



# 10<sup>th</sup> Meeting of the Nautical Cartography Working Group

**Proposal by US NOAA**

**New Symbols for S-101 Anchorage Areas**

**Agenda Item 6.9**

NCWG10 ~ Monaco ~ 12-15 November 2025



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## PRINCIPAL ACTIVITIES AND ACHIEVEMENTS

International  
Hydrographic  
Organization

1. Evaluated S-101 DCEG *category of anchorage*, *category of cargo*, and *status* attribute values for unique anchorage encodings that could be portrayed using augmented symbology.
2. Analyzed existing specifications: S-4, S-52, S-101 Portrayal Catalogue, S-65 Annex B, and INT1 to determine the appropriate symbol modifiers for the augmented portrayal.
3. Designed draft anchorage area SVG symbols (for point features and centred symbols for area features) for S-101 Portrayal.



# PROPOSED NEW SYMBOLS (ANNEX A)

Table 4. Proposed augmented symbols for various types of anchorage areas

Note	S-101 Encoding	INT1	S-4 Section	INT1	Proposed S-101 Centred Symbol	Symbol Sources
1,7	anchorage area category of anchorage = 1 unrestricted anchorage	N12.1 Anchorage area in general	B-431.3			ACHARE51 Anchorage area
1,4	anchorage area category of anchorage = 2 deep water anchorage	N12.4 Deep water anchorage area, Anchorage area for deep draft vessels	B-431.3			ACHARE51 + DWRPT51 Part of deep water route
1,4	anchorage area category of anchorage = 3 tanker anchorage	N12.5 Tanker anchorage area	B-431.3			ACHARE51 + text
1	anchorage area category of anchorage = 5 quarantine anchorage	N12.8 Quarantine anchorage area	B-431.3			ACHARE51 + INT1 N12.8 Quarantine anchorage area
2	anchorage area <b>[POINT]</b> category of anchorage = 6 seaplane anchorage	N14 Anchorage for seaplanes	B-449.6			ACHARE02 + INT1 N14 Anchorage for seaplanes
2	anchorage area category of anchorage = 6 seaplane anchorage	N13 Seaplane operating area	B-449.6			ACHARE51 + INT1 N13 Seaplane operating area
3	anchorage area category of anchorage = 7 small craft anchorage	F11.1 Boat harbour, Marina				ACHARE51 + SMCFAC02 Yacht harbour, marina
4	anchorage area category of anchorage = 9 anchorage for periods up to 24 Hours	N12.6 Anchorage area for periods up to 24 hours				ACHARE51 + text



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# PROPOSED NEW SYMBOLS (ANNEX A)

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5	anchorage area category of anchorage = 10 anchorage for a limited period of time	None	None	None		ACHARE51 + clock
5	anchorage area category of anchorage = 14 waiting anchorage	None	None	None		ACHARE51 + clock
7	anchorage area <b>[POINT]</b> category of anchorage = 15 reported anchorage	N10 Reported anchorage (no defined limits)	B-431.1			ACHARE03 Reported Anchorage
7	anchorage area <b>[POINT]</b> category of anchorage = 1 unrestricted anchorage	N10 Reported anchorage (no defined limits)	B-431.1			ACHARE02 Anchorage area as a point at small scale
1	anchorage area category of cargo = 7 dangerous or hazardous	N12.7 Dangerous cargo anchorage area	B-431.3			ACHARE51 + BRTHDNG2 Dangerous or Hazardous Cargo
1,4,	anchorage area status = 6 reserved	N12.9 Reserved anchorage area	B-431.3			ACHARE51 + text
6	anchorage area category of anchorage = unrestricted anchorage name <> NULL	N12.2 Numbered anchorage area	B-431.3			ACHARE51 + name
6	anchorage area category of anchorage = unrestricted anchorage name <> NULL	N12.3 Named anchorage area	B-431.3			ACHARE51 + name

Notes:


1. Based on existing S-4 INT1 symbol for the same feature.
2. Based on an existing S-4 INT symbol for a related feature (seaplane operating area > sea plane anchorage area).
3. Based on an existing S-4 INT symbol for a related feature (marina > small craft anchorage area).
4. Text based symbols
5. New graphic "clock" symbol
6. Placement of object name attribute label could be used to replicate the INT1 symbol
7. These S-101 symbols already exist. They are included here for the sake of completeness.



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## PROBLEMS OR OUTSTANDING ISSUES

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1. A hierarchy of precedence must be developed for symbols that do not depend on the *category of cargo* attribute value.
  - If an anchorage with a *category if cargo = 7: dangerous or hazardous*, would it make sense that the  would always be used regardless of other attribution?



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## PROBLEMS OR OUTSTANDING ISSUES

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1. A hierarchy of precedence must be developed for symbols that do not depend on the *category of cargo* attribute value.
  - A determination needs to be made as to when the reserved <sup>RESERVED</sup> symbol should be used, if the anchorage *status* = 6: *reserved*. Given the other types of anchorage areas, when, if ever, should the reserved label be used instead of the other secondary symbols?

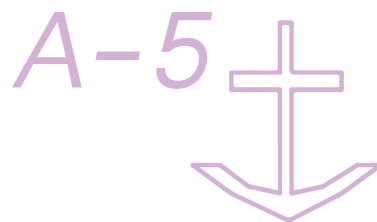


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## PROBLEMS OR OUTSTANDING ISSUES

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1. A hierarchy of precedence must be developed for symbols that do not depend on the *category of cargo* attribute value.
  - A determination needs to be made as to when, if ever, an anchorage's name or number should be displayed instead of one of the secondary symbols. Would display of the label only be acceptable if *category of anchorage = unrestricted anchorage?*





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# **FUTURE WORK PROGRAMME**

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1. If this proposal is accepted, the draft SVG symbols would require conversion to standard S-101 SVG format and included in the S-101 Portrayal Catalogue.





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# ACTIONS REQUESTED FROM HSSC

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- a. To note the paper and follow the recommendations noted above, which include,
- b. considering the proposed augmented symbols for portraying S-101 anchorage areas, and anchorage berths shown in Table 4. and make a recommendation to the S-101 Portrayal Sub-Working Group to implement these or modified versions of these symbols,
- c. considering the addition of a clock symbol component in S-4 to portray areas for anchorage “for a limited period of time,” other than 24 hours, and for “waiting anchorages” on paper charts.