

Paper for Consideration by DIPWG

Paper Chart Symbol Changes Considered by the CSPCWG

<i>Submitted by:</i>	DIPWG Chair
<i>Executive Summary:</i>	This paper highlights some symbology changes that were approved or are under consideration by the CSPCWG.
<i>Related Documents:</i>	INT1
<i>Related Projects:</i>	IHO CSPCWG and CSPCWG INT1 Sub-working Group

Introduction / Background

The information provided below was gleaned through a review of CSPCWG Letters issued to its members over the past two years, as well as the minutes from the CSPCWG5 (Nov 2008) and CSPCWG6 (Dec 2009) meetings.

Analysis/Discussion

The items listed below show the item number from the referenced meeting minutes, followed by the symbol or topic title, and a brief description of the item as it appears in the meeting minutes.

Relevant S-57 objects, attribute codes, other information and associated S-52 symbology is provided by the author of this paper within blue boxes.

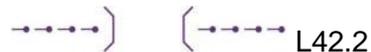
**Items extracted from the minutes of the 5th CSPCWG Meeting
Sydney, Australia 18-20 November 2008**

8.3. Pipelines in tunnels

PIPSOL, "Pipeline, submarine/on land," no S-57 attributes available to indicate tunnel



If required to be shown, the entrance to a pipeline tunnel must be charted by a magenta symbol (black symbol in the case of an outfall in a tunnel):



The pipeline inside the tunnel should not be charted. This symbol helps to distinguish partly lifted pipelines (or cables, see B-443.8) from those which are in use, but partly in a tunnel.

8.5. Offshore renewable energy installations

No analogous S-57 Object for wave energy is available, although OSPARE, "Offshore Production Area, where CATPRA=9, "wind farm," does exist, as does LNDMRK, "Landmark" where CATLMK=18, "windmill" and 19, "wind motor."



The meeting considered that it would be useful to have a generic symbol available for indicating renewable energy installation, particularly to cover floating (wave) installations.

Symbol N1.1 (black maritime limit implying permanent physical obstructions) should normally be used for the limit of a wave farm:



However, if navigation is prohibited, N2.2 must be used:

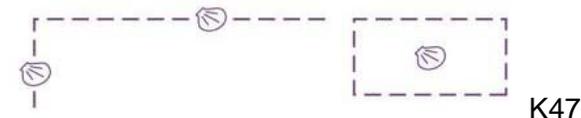


8.11. New symbol for shellfish beds

MARCUL, "Marine farm/culture," where "CATMFA=2, "oysters/mussels" or 5, "pearl culture farm." Thus, S-57 encoding could support use of an S-52 symbol analogous to this new INT1 symbol if one is desired.



Shellfish beds that do not contain physical obstructions. The limits should be charted by a dashed magenta line (N1.2) with an oblique shell symbol (width approximately 3mm) at intervals of approximately 40mm. For small areas, a centred oblique shell symbol may be inserted within the area defined by the dashed magenta line N1.2. A note may be inserted warning against anchoring or grounding in the area, or giving details of any local regulations.



9.2. Symbol library

Suggestion is made here that in the future CSPCWG would consider proposing that paper chart symbols could be included in an S-100 portrayal register.

The meeting agreed that in view of the split vote on the use of M-4 as a symbol library, and that there is little impact for chart users, that option 4 (the status quo) would be retained. For future

consideration, paper chart symbols could be included in an S-100 portrayal register, but not to be progressed before the revision of M-4 is completed.

**Items extracted from the minutes of 6th CSPCWG Meeting
Monaco, 1-3 December 2009**

8.3. AIS and Virtual AIS [To be discussed at TSMAD20/DIPIW2 as Agenda Item 20.2.

8.6. Small craft (leisure) symbols (UK)

[SMCFAC, "Small Craft Facility," where CATSCF=1, "visitor's berth or 2, "nautical club, or 24, "caravan site," or 25, "camping site]. This action proposes eliminating Section U from INT1 and moving the various small craft symbols to other parts of the document. S-57 encoding could support use of separate camping or caravan sites, visitor berths, etc., although these INT1 symbols have existed for a while with no apparent call for a similar S-52 symbols. Should get clarification on which symbols CSCPWG is considering a color change for.



Docs: CSCPWG6-08.6A Small Craft (Leisure) Symbols

The meeting decided that the following "leisure" symbols should be transferred to INT1 section F: U1.1 (Boat Harbour, Marina); U1.2 (Yacht berths without facilities); U2 (Visitors' berth); U3 (Visitor's mooring); U4 (Yacht club, Sailing Club). The symbols for Caravan and Camping sites should be included as black symbols in INT1 section E (as these may be useful as landmarks; the user would expect there to be seasonal variations and this need not be shown on the charts). All other entries in existing Section U should not be included as INT symbols; the retention of Section U and any symbols are a national option. It was also considered that the "Mariner facilities box" at U32 is redundant as difficult to maintain and up to date information is generally readily available to the user via internet websites. This finishes the review of small craft symbols at Work Plan item E.5.

ACTION 19: Secretary to draft amendment to S-4 for "leisure" symbols.

ACTION 20: INT1 subWG to decide the appropriate location and colour of retained "leisure" symbols in INT1.

8.9. Floating Wind turbines

OSPARE, "Offshore Production Area, where CATPRA=9, "wind farm." CSCPWG is proposing to differentiate between fixed and floating wind turbines by tilting the symbol for floating turbines by 15 degrees. S-57 attribution does not support making this distinction for OSPARE.



5.1	Vindmølle/vindgenerator, fast <i>Wind turbine, fixed</i>		445.8 445.9
	Vindmølle/vindgenerator, flytende <i>Wind turbine, floating</i>		
5.2	Vindmøllepark <i>Wind farm</i>		
	Vindmøllepark med restriksjoner <i>Wind farm with restricted area</i>		

Recommendations

1. Pipeline, submarine/on land – No action is recommended.
2. Offshore renewable energy installations – Members should consider whether a generic renewable energy or wave farm S-101 object and symbology is desired.
3. Marine farm/culture – Members should consider whether a separate shellfish bed S-101 symbol is desired.
4. Possible inclusion of INT1 symbols within an S-100 portrayal register – Members should consider the potential merits and disadvantages of including paper symbology in the portrayal register.
5. Small Craft Facilities – No action is recommended.
6. Floating Wind turbines – No action is recommended

Action Required of DIPWG

The DIPWG is invited to:

Consider the information provided in this paper and report any need for designing additional symbology or objects/attributes for S-101.