

TSMAD - INTERNAL EXTENSIONS LIST January 2002

Background

At the 4th TSMAD meeting held in Ostend, Belgium (15 – 17 June 1999) it was confirmed that, as originally agreed, proposals relating to objects, attributes and attribute values accepted at that meeting, and all future TSMAD meetings, will be incorporated into an Internal Extensions List which will only be distributed to TSMAD members. Prior to their incorporation into the next edition of the Standard, the list will be reviewed in order to ensure that they are still relevant and consistent.

S-57 Main

1. Digitally link all relevant sections of S-57 documents. (See TSMAD/8/9.3 No 9).

S-57 Main - Part 2 Theoretical Data Model

1. Time dimension to be added to the theoretical data models for S-57 Edition 4.0 (See TSMAD/8/9.3 No 3).

S-57 - Appendix A Chapter 1 – Object Classes

General

1. See also deferred items: INT references for the following need to be corrected.
Objects: ACHARE, BCNSPP, BUISGL, BOYSPP, CBLSUB, COALNE, DAMCON, FAIRWY, LNDMRK, MAGVAR, NAVLN, RAILWY, RECTRC, RESARE, SILTNK
Attributes: 2.16 - CATCBL, 2.54 - CATNAV, 2.89 - CATSIL, 2.178 - RESTRN, 2.227 - TRAFIC, 2.228 - VALACM, 2.231 - VALMAG, 2.236 - VERCLR, (TSMAD/7/7.7)
2. Review all existing definitions, and provide new definitions where none exist. (See TSMAD/8/9.3 No1)
3. Review and alter all INT1 references to Appendix B.1 Annex D references. (See TSMAD/8/9.3 No 2).
4. New time attributes to be added to relevant objects for S-57 edition 4.0. (See TSMAD/8/9.3 No 3)
5. Alter M-4 ref to include the Part number i.e. B-prefix. (See TSMAD/8/9.3 No 7).

Code ? – PINGOS

1. Add new Object class for PINGOS. (See S-57 Appendix A – Chapter 1. Page 1.117) (TSMAD/7/7.4)

Code 9 – BCNSPP Beacon, special purpose/general

1. Change “Object Class” name and “Distinction” to the following:

Object Class: Beacon, special purpose

Distinction: daymark; beacon lateral; beacon safe water; beacon isolated danger; beacon cardinal; beacon in general; distance mark. (TSMAD/5/5.3A)

Code ? – BCNGEN Beacon in general

1. Add new Geo Object Class BCNGEN – See example at [Annex A.1](#): (TSMAD/5/5.3A)

Code 19 – BOYSPP Buoy, special purpose/general

1. Change “Object Class” name and “Distinction” to the following:
Object Class: Buoy, special purpose
Distinction: buoy lateral; buoy safe water; buoy isolated danger; buoy cardinal;
buoy in general; buoy installation; mooring/warping facility;
(TSMAD/5/5.3A).

Code ? – BOYGEN Buoy in general

Add new Geo Object Class BOYGEN – See example at [Annex A.2](#): (TSMAD/5/5.3A)

Code 38 – DAMCON – Dam

1. Add attribute STATUS in Set Attribute_A. (TSMAD/7/7.4)

Code 56 – FSHGRD - Fishing ground

1. Add new attribute RESTRN
Reason: Australia has seasonal Rock Lobster fishing areas with entry restrictions.
(TSMAD/7/7.7)

Code 59 – FORSTC Fortified structure

1. Add new attribute STATUS
Reason- for example to indicate that a battery is disused or a castle is illuminated. (TSMAD/5/5.3A)

Code 64 – HRBFAC Harbour facility

1. Add new attribute PRODC to Object Class HRBFAC.
Reason- for example, to indicate what type of product is loaded at a bulk or tanker terminal. (TSMAD/5/5.3A)
2. Add attribute RESTRN
Reason- In Australia, Naval ports (CATHAF = 6) have restrictions.
(TSMAD/7/7.7).

Code 90 – PILPNT Pile

1. Add new attribute CONRAD.
Reason- A PILPNT object may be equipped with a radar reflector; since the RADRFL object may only be used to encode radar reflectors on line objects, the attribute CONRAD=3 is required for the PILPNT object.
(TSMAD/4/8.2A)

Code 91 - PILBOP - Pilot boarding place

1. Add new attribute CALSGN to Object Class PILBOP.
Reason - Encoders are placing "call signs" into INFORM. For example, in Australian waters PILBOP (pilot boarding places) often have a CALSGN. The attribute COMCHA is not deemed sufficient. (See also 8.Co...)

Code 94 – PIPSOL Pipeline, submarine/on land

1. Add new attribute RESTRN.
Reason- Australia have a number of submarine pipelines which carry gas and have a prohibited anchoring area over the adjacent area. (TSMAD/5/14.1).

Code 102 – RADSTA Radar station

1. Add new attribute CALSGN to Object Class RADSTA.
Reason- Radar stations may have a call sign. (TSMAD/5/5.3A)

Code 104 – RDOCAL – Radio calling-in point

1. Add attribute CALSGN in set Attribute_A.
Reason - Specific call signals are used for radio call-in-point. (TSMAD/7/7.4).

Code 144 – TOPMAR – Topmark

1. Add attributes PERSTA, PEREND, DATSTA and DATEND in Set Attribute_A. Refer to Correction TSMAD/7/7.4 proposal. (TSMAD/7/7.4)

S-57 Appendix A Chapter 2 - Attributes

General

1. See also deferred items: INT references for the following need to be corrected Attributes: 2.16 - CATCBL, 2.54 - CATNAV, 2.89 - CATSIL, 2.178 - RESTRN, 2.227 - TRAFIC, 2.228 - VALACM, 2.231 - VALMAG, 2.236 – VERCLR. (TSMAD/7/7.7)
2. Review all existing definitions, and provide new definitions where none exist. (See TSMAD/8/9.3 No1)
3. Review and alter all INT1 references to Appendix B.1 Annex D references. (See TSMAD/8/9.3 No 2).
4. New time attributes to be added to relevant objects for S-57 edition 4.0. (See TSMAD/8/9.3 No 3)
5. Alter M-4 ref to include the Part number i.e. B-prefix. (See TSMAD/8/9.3 No 7).
6. Review and check all attribute values resulting from extensions. (See TSMAD/8/9.3 No 22).

Code 17 - CATCON - Category of conveyer

1. Add new value 3:Flume
Definition - An artificial channel, usually an inclined chute or trough, for carrying water to furnish power, transport logs down a mountainside, etc. (Websters New World Dictionary Third College Edition) (TSMAD/4/8.2A).

Code 28 – CATFOR Category of fortified structure

1. Add value 7 : Fortified submarine shelter
Definition: a large concrete structure strengthened to give protection to docks for submarines. (TSMAD/5/5.3A)

Code 30 - CATHAF : Category of harbour facility

1. Add value 14 : Service harbour
Definition - A harbour within which the floating equipment (dredgers, tugs...) of harbour services are stationed. (TSMAD/4/8.3)

Code 45 – CATPLE – Category of pile

1. Add the following attribute values
5: piling INT 1 - IG 179
6: row of piles INT 1 - IG 180

Definitions:

Piling: a number of piles, usually in a straight line, and usually connected or bolted together (adapted from IHO Dictionary, S-32, 5th Edition, 3841).

Row of piles: a number of piles, usually in a straight line, but not connected by structural members (Australian Hydrographic Service).

Code 53 – CATROS – Category of radio station

1. Add new value 15: Radio telephone station
Definition - The equipment needed at one station to carry on two way voice communication by radio waves only. (Websters New World Dictionary Third College Edition). (TSMAD/4/8.2A)

Code 56 - CATREA : Category of restricted area

1. Add value 27 : Disengagement area
Definition - an area near a fairway where vessels can go to clear the way or make an about turn and possibly return to a waiting area when the nautical conditions impose it. (TSMAD/4/8.3)

Code 60 – CATSLC – Category of shoreline construction

1. Added new attribute value:
17:swimming facility
Definition: an artificial pool or swimming enclosure, especially one in the open air, which may be constructed of wire mesh or heavy netting supported by cables, buoys or piles, for swimming in (adapted from the Macquarie Concise Dictionary). (TSMAD/7/7.7)

Code 66 – CATSPM – Category of special purpose mark

1. Add new value 57: Ice mark
Definition - a mark, used year round, that may be submerged when ice passes through the area. (TSMAD/7/7.4)

Code 82 – CONRAD : Conspicuous, radar

1. Add Value 4 : radar conspicuous (has Radar Target Enhancer)
Definition : an object which returns an enhanced radar echo, having a radar target enhancer. (TSMAD/5/5.3B)

Code 68 - CATVEG - Category of vegetation. Withdrawn (TSMAD/5/5.2A)

1. ~~Add new value 23: March wood~~
~~Definition — A non algae class of vegetation growing in marshes including grasses, sedges, cattails or rushes. (TSMAD/4/8.2A)~~

Code 94 – FUNCTN Function

1. Add value 43 : Passenger terminal building
Definition : a building in which passengers are in transit before embarking or after disembarking a ferry. (TSMAD/5/5.3A)
2. Add value 44 : Sea rescue control
Definition : used to organize and coordinate the sea rescues
Reason : To encode French regional centre in charge of the traffic control (FUNCTN = 39) and of the sea rescue organization. (distinct from a rescue station at which life saving equipment is held). (TSMAD/5/5.3A)
3. Add value 45 : Observatory
Definition : a building or place equipped with instruments for making observations of natural phenomena, especially in astronomy or meteorology. (The New Shorter English Dictionary). (TSMAD/5/14.1)
4. Add value 46 : Ore crusher
Definition : a building or structure used to crush ore. (AHO definition). (TSMAD/5/14.1)

Code 108 – LITVIS : Light visibility

1. Add value 9 : visible in line of range
Definition - lights that must be in line to be visible. (TSMAD/4/14.6)

Code 131 – RESTRN : Swimming prohibited

1. Add value 28 : Swimming prohibited
Definition - An area within which swimming is prohibited. (TSMAD/4/8.3)

Code 149 – STATUS: Status

1. Add value 19 : Buoyed

Definition : marked by buoys.

Reason : This attribute value should be useful to encode the numerous areas or fairways with only the word "Buoyed" written on the paper chart. (TSMAD/5/5.3A)

S-57 Appendix B1 ***ENC Product Specification***

3.3 Objects permitted for use in ENC and their geometric primitives (Table 3.1)

1. The allowable geometric primitives for Object Class **PILPNT** must be amended to include L (line). (TSMAD/7/7.7)
2. The allowable geometric primitives for Object Classes **FLODOC** and **PONTON** must be amended to include P (point). (TSMAD/7/7.7).

S-57 Appendix B1 – Annex A ***Use of the Object Catalogue***

1. Review and alter INT1 ref to appendix B.1 Annex D references.
2. New section dealing with time attributes for S-57 edition 4.0. (See TSMAD/8/9.3 No 3)
3. Alter M-4 ref to include the Part number i.e. B-prefix for the next new edition. (See TSMAD/8/9.3 No 7).
4. Better guidance and possible new mechanism required for encoding collection objects. (See TSMAD/8/9.3 No 7).

S-57 Appendix B1 – Annex D

1. Add any missing S-57 objects applying to ENC's, publish new edition of Annex D.
2. Digitally link M-4 to App B.1, Annex D and publish new edition after release of new edition of M-4. (See TSMAD/8/9.3 No 8).

Object Class: Beacon, in general

Acronym: **BCNGEN**

Code: ?

Set Attribute_A: BCNSHP; COLOUR; COLPAT; CONDTN; CONRAD; CONVIS;
DATEND; DATSTA; ELEVAT; HEIGHT; MARSYS; NATCON;
NOBJNM; OBJNAM; PEREND; PERSTA; STATUS; VERACC;
VERDAT; VERLEN;

Set Attribute_B: INFORM; NINFOM; NTXTDS; PICREP; SCAMAX; SCAMIN; TXTDSC;

Set Attribute_C: RECDAT; RECIND; SORDAT; SORIND;

Definition:

A beacon is a prominent specially constructed object forming a conspicuous mark as a fixed aid to navigation or for use in hydrographic survey (IHO Dictionary, S-32, 5th Edition, 420).

Beacon in general: A beacon whose appearance or purpose is not adequately known.

References:

INT 1:

M-4: 455;

Remarks:

Topmark, light, fog signal, radar reflector and retro-reflector are separate objects.

Distinction: daymark; beacon lateral; beacon safe water; beacon isolated danger;
beacon cardinal; Beacon special purpose; distance mark;

Object Class: Buoy, in general

Acronym: **BOYGEN**

Code: ?

Set Attribute_A: BOYSHP; COLOUR; COLPAT; CONRAD; DATEND; DATSTA;
MARSYS; NATCON; NOBJNM; OBJNAM; PEREND; PERSTA;
STATUS; VERACC; VERLEN;

Set Attribute_B: INFORM; NINFOM; NTXTDS; PICREP; SCAMAX; SCAMIN; TXTDSC;

Set Attribute_C: RECDAT; RECIND; SORDAT; SORIND;

Definition:

A buoy is a floating object moored to the bottom in a particular place, as an aid to navigation or for other specific purposes. (IHO Dictionary, S-32, 5th Edition, 565).

Buoy in general: A buoy whose appearance or purpose is not adequately known.

References:

INT 1:

M-4: 460;

Remarks:

Topmarks, light, fog signal, radar reflector and retro-reflector are separate objects.

Distinction: Buoy lateral; buoy safe water; buoy isolated danger; buoy cardinal; buoy installation; buoy special purpose; mooring/warping facility.