

Paper for Consideration by S-101PT

Proposal for a new feature “Small Craft Mooring Area”

Submitted by:	France
Executive Summary:	Proposal to add a new Feature “Small Craft Mooring Area” in S-101 Edition 1.2.0.
Related Documents:	S-101FC, S-101DCEG.
Related Projects:	S-101.

Introduction / Background

1. In S-101 Edition 1.1.0, to encode an area where small craft can moor to pre-installed devices, the feature **Anchorage Area** must be used, with attribute **category of anchorage** populated with the value 8 (small craft mooring area). This encoding, which is inherited from S-57 UOC, is not fully satisfying as it mixes anchoring and mooring, which are two different concepts.
2. This paper proposes to create a new feature **Small Craft Mooring Area** in S-101 Edition 1.2.0, to improve the data model.

Analysis/Discussion

3. Among the 12 allowable values for **category of anchorage**, 11 relate to proper anchorage, whereas value 8 is the only one that relates to mooring.
4. In France, and probably in other countries, special areas have been created, generally close to the marinas, for the mooring of small craft. The reasons for the creation of such areas were to organise the areas where small craft could stop, and to preserve the seabed by avoiding anarchic anchoring. There are currently more than 300 such areas along French metropolitan coast.
5. Specific regulations apply in these areas, the main one being that anchorage is prohibited, as mariners must moor their vessels to the buoys that are specifically set up by the local authority. Other specific restrictions include speed restriction, stopping prohibited, limitations to vessels of a certain length, etc.

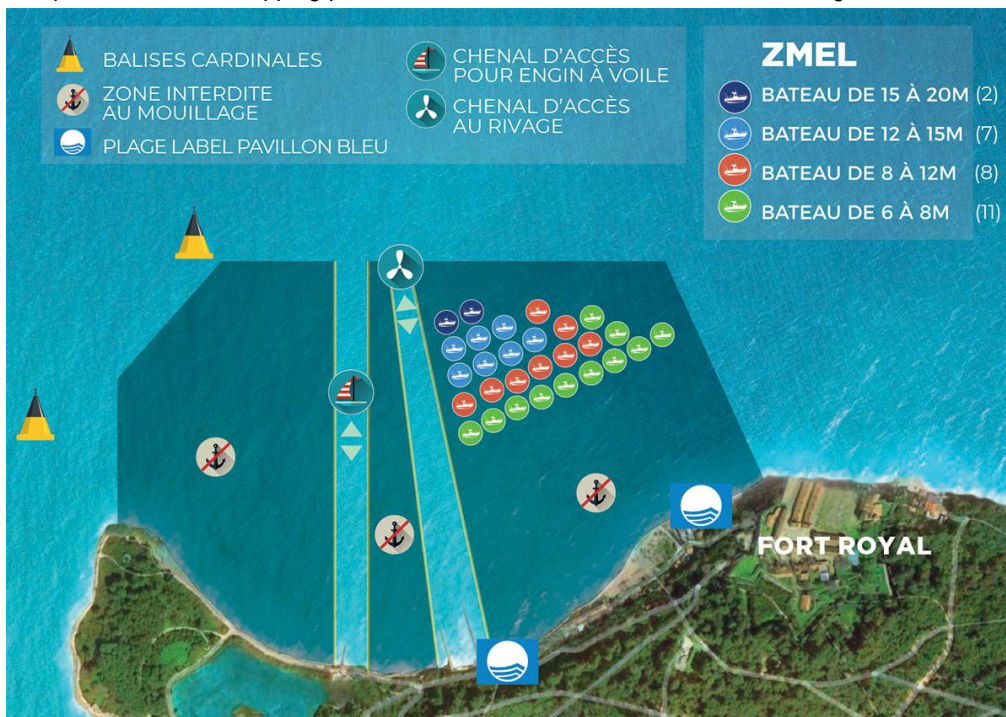


Figure 1: Small craft mooring area plan



Figure 2: Example of a mooring area

6. The current allowable values for attribute **restriction** for the feature **Anchorage Area** logically exclude value 1 (anchoring prohibited). Yet, the consequence is that it makes it impossible to properly encode the regulation that relates to the mooring areas described above.
7. To solve this issue, it is proposed to create a new feature **Small Craft Mooring Area** in S-101, Edition 1.2.0. An alternative could be to create a feature Mooring Area, with an attribute **category of mooring area**, but at this stage, examples of such areas for other vessels than small craft haven't been found. This probably needs being discussed with the Project Team Members.
8. The proposal is in line with paper S101PT6-13 (Portrayal of Small Craft Mooring Areas) that ended with a new portrayal for **Achorage Area** features with **category of anchorage** = 8 (refer to <https://github.com/S-101-Portrayal-subWG/Working-Documents/issues/28>)
9. To align the documentation with this proposal, the DCEG 16.3.1 (Anchorage) should be reviewed to delete reference to value 8 for **category of anchorage** and a new item inserted as follows:

16.4 Mooring area

IHO Definition: SMALL CRAFT MOORING AREA. An area in which vessels may be secured to mooring buoys (adapted from IHO dictionary – S-32).

S-101 Geo Feature: Small Craft Mooring Area (ACHARE)

Primitives: Surface

Real World

Paper Chart Symbol

ECDIS Symbol

S-101 Attribute	S-57 Acronym	Allowable Encoding Value	Type	Multiplicity
feature name			C	0,*
display name			(S) BO	0,1
language		ISO 639-2/T	(S) TE	0,1

name	(OBJNAM) (NOBJNM)		(S) TE	1,1
fixed date range		See clause 2.4.8	C	0,1
date end	(DATEND)		(S) TD	0,1 †
date start	(DATSTA)		(S) TD	0,1 †
periodic date range		See clause 2.4.8	C	0,*
date end	(PEREND)		(S) TD	1,1
date start	(PERSTA)		(S) TD	1,1
restriction	(RESTRN)	1 : anchoring prohibited 2 : anchoring restricted 3 : fishing prohibited 4 : fishing restricted 5 : trawling prohibited 6 : trawling restricted 8 : entry restricted 9 : dredging prohibited 10 : dredging restricted 11 : diving prohibited 12 : diving restricted 13 : no wake 15 : construction prohibited 16 : discharging prohibited 17 : discharging restricted 18 : industrial or mineral exploration/development prohibited 19 : industrial or mineral exploration/development restricted 20 : drilling prohibited 21 : drilling restricted 23 : cargo transhipment (lightening) prohibited 24 : dragging prohibited 25 : stopping prohibited 27 : speed restricted 39 : swimming prohibited	EN	0,*
status	(STATUS)	1 : permanent 2 : occasional 3 : recommended 5 : periodic/intermittent 6 : reserved 7 : temporary 8 : private 9 : mandatory 14 : public	EN	0,*
scale minimum	(SCAMIN)	See clause 2.5.9	IN	0,1
information		See clause 2.4.6	C	0,*
file locator			(S) TE	0,1
file reference	(TXTDSC) (NXTDSC)		(S) TE	0,1 †
headline			(S) TE	0,1
language		ISO 639-2/T	(S) TE	0,1
text	(INFORM) (NINFOM)		(S) TE	0,1 †

† For each instance of **fixed date range**, at least one of the sub-attributes **date end** or **date start** must be

populated.

For each instance of **information**, at least one of the sub-attributes **file reference** or **text** must be populated.

INT 1 Reference: Q 44

Mooring area (see S-4 – B-431.7)

Where the limits of a mooring area are defined by a regulatory authority (for example harbour authority) they must be shown on the largest maximum display scale ENC data. They may also be shown on other maximum display scale ENC datasets where useful, for example, for planning purposes.

If it is required to encode a mooring area for small craft, it must be done using the feature **Small Craft Mooring Area**.

Remarks:

- The complex attribute **feature name**, sub-attribute **name** is used to encode the name and/or number of the **Small Craft Mooring Area**.
- The complex attribute **information** (see clause 2.4.6) may be used to provide additional information about the category of anchorage, where required.
- Areas with numerous small craft moorings may be encoded as **Anchorage Area** features of type surface, with **category of anchorage** = 8 (small craft mooring area). For the encoding of mooring buoys, see clause 8.14.

Distinction: Anchorage Area; Anchor Berth; Mooring/Warping Facility.

Conclusions

The current encoding for organized areas where vessels can moor is not fully satisfying. The creation of a new feature will get rid of the inconsistency between anchoring and mooring.

Recommendations

It is recommended to:

- Create a new geographic feature **Small Craft Mooring Area** in S-101, Edition 1.2.0;
- Modify the Feature Catalogue accordingly:
 - create a new Area Feature and
 - delete allowable attribute value 8 (small craft mooring area) for attribute **category of anchorage**;
- Align the IHO Registry;
- Modify the DCEG as here above;
- Review the Portrayal Catalogue to align with the new data model.

Action Required of S-101PT

The S-101PT is invited to:

- a) Discuss this paper and its recommendations;
- b) Take any further action if needed.