Paper for consideration by S-100WG

Portrayal of S-100 based ECDIS Information

Submitted by: BSH

Executive Summary: Discussion of portrayal issues related to S-100 compliant products

Related Documents: S-1xx Product Specification S-1xx Product presentation

Introduction / Background

Each S-100 compliant product specification should provide a portrayal section in accordance with S-100 Edition 4 Part 11.

The latest S-98 draft is discussion display priorities in section 10. The standard is also discussing certain levels of interoperability. In the most advanced level following operations are proposed:

- Interleave Feature Layers;
- Suppress Feature Types;
- Suppress Feature Instances;
- Combine Thematic Attributes;
- Combine Associations;
- Combine Spatial Attributes; and
- Rendering.

In principle, we see two different use cases for S-100 compliant products:

- Navigational purpose; and
- Non-navigational purpose.

The provision of information in ECDIS is basis of the following discussion.

Analysis/Discussion

Although the provision of portrayal instructions is per se optional, the provision of portrayal instructions is necessary or at least strongly recommended if used in ECDIS systems.

The advent of S-100 compliant product specifications at a maturity level requiring the provision of portrayal put the IHO in a position to consider a harmonised approach to portrayal specification.

The approach currently used is that the portrayal register of the S-100 registry contains a collection of symbols. Each submitting organisation can provide symbols considered suitable.

A working group developing an S-100 compliant product specification either can create new symbols or can select existing symbols and reuse them.

The provision of S-100 compliant products in ECDIS requires investigations on:

- whether the symbols are designed in accordance with cartographic principles and if they are in accordance with the ECDIS colour modes;
- whether the symbols are not obscuring other chart elements if provided as an overlay;
- whether the symbols are harmonised with existing symbols; and
- whether the symbols are still appropriate in various S-98 levels.

Annex A provides an example of an S-122 (Marine Protected Area) dataset overlaying an ENC in the north part of the screen. This S-122 dataset provides a totally different symbol compared to the ENC's Restricted Area. The colour is not following cartographic principles. The symbol is difficult to understand.

From the producing agency's point of view, it is now necessary to start harmonising portrayal aspects of the various S-100 compliant products; especially if reflecting the different S-98 levels and their impact on portrayal.

Justification and Impacts

The appropriate provision of S-100 compliant products is the shopping window of the IHO. It reflects one of the IHO's core expertise.

Either S-100 or S-98 or both need minor adjustment to reflect portrayal harmonisation issues.

Action required of S100WG

The S100WG is invited to:

- a. note this paper,
- b. consider if portrayal harmonisation aspects need to be addressed in S-100 Ed. 5.
- c. consider if portrayal harmonisation aspects need to be addressed in S-98.

Annex: Example of an insufficient S-122 portrayal proposal

