format: xn.d (i.e. x1.7).

- If a Data Coverage, different to the one the ship is navigating on, is displayed Overscaled, the Overscale Indication must not be shown (unless a 'mouse hover' function is implemented by OEM).

- The Data Coverage containing the position of the ship must never be covered by the Overscale Pattern.

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- Overscale Pattern is to be shown on any Data Coverage feature forming the ECDIS display whenever their MSVS =< 2x MSVS (see exception above).

- The boundary between Data Coverages having a jump in scale of more than 3 maxDS steps (the 'steps' are taken from S-101 PS Table 3.1) must be depicted using the "Scale boundary' line symbology.

- When the boundary between Data Coverage is also the boundary between datasets, linestyle SCLBDY51 is to be used instead.

- When scale boundaries of smaller scale Data Coverage areas overlap larger scale Data Coverage areas, that portion of the scale boundary which intersects the larger scale Data Coverage area must not be visible.

A. *Route Planning:*

Behave as per Route Monitoring using the centre of the ECDIS display window as if it was the position (Lat/Long) of the ship.

We ask the S101PT to:

- Recognise the importance of having <u>clear guidance</u> in S-98 & S-164 on how key Data Coverage attributes (**scaleMinimum** and **scaleMaximum**) impact in the performance of Overscale in ECDIS.

- Recognise that this is a unique opportunity to ensure ECDIS Overscale performance is reviewed and documented in a way that is easier to understand and implement by OEMs (including the use of more graphics).

- Support our proposal to review, clarify and simplify when possible ECDIS Overscale requirements documented in S-98 and S101 PS.

HOW ?

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1. S101PT to endorse the idea of standardising the behaviour of Overscale in ECDIS by clearly defining a list of key 'performance requirements' and use them to review S-98 and S-101 PS content.

2. Task the 'Scales' subWG with this review, preliminary approval, drafting of proposed changes and submission to S101PT Chair.

3. S101PT Chair to prepare a PT CL requesting PT endorsement of the change proposals submitted by the 'Scales' subWG **by the end of October 2023**.

4. Once endorsed by the PT, the S101 Chair to submit the 'S-98 Change proposal request' to the upcoming S-100WG meeting in November.

5. Task the 'Scales" subWG to draft an 'Overscale' section for the 'S101 Educational Guidance'.

6. Task the PsWG to review the existing S-64 test cases on Overscale issues and recommend new tests to the S-164sWG as required.

THANKS