

Paper for Consideration by S-101 PT9

Pilotage Feature Symbology in S-101

Submitted by:	S-101PT Chair
Executive Summary:	This paper raises two items for discussion by the S-101PT both relating to the symbology of Pilotage information in S-101.
Related Documents:	S-101 Edition 1.1.0
Related Projects:	S-100

Item 1 Pilotage District

1. S-101 has added new features to the ENC data model; Pilotage District is one example. The S-101PT Portrayal Sub-Group has discussed this in Github under issue 57 which has now been closed. This discussion reused the existing PILBOP02 symbol which is used for pilot boarding places but has reduced its size by using a scaling of 0.8.

[Pilotage district · Issue #57 · S-101-Portrayal-subWG/Working-Documents \(github.com\)](#)

[Implement symbology for Pilotage District \(row 20 main\) · Issue #94 · iho-ohi/S-101 Portrayal-Catalogue \(github.com\)](#)



Figure 1 – Pilotage district line style

2. S-4 B-491.1 (figure 2) describes how to show pilot boarding places on paper charts; this includes the option of using the symbol as a line style to define a larger pilot boarding place as an area. In S-52 this option is not used, and it is assumed that this is based on a desire to minimise display clutter. Given the symbology now agreed for Pilotage district it seems that users could still potentially confuse pilotage district features for pilot boarding places of type area. Scaling the symbol by 0.8 does little to distinguish this for the user. Even though the district feature uses the PILBOP02 symbol in the line style and the area boarding place does not users may not make this connection. This may not be an issue but given the similarity between these symbols it seems that testing should confirm that the different symbols are sufficiently different for users to distinguish them.

B-491.1 The position of a pilot boarding place or pilot cruising vessel must be shown by the magenta symbol:



The symbol should be shown on coastal navigation charts (see B-126), with the additional details below shown on port approach and harbour charts.

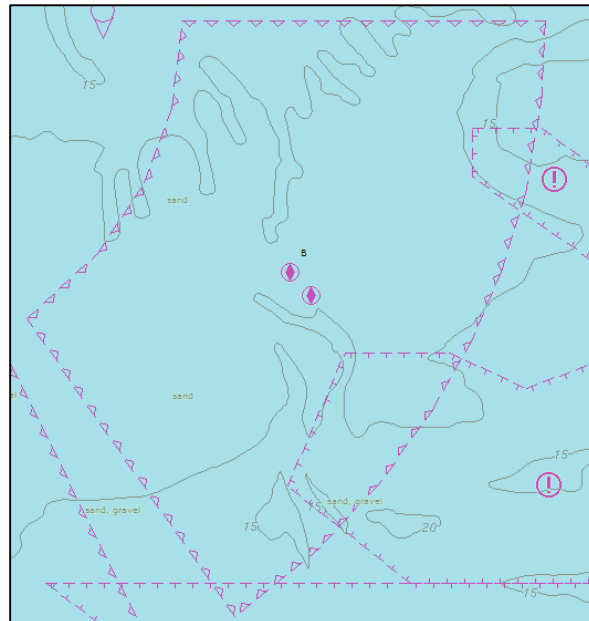
Where an area is specified, rather than an exact position, the symbol may be shown, as appropriate:

- centred within a magenta maritime limit in general (N1.2)
- for a large area, the symbol may be placed, north up, between dashes at intervals of approximately 40mm or closer and not exceeding 50mm along the limit
- within a waiting (holding) or an anchorage area, see B-431.3 and B-431.9.

Figure 2 – extract from S-4 B491.1

Item 2 Pilot Boarding places as an area (surface geometry)

3. The UK has submitted a paper to NCWG8 (this meeting immediately precedes the S-101PT9 meeting) noting user feedback received in cases where area pilot boarding places have been encoded. Users have reported that in ECDIS the point centred symbol appears to move and as it is identical to the point symbol this can cause confusion. This is a more significant issue when the areas are large.



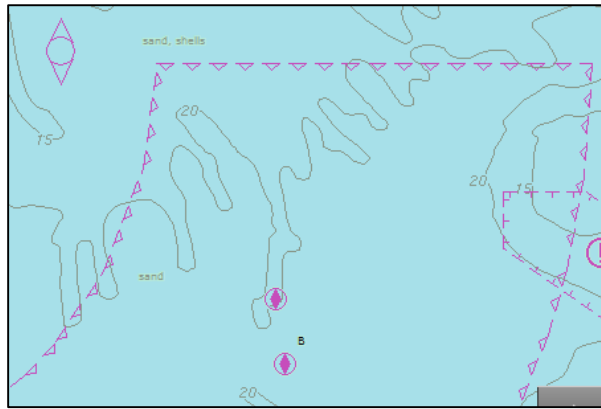


Figure 3 – Pilot boarding place as an area shown as per S-52 with symbolised boundaries. In this case a point pilot boarding place also exists within the area object; this specific instance can be distinguished by the name B. The second image shows how the point centred symbol has moved from south east of the point symbol to the north of it.

4. For S-57 ENC's a change to S-52 for this issue would be very difficult as it would require a new version of the S-52 Presentation Library. In S-101 it would be much easier at this stage to change the symbol. Options include;
 - a) For areas the point centred symbol could be modified so that it is enclosed by a magenta polygon. See figure 4.

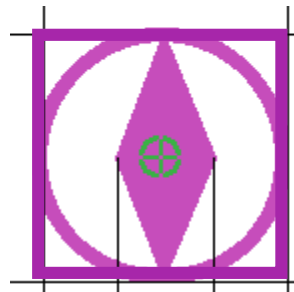


Figure 4 – Mock up image of modification to PILBOP02

- b) The existing point symbol could be applied to the limits of the area as a complex line style and the centred symbol removed. This would be very similar to the new symbology for pilotage district and for large areas it may not effectively convey to the user the information if they are zoomed in.
- c) Differentiate the centred symbol from the point symbol by varying the colour, as has been used for other area/symbol combinations. For example, keep the existing point symbol as the “darker” magenta colour (CHMGD) and varying the centred symbol to be a “lighter” magenta colour (such as CHMGF).

Option a) seems a more attractive option. S-101 PT is invited to discuss the two recommendations below, one of which is to task the Portrayal Sub Group to consider item 2.

Recommendations

- A. S-101PT develop a short guideline for testing of S-101 1.1.0 and include within it the need to validate new symbology especially where it uses elements of existing symbology.
- B. S-101PT Portrayal Sub-Group to develop a modified symbology for pilot boarding places of geometry surface noting the ideas at paragraph 4. of this paper.