

**13th TSMAD MEETING**  
18 to 22 September 2006 – Wellington, New Zealand

**MINUTES OF THE 12<sup>th</sup> TSMAD WORKING GROUP MEETING**  
**7 – 8 November 2005, Wollongong, Australia**

**Attachments**

Appendix A - List of Documents  
Appendix B - List of Attendees  
Appendix C – Agenda

**1. Opening and Administrative Arrangements**

1.1 The Chairman of the IHB's CHRIS Committee, Captain Robert Ward, RAN, on behalf of the Hydrographer, RAN, welcomed members of the TSMADWG and its Sub-Working Group on extending S-57, to Wollongong. This is an important meeting to develop the way forward for ENC production. This is particularly important for Australia who is intending on completing its ENC coverage for 11.5 million square miles in the next 3.5 years.

1.2 Following on from the recent Stakeholders Meeting, Captain Ward stated that the work of this group must not have any negative impact on the stakeholders. Key considerations for this meeting are:

1.2.1 All stakeholders want predictability and stability in order to determine what and when the impact will be from any changes to S-57.

1.2.2 Need to face reality that not everyone will agree with decisions.

1.2.3 Incrementally improve S-57 and to consider optimal performance for operating systems and software and to ensure HO's, manufacturers and users can upgrade their systems.

1.2.4 Need to be flexible to ensure HO's do not have to prepare two streams/versions of ENC data.

1.2.5 Minimal impact on manufacturers so that re-certification of type approval is not necessary.

1.2.6 Ongoing work is undertaken in collaboration with the stakeholder community.

**2. Approval of Agenda**

2.1 The annotated agenda (*TSMAD12\_2\_Agenda\_rev2*) was approved with minor amendments.

**3. Approval of the 11<sup>th</sup> TSMADWG Minutes**

3.1 The minutes (*TSMAD12\_MinutesforTSMAD11*) were approved.

### **3.2. Action Items arising from the minutes of the 11<sup>th</sup> TSMAD meeting (TSMAD12-3B Action Items)**

3.2.1 Action Item at 1.2.1. (inform stakeholders about the future of the ENC PS) – IHO C/L 94 covered this item.

3.2.2 Action item at 4.16 (encoding ESSAs and PSSAs). – will be covered later in this meeting.

3.2.3 Action item at 4.17 (encoding fairways) – Still an ongoing development issue with CSPCWG – questionnaire available from Australia and the CSPCWG will be issuing a C/L on this matter in the next few months. A copy of the documentation from the CSPCWG will be issued via the OEF.

3.2.4 Action item at 5.2 (options paper for ENC PS) – done.

3.2.5 Action item at 5.3 (investigate print-on-demand capability) – done.

3.2.6 Action item at 5.4 (funding to finance OEF) – done - new server installed at the UNH, but the discussion forum is being badly hit by spam.

3.2.7 Action item at 6.2.1 (role of IHO FDD register manager) – no response yet to take on that role.

3.2.8 Action item at 6.2.3 (procedure for proposing new features for FDD register) – placed on the Development Page, but not yet distributed as it was felt that it is not yet mature enough.

3.2.9 Action item at 6.2.4 (a) (S-57 E3.1 FDD check/review) – not commenced

3.2.10 Action Item at 6.2.4 (b) (Authoritative list of Inland ECDIS features) - done

3.2.11 Action item at 6.2.4 (c) (retire or supersede S-57 V2 objects/attributes) – further discussion in the Sub-WG.

3.2.12 Action item at 7.2 (ECDIS error report issue to CHRIS) – done – also discussed at CHRIS17 and that some improvement has taken place amongst some manufacturers.

3.2.13 Action item at 9.1 (feedback on previous Netherlands proposals) – done.

3.2.14 Action item at 9.3.6 (maritime boundary issues for S-100) – still ongoing due to further research work and more discussion on the CATMAR attribute prior to formal inclusion in Ed 3.1.1. - to be discussed later in this meeting.

3.2.15 Action item at 10.1 (S-57 definition harmonisation with S-32) - still ongoing.

3.2.16 Action item at 10.1.1 (remove distinctions from S-57 E3.1 register) – to be discussed later in this meeting.

3.2.17 Action item at 10.4 (distribution of PRIMAR document) – done.

3.2.18 Action item at 10.5 (review of OEF) – ongoing.

3.2.19 Action items at 10.6.1 (industry involvement in testbed projects for S-100) – done - good discussion at the Stakeholders Forum and will use CIRM as a conduit for getting information out to industry.

### **4. Matters Arising (Agenda 4.)**

4.1 None

### **5. CHRIS 17 – Rostock (Germany) (Agenda 5)**

5.1 TSMAD work was a main topic at the Stakeholders Workshop and continued to be a main topic in the following CHRIS17 Meeting. Ongoing discussions regarding the S-57 Ed. 4 at the Sub-WG meeting in New Hampshire led to the writing of a position paper that was widely distributed through the hydrographic community.

5.2 Direction from CHRIS and discussed in IHO C/L 93 and 94 was to implement Ed 3.1.1 to accommodate ASL, ESSA, PSSA and “placeholder” object to cover any general encoding matters. The next version of S-57 is to be numbered as S-100 with a release planned for 2007. The next version of the ENCPS (S-101) would be a stand-alone Product Specification to be implemented in 2012.

5.3 There is a need to look at the title of the current S-57 and review it in terms of the new S-100. This will be discussed in the Sub-WG.

5.4 Chair outlined the future involvement of NGIO representatives as observers to IHO WG meetings thus requiring some modification to the various TOR’s of the Working Groups. Also discussed was the new structure whereby current committees such as CHRIS, WEND, etc would be re-structured into Technical Committees and Policy Committees. TSMADWG would become a WG under a new sub-committee.

## **6. S-57 Edition 3.1.1 – Proposals for New Objects, Attributes, Values and Codes**

6.1 Australia - (Archipelagic Sea Lanes (ASL)). A number of proposals from Australia that were originally presented at TSMAD11 were reconsidered given ongoing development work. This work resulted in two new objects being agreed at TSMAD12 – relating to the axis/centreline (**ARCXLN**) and the area of the ASL itself (**ASLSLN**). No new attributes or new attribute values to existing attributes were required for these 2 new objects.

6.2 Australia – Environmental and Protected Sensitive Sea Area (ESSA, PSSA) (TSMAD12 agenda item 6.2 - PSSA) Whilst Australia’s proposal at TSMAD11 was approved for Ed. 4, a solution was required for Ed. 3.1.1. and the following was agreed:

6.2.1 ESSAs and PSSAs will be encoded as **RESARE** with 2 new attribute values for existing CATREA:

27: ESSA  
28: PSSA

6.2.2 The CATREA attribute value “Disengagement area” was previously agreed as an extension (*TSMAD/4/8.3*). A value for this attribute will need to be assigned in S-100.

6.2.3 The document *CSWG\_contrib\_to\_PSSA\_for\_CSPCWG.doc* provides additional information regarding the presentation issues of this data.

6.3 “Placeholder/Generic” object (*TSMAD12-6.3B\_Generic\_Feature\_for\_E3.1.1.doc*).

6.3.1 In order to accommodate possible future objects, TSMAD agreed to create one new object with two new attributes.

6.3.1.1 The new Object is ‘Generic Object’: **GENOBJ**

6.3.1.2 The two new Attributes are: ‘Generic Definition’ **GENDEF** and ‘Generic Name’ **GENNAM**

6.3.2 This Object will only be used for ENC's when advised by the TSMADWG for a specific encoding purpose. Encoding advice will be provided by an ENC Encoding Bulletin issued by TSMAD. An S-58 test will be developed to check for the existence of the new object as an ERROR until it gets enacted. **Action: S-58 group to devise a new test.**

#### 6.4 C-Map (*C-MAP\_proposal1.doc*)

6.4.1 C-Map proposed an additional attribute value for AIS to attribute CATROS - Not agreed. Encoding advice will be through the FAQ process – probably for the AIS information to be encoded in the INFORM field. Encoding of AIS objects will probably be a matter for more in-depth consideration in the future. **Action: Australia to prepare a FAQ for encoding AIS information.**

6.4.2 C-Map were also advised that all future proposals need to be made through a national HO.

#### 6.5 S-57 Edition Number header information for Edition 3.1.1.

6.5.1 To minimise the impact on data structure changes to support Edition 3.1.1, it was agreed that the DSID:COMT subfield will be used with the following text to be included for those data sets produced to Ed. 3.1.1: **STED: 3.1.1; Action: S-58 to include a test that checks for the correct format of the DSID:COMT field if the data set includes any of the new objects agreed for Ed. 3.1.1**

#### 6.6. S-57 Addendum Document

To inform the hydrographic community of the changes to S-57, an Addendum Document will be prepared that will describe the new features included in Ed. 3.1.1.

6.6.1 **Actions - Prior to, or upon publication of the Addendum document, the following actions are to be considered:**

**Australia: For each new object and attribute, an Encoding Bulletin and FAQ will be issued to assist with the interpretation and to provide encoding advice;**

**Chair: C&SWG advised**

**Chair: Letter to IEC TEC80 WG7**

**Chair/IHB: IHO Circular Letter to be issued**

### 7. Report from the S-100 Extensions Sub Working Group

7.1 The chairman of the Sub WG on S-57 provided a brief presentation on the activities of the Sub-Working Group. The last meeting was held at the University of New Hampshire and one of the main aspects to come out of this meeting was a Development Process for a Work Item (*Ref: TSMAD12-7\_DevProcess*).

7.2 Whilst each work item is described as a Component and are developed as standalone items, they are considered as a part of the main Standard. The main phases of development are as follows:

- Working Draft
- Working Draft Approved
- Committee Draft
- Committee Draft Approved
- Final Draft
- Final Draft Approved

7.3 Each of the Work Items will be discussed in the Sub-WG meeting later in the meeting. The next Sub-WG meeting at Brest in early 2006 is scheduled to complete the Meta Data and Registry components and promote them to a Committee draft status.

## 8. Reports from other Working Groups

8.1 Report from the Standardization of Nautical Publications Working Group (SNPWG). The chairman of this WG, Johannes Melles (Germany) provided a brief outline of the work undertaken by the SNPWG. The latest meeting took place in Copenhagen, Denmark. He noted that the SNPWG will be using UML to model their nautical publications information and this will be considered as an Extension to S-100. The content of existing NP's were analyzed and they found 8 logical groups thus allowing priorities to be established for the modeling. The 8 logical groups in priority order are:

- Marine Services
- Traffic Management
- Harbour infrastructure
- Social/Political
- Environment
- Hydrography – partly done in S-57
- Topography – partly done in S-57
- References

8.1.2 The WG intends to develop a proposal for S-100 by Spring 2007 covering about 35 new object classes and a similar number of attributes. The proposal will also likely involve additions to existing attributes.

8.1.3 The WG identified the need to investigate display requirements of digital NP data intended for use in an ECDIS.

8.1.4 The WG further identified two issues to be considered:

8.1.4.1 The current TSMAD forms for object and attribute proposals are not efficient for use by this WG. The use of a Register may be more appropriate. **Action: UK to provide advice to the WG on an appropriate format to insert the new objects and attributes into the IHO Register with a “proposed” status tag.**

8.1.4.2 Where should these objects/attributes be stored within the current/proposed document structure – object/attribute lists, S-1XX product specification, encoding guidelines, etc? **Action: Canada volunteered to offer advice based on the experiences with the ICE Register.**

8.1.5 A request was made that the Spring 2007 meetings for TSMAD and SNPWG be held back-to-back to discuss the large number of expected proposals for the Standard. **Action: IHB to consider meeting timing coordination during 2007.**

8.2 IC-ENC Technical Experts Working Group (TEWG). IHB reported that the TEWG were interested in the TSMADWG activities and in particular the implementation of the 2003 ENC Consistency document. The TEWG were pleased that recommendations from this document were being implemented to various degrees. Reports of ENC uptake were positive however the number of customers renewing data purchases was not quite as positive as hoped.

8.3 Hydrographic Interoperability Harmonization Working Group (HIHWG). UK reported on the 6th meeting of this group (Halifax) with one meeting to go in January 2006 where the final report will be completed. The focus is on the S-57/DIGEST harmonization. One major benefit of this group was the S-57 Meta Data work item was able to be improved based on the experiences from other harmonization efforts. It is difficult to make a straight conversion of data between the two data formats and so the major outcome of this group is the development of a neutral content model and database repository whereby features/objects are broken into smaller components. This will allow additional automated processing to output this neutral data into any specific format. Subject to additional funding, the group will investigate the development of an open-source tool box to generate the various data formats. The effort involved at this stage has amounted to five man-years of effort.

8.4 Report to TSMAD12 on CSPCWG2. (TSMAD12-8.4A) Australia reported on the progress of the major review of M-4. A list of issues for S-100 and S-101 is currently being compiled as a result of this review. Item 15 of the report noted that no responses from TSMAD had been received as a result of work being done by the CSPCWG. The CSPCWG is starting to address M-4 Part 400 Hydrography and this section may have quite an impact on ENC interpretation and encoding.

**Action: Australia to prepare report on M-4 issues for S-100 and S-101 (ongoing)**

8.4.1 Australia proposed that the FAQ group provide formal responses to the CSPCWG on issues of encoding, particularly relating to any new objects/attributes. Further, that the FAQ responses be reviewed by the TSMADWG Chairman who will then respond formally to the CSPCWG.

**Action: FAQ coordinator (Jeff Wootton AU) and Chair**

## **9. ENC - FAQ and Recommended Practices.**

9.1 NOAA – ENC datasets that cross the 180° longitude line (*TSMAD12-9-1A\_NOAA\_180.doc*)

NOAA identified some issues with various systems (GIS, ECDIS) supporting data that crosses the 180° longitude line. To date, most HO's split their cells on regular geographic bounds and hence data tends to stop at this longitude, rather than straddle it. From a technical viewpoint, it was felt that this issue is an engineering matter for software manufacturers. Irrespective of how HO's encode data, there is no guidance given in relation to handling the 180° longitude line.

**The following actions were agreed:**

**a. Australia to draft a FAQ response;**

- b. SevenCs to develop a small test data set that crosses the 180° longitude line.
- c. Consideration be given to developing a proper test data set that can be included in the IHO Test Data Set
- d. Chairman to write a letter to IEC WG7 to include a type approval test relating to a cell that straddles 180° longitude
- e. Germany offered to run a test set that straddles 180° longitude through various ECDIS within their type approval group.

9.2 USA NOAA – recommendation for encoding COLREG Demarcation Lines (*TSMAD12-9-1B\_NOAA\_COLREG\_demarcationline.doc*)

NOAA currently depicts Demarcation lines on their products that define the Inland rules from the IMO rules. It was agreed that NOAA should encode these as Caution Areas (**CTNARE**) with the appropriate information stated in the INFORM attribute. **Action: USA NOAA to develop an Encoding Bulletin on this matter.**

9.3 PRIMAR - The Use of Underscore “\_” in ENC File Names (*TSMAD12-9.2\_Filenames.doc*)

The role of the Maintenance Document is confusing in relation to issues that are both stated as clarifications and corrections (as in this case 1.Cl.37 and 1.Co.32). A Clarification can be implemented but a Correction cannot be implemented until the next major release of S-57.

**Action: Chairman to respond to PRIMAR that “\_” is currently not allowed in ENC filenames until the next Edition, as noted in 1.Co.32. Australia to prepare a FAQ on the “\_” issue.**

9.4 Germany – Encoding QUASOU and TECSOU on Wrecks and Obstructions (*TSMAD12-9.3\_wrecks.doc*)

Changes to the Wrecks (UOC 6.2), Obstructions (UOC 6.2.2), Tables 6.2 and 6.3 regarding QUASOU and TECSOU for Measured Depth and Depth measured and swept by wire or diver were agreed.

**Action: Germany to prepare an Encoding Bulletin describing a means for encoding this information. The S-58 group to modify the tests with a WARNING message being shown.**

## 10. National Proposals (not related to Edition 3.1.1)

10.1 None

## 11. Any Other Business

11.1 Canada – Ice Registers

11.1.1 Canada reported on the recent meeting with the ICE expert group. Ongoing work within this group in relation to hydrographic aspects of ice includes:

- Correct minor typographic errors
- Harmonisation of various features
- Additional meta data requirements
- Letters to IHO CHRIS and TSMAD can be expected regarding formalizing arrangements and MOU's

## 11.2 South Africa – Display issues in ECDIS

11.2.1 South Africa experienced two display problems with area objects as follows:

11.2.1.1 SLOGRD area objects not being displayed on the ECDIS.

11.2.1.2 SMCFAC area feature obliterates some important land point features (e.g. **LNDMRK**), particularly when the point feature is not visually conspicuous.

**Action:** South Africa will send a test data set to IC\_ENC to review the display issues in various ECDIS. If the display problem is found to exist with most ECDIS, South Africa will contact the TSMAD Chair to forward the display issues to C&SMWG Chairman.

## 11.3 Germany - Duplicate FOID in a data cell

This issue is caused when a long or complex object sourced from a database is cut into different parts which are included in the same cell (e.g. coastline, contours). Problems can be experienced with relationships between FOID's. The ENCPS implies, but does not specifically state that duplicate FOID's cannot exist within the same cell. When using aggregated objects in the product, there could be problems with updating. A mechanism needs to be developed which allows a feature to have one FOID but will allow pointing to multiple spatial objects that represent that feature.

**Action:** S-58 group to test that the current S-58 test #503 does issue a **WARNING** rather than an **ERROR** and to add additional testing criteria i.e. same attributes, same spatial primitives. Also whilst this test is being considered, a small group (Australia) will assist France with updating the S-58 document for 3.1.1 extensions and other minor corrections found during previous reviews.

## 11.4 Sweden – Roadmap

Sweden requested that a roadmap be developed that outlines the future development for S-101 (next ENC Product Specification) as well as describe dependencies amongst other standards groups. One of the work areas within the Sub-WG for this week is to develop a framework document that will define timelines and critical points taking into consideration the contents of IHO C/L 93 and 94.

## 12. Date and Venue of next meeting.

11.1 It was agreed that the next TSMAD meeting should take place during October/November 2006. The venue is yet to be determined.



## List of Documents

No	Document	Description
	TSMAD12_Logistics	Logistic Information for the Meeting.
1A	TSMAD12-1A_Docs	List of Meeting Documents.
1B	TSMAD12-1B_Participants	List of Participants (Not yet available)
2	TSMAD12-2_Agenda	Meeting Agenda.
3A	TSMAD12_3A_Minutes	Minutes of the TSMAD 11 Meeting.
3B	TSMAD12_3B_Actions	List of Actions arising from the TSMAD 11 meeting.
5.1	TSMAD12_5-1_LO2-2005_CHRIS	TSMAD Letter L02-2005, including relevant action items
6.4	C-MAP_proposal1.doc	Various proposals from C-Map
7	TSMAD12-7_DevProcess	TSMAD Component Development Process
8.4A	TSMAD12-8.4A CSPCWG2 Report to TSMAD12	Paper Chart Working Group 2005 Report
8.4A Annex	TSMAD12-8.4A Annex A	Annex A to Paper Chart Working Group 2005 Report
9.1	TSMAD12-9-1A_NOAA_180	NOAA – ENC datasets that cross the 180° longitude line
9.2	TSMAD12-9-1B_NOAA_COLREG_demarcationline	NOAA – Encoding of COLREG Demarcation Lines
9.3	TSMAD12-9.2_Filenameconvention	PRIMAR - The Use of Underscore “_” in ENC File Names
9.4	TSMAD12-9-3_wrecks	Germany – Encoding on Wrecks and Obstructions
11.2	TSMAD12-11-1_RSA1_SLOGRD and TSMAD12-11-1_RSA2_SMCFAC	South Africa – Display Issues with SLOGRD and SMCFAC Area Objects

**PROVISIONAL AGENDA**

(7<sup>th</sup> November 2005)

1. **Opening and Administrative Arrangements**
  - 1.1 List of Documents (*TSMAD12\_1A\_Docs*)
  - 1.2 List of Participants (*TSMAD12\_1B\_Participants*)
2. **Approval of Agenda**
  - 2.1 (*TSMAD12\_2\_Agenda*)
3. **Minutes of the 11<sup>th</sup> TSMAD Meeting, 7-11 November 2004, IHB, Monaco**
  - 3.1 (*TSMAD12\_3A\_Minutes*), (*TSMAD12\_3B\_Actions*).
4. **Matters arising.**
5. **CHRIS 17 – Rostock (Germany)**
  - 5.1 TSMAD Letter L02-2005, including relevant action items
6. **S-57 Edition 3.1.1**
  - 6.1 Archipelagic Sea Lanes
  - 6.2 Particularly Sensitive Sea Areas
  - 6.3 “Placeholder” Object Proposals
  - 6.4 National Proposals for inclusion in 3.1.1
7. **Reports from S-100 Extensions Sub-Working Group**
  - 7.1 Overview of S-100 Component Development Process
    - 7.1.1 TSMAD Component Development Process (*TSMAD12-7\_DevProcess*)
  - 7.2 S-100 Component Drafts Promoted to Final Draft
    - 7.2.1 Imagery and Gridded Data
    - 7.2.2 One and Two Dimension Spatial
  - 7.3 S-100 Component Drafts Promoted to Committee Draft
    - 7.3.1 Meta Data
    - 7.3.2 Registry
  - 7.4 S-100 New Component Work
    - 7.3.1 S-101 ENC Product Specification
8. **Reports from other IHO Working Groups**
  - 8.1 Report from the Standardization of Nautical Publications Working Group (SNPWG).
  - 8.2 Report from the IC-ENC Technical Experts Working Group (TEWG)
  - 8.3 Report from the Hydrographic Interoperability Harmonization Working Group (HIHWG)
  - 8.4 Report to TSMAD12 on CSPCWG (*TSMAD12\_7-4\_CSPCWGReport*)
9. **ENC - FAQ and Recommended Practices.**
  - 9.1 NOAA – ENC datasets that cross the 180° longitude line (*TSMAD12-9-1A\_NOAA\_180.doc*)
  - 9.2 NOAA – recommendation for encoding COLREG Demarcation Lines (*TSMAD12-9-1B\_NOAA\_COLREG\_demarcationline.doc*)
  - 9.3 PRIMAR - The Use of Underscore “\_” in ENC File Names (*TSMAD12-9-2\_Filenameconvention.doc*)
  - 9.4. Germany – Duplicate FOID’s in a single ENC Data Set
10. **Proposals (not related to Ed. 3.1.1)**

**TSMAD12 Meeting (including the SubWG Meeting)  
7-11 November 2005, Wollongong, Australia**

**List of Participants**

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## List of Actions

Paragraph	Action Items
6.3.2	S-58 group to devise a new test.
6.4.1	Australia to prepare a FAQ for encoding AIS information.
6.5.1	S-58 to include a test that checks for the correct format of the DSID:COMT field if the data set includes any of the new objects agreed for Ed. 3.1.1
6.6.1	<p>Prior to, or upon publication of the Addendum document, the following actions are to be considered:</p> <p>Australia: For each new object and attribute, an Encoding Bulletin and FAQ will be issued to assist with the interpretation and to provide encoding advice;</p> <p>Chair: C&amp;SWG advised</p> <p>Chair: Letter to IEC TEC80 WG7</p> <p>Chair/IHB: IHO Circular Letter to be issued</p>
8.1.4.1	UK to provide advice to the WG on an appropriate format to insert the new objects and attributes into the IHO Register with a "proposed" status tag.
8.1.4.2	Canada volunteered to offer advice based on the experiences with the ICE Register.
8.1.5	IHB to consider meeting timing coordination during 2007.
8.4	AU to prepare report on M-4 issues for S-100 and S-101 (ongoing)
8.4.1	FAQ coordinator (Jeff Wootton AU) and Chair
9.1	<p>The following actions were agreed:</p> <p>a. Australia to draft a FAQ response;</p> <p>b. SevenCs to develop a small test data set that crosses the 180° longitude line.</p> <p>c. Consideration be given to developing a proper test data set that can be included in the IHO Test Data Set</p> <p>d. Chairman to write a letter to IEC WG7 to include a type approval test relating to a cell that straddles 180° longitude</p> <p>e. Germany offered to run a test set that straddles 180° longitude through various ECDIS within their type approval group.</p>
9.2	USA NOAA to develop an Encoding Bulletin on this matter.
9.3	Chairman to respond to PRIMAR that "_" is currently not allowed in ENC filenames until the next Edition, as noted in 1.Co.32. Australia to prepare a FAQ on the "_" issue.
9.4	Germany to prepare an Encoding Bulletin describing a means for encoding this information. The S-58 group to modify the tests with a WARNING message being shown.
11.2.1.2	South Africa will send a test data set to IC_ENC to review the display issues in various ECDIS. If the display problem is found to exist with most ECDIS, South Africa will contact the TSMAD Chair to forward the display issues to C&SMWG Chairman.
11.3	That the current S-58 test #503 issue a WARNING rather than an ERROR and add additional testing criteria i.e. same attributes, same spatial primitives. Also whilst this test is being considered, a small group will assist France (Australia) with updating the S-58 document for 3.1.1 extensions and other minor corrections found during previous reviews.

## CUMULATIVE DEFERRED ACTION LIST

**October 2003**

At the 4<sup>th</sup> TSMADWG meeting held in Ostend, Belgium (15 – 17 June 1999), it was noted that many items raised for discussion were not of immediate significance for the next edition of S 57, or required further study. It was decided that these items should be added to a Deferred Actions List, which would be cumulative and would be distributed to TSMAD Working Group members as an attachment to the minutes. TSMAD Working Group members are reminded that deferred items from previous meeting that should also be added to the list should be sent to secretary ([pad@ihb.mc](mailto:pad@ihb.mc)). Any such additions should be accompanied by a brief resume giving an explanation of the proposal(s), as well as a reference to the national paper in which it appeared.

### **Deferred Actions from TSMAD/4 – Ostend, Belgium (15 –17 June 1999).**

TSMAD/4/8.1A

8.1 Australian discussion paper dealing with Maritime Boundaries, proposing new Object Classes; MARARE, MARBDY, AUTHTY, CATMAR, LEGISN required further study. Australia, USA, Sweden, and Canada to carry out further work.

TSMAD/4/8.2A

8.3.4 Proposal to add VALSOU to object SLCONS (S 57 Appendix A, Chapter 1) was deferred as it requires further investigation.

TSMAD/4/8.3

8.5.4 The proposal concerning S-57, Part 2, Chapter 8.4 and Appendix B1 Chapter 6.1.1 requested a clarification concerning the way in which new records are inserted during an ENC update. It was decided that no action would be taken until more experience had been gained.

8.5.6.3 Attribute FUNCTN - It was decided that the requirement for a new attribute value “Harbor station” needed further study as it was not clear whether an existing attribute value could be used for this purpose.

8.5.6.5 Attribute STATUS – The proposal to add a new attribute value “Name written”, for objects displaying their names, was deferred for further study

8.5.7.1 It was decided that the proposed clarification to Chapter 3.8 (Geometry) required further consideration.

8.5.7.3 Item 3 concerning Chapter 5.2 Volume naming. It was decided that although “Volume” is no longer used, it should be kept for historical reasons, but should be reviewed at a later date.

8.5.7.7 The proposal (concerning S-57 Appendix B1, Chapters 6.3.1 and 6.4.1), requesting that the optional fields and their multiplicities for EN and ER profiles be specified in detail required further study.

- 8.5.9 France requested clarification on the use of the safety contour on the shoreline. It was agreed that, although this was still an encoding requirement, it should be re examined for future editions.

TSMAD/4/8.4

- 8.6 Hydrographic Product Catalogue – Product Specification. It was decided that this paper presented some interesting concepts, but needed further development.

TSMAD/4/8.5

- 8.7.1 The proposal to add attribute MARSYS to object class Light Float - LITFLT could only be included in the next major edition of S-57, but should however be given further study.
- 8.7.2 UK stated that it was not possible to encode HORCLR ,VERCLR etc, on LOKBSN objects at navigable scales. INFORM was being used for encoding these values, and it was decided that this required further study.
- 8.7.3 UK recommended the inclusion of an attribute similar to LITVIS to encode obscured reception Radio Transponder Beacons RTPBCN. It was suggested that INFORM be used until a better solution could be found.

TSMAD/4/8.6A

- 8.8.6 Item 6 concerning Appendix B1, ENC Product Specification – Chapter 5.7 Updating. It was noted that the issues dealing with updated file extensions, were being dealt with by the Updating Working Group and needed further study.

TSMAD/4/8.7/rev.1

- 8.10 The proposal for an additional attribute “UPDATE” requires careful consideration for the next major edition of S 57.

TSMAD/4/8.8

- 8.13 The proposal for an additional attribute value for “ARCHIPELAGO” for CATSEA requires further study. The entire list of CATSEA values should be revised for the next major edition.

TSMAD/4/10.1C

- 10.1 The proposals concerning the future evolution of S-57 in light of the standards development processes taking place within the ISO/TC211, need further study. TSMADGW to solicit expert advice.

TSMAD/4/14.3

- 14.1 It was decided that the issues dealing with Archipelagic Sea Lanes (TSMAD/4/14.3) required further investigation.

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**Deferred Actions from TSMAD/5 – Wollongong, Australia (4-7 April 2000).**

#### TSMAD/5/5.5

- 5.5 It was decided that the UK paper (TSMAD/5/5.5) should be deferred for consideration at a later TSMAD meeting.

#### TSMAD/5/5.6

- 5.6.2 Clauses 2.2.7. and 5.3. It was decided that any proposed changes dealing with references to “must” should be postponed until the revision of the USOC concerning this issue, had been completed.

#### TSMAD/5/14.1

- 15.1.3. It was decided that the proposal to add an attribute value to describe an approximate elevation, should be put on the Deferred Actions List.

- 15.1.3.3 The proposal to add a new attribute value for “building” to CATLMK was deferred.

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### **Deferred Actions from TSMAD/6 – IHB Monaco (18, 21, 22 September 2000).**

It was decided prior to the 6<sup>th</sup> TSMAD meeting, that only issues that were of a strategic nature would be considered. As this meeting was held in conjunction with the C&SMWG and an Industry Liaison meeting, there was insufficient time to consider the national proposals and it was therefore agreed that these papers would be deferred to the next TSMAD meeting. The following proposals were deferred:

TSMAD/6/13.1A All proposals in this paper were deferred.

TSMAD/6/13.2A All proposals in this paper were deferred.

TSMAD/6/13.3A All proposals in this paper were deferred.

TSMAD/6/13.4A All proposals in this paper were deferred.

TSMAD/6/13.5A Only Item 2.1 was considered by the meeting. (See TSMAD/6 minutes 13.5)

TSMAD/6/13.6A Only Items 2 and 4 were considered by the meeting. (See TSMAD/6 minutes 13.6).

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### **Deferred Actions from TSMAD/7 – IHB Monaco (23 – 27 April 2001).**

TSMAD7/7.3 Item 3.1 proposing to add a new attribute value 11 - catenary anchor leg mooring (CALM) – for attribute CATOFP was deferred for further study.

TSMAD7/7.4 Item 2 Clause 3.5.2 Proposal to change mandatory attribute for VALLMA, was deferred.

Code 107 – LITCHR – Light characteristic – proposal to change terminology for attribute values 4,5 and 6 was deferred.

Item 3 Proposed extensions for CATSEA – Strait and Gut – deferred.  
Proposed extensions for FUNCTN Pier Head, Support, Breakwater-  
deferred

TSMAD7/7.5 Proposal 6 dealing with ENC Product Specification Section 5.6.2 – deferred.

TSMAD7/7.7 The following proposals were deferred:

Objects: 1.7b-ANCHARE, 1.12 - BCNSPP, 1.17-BUISGL, 1.24 - BOYSPP, 1.27 -  
CBLSUB, 1.39 - COALNE, 1.47 - DAMCON, 1.65 - FAIRWY, 1.95 - LNDMRK, 1.103  
- MAGVAR, 1.110 - NAVLNE, 1.134 - RAILWY, 1.138 - RECTRC, 1.141 - RESARE,  
1.158 - 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,

Item 1.4

Product Specification: 10.1 Leading, clearing and transit lines and recommended  
tracks.

3.5.2. Mandatory Attributes – The proposal to add a paragraph after table 3.2 in the  
ENC Product Specification was deferred. All proposed changes to the ENC  
Validation Check will be dealt with after the completion of the UOC review.  
(TSMAD/7/7)

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#### Deferred Actions from TSMAD/8 – SAN HO Cape Town South Africa (3 – 7 December 2001).

TSMAD8/9.3 14. Appendix B.1 Annex A 4.7.6 Amend the second bullet to read:

“If the river is not navigable at compilation scale it must be encoded as a **RIVERS**  
with a **LNDARE** or **UNSARE** underneath. The name of the river may be encoded  
using OBJNAM.”

15. Appendix B.1 Annex. First section of 4.8.12: “At large scale ...” . Australia does  
not support the option that a C\_ASSO may also be encoded. We understand clause  
15 to imply that a C\_AGGR would be more applicable if a collection object is  
encoded. It is therefore proposed that C\_ASSO be altered to C\_AGGR in the above  
section.

16. Appendix B.1 Annex A 7.1 - No mention is made of issues relating to Appendix  
B.1 Annex C Check numbers 1671 and 1672.

18. Appendix B.1 Annex C - Check s 1730-1734 and 1737-1742 could be  
amalgamated into one check 1730.



19. Appendix B.1 Annex A – 12.8.1 SIGSEQ should also be prohibited for fixed lights.

20. Appendix B.1 Annex C – Check 1752 SIGSEQ should also be prohibited for fixed lights, add to check.

21. Appendix B.1 Annex A Section 2.3. - Add the following sentence to second last paragraph after “ ... give more detailed information.” Up to 300 charters may be included in the string.

24. Appendix B.1 Annex A. Add paragraph about the implications of not closely following the encoding rules in this document.

25. Appendix B.1 Annex A. Review linear depth areas to be reviewed for a future edition of this document.

26. Appendix B.1 Annex A. Investigate how TXTDSC and INFORM attributes can point to a spatial location within an ENC.

27. Appendix B.1 Annex A. Provide further guidance on the use of SCAMIN and its relation to display scale.

28. Appendix B.1 Annex A. Sections 6.2.2 and 11.9.1. Add a new section on ECDIS alarms under obstructions and then cross reference 11.9.1 back to this clause 6.2.2. (See 8.Co.4).

35. Appendix B.1 Annex A. New clause for DATEND, DATSTA, PEREND, PERSTA with an explanation on encoding, cross reference to clause 6.6.

TSMAD8/9.4

3. Appendix B.1 Annex C. Amend check no 48 to: “Check for any M\_SREL objects having SCVAL1 and SCVAL2 encoded that the value of SCVAL1 **has been set to a larger scale than** SCVAL2.”

4. Appendix B.1 Annex C. Amend check no. 541 to: “Check that SIGGRP **format** is correct for all LIGHTS, except for fixed LIGHTS, which must not have a value for SIGGRP.”

5. Appendix B.1 Annex C. Add a new check to section 2.2 relating to ENC Product Specification: Check that M\_COVR meta objects provide exhaustive non-overlapping coverage of the whole cell.

6. Appendix B.1 Annex C. Add a new check to section 2.2 relating to ENC Product Specification: Check that M\_QUAL meta objects provide exhaustive, non-overlapping coverage of those areas covered by M\_COVR objects, with CATCOV=1

67. Appendix B.1 Annex C. Amend check no. 1672 to: “Check for **the occurrence of** any point object lying inside an area object of the same class and attribute values, **except for WRECKS and OBSTRN objects.**”

78. Appendix B.1 Annex C. Amend check no. 1752 to: Check that no LIGHTS object with a value of (1) [fixed] for LITCHR contains the attribute SIGGRP, SIGPER **and SIGSEQ**

89. Appendix B.1 Annex C. Review and amend the tables for checks 1657, 1663 & 1669.

TSMAD8/9.5 1. Appendix B.1 Annex C Add new check. Check for any UWTROC having the value (1) or nothing for EXPSON that any depth value is situated within a DEPARE of the corresponding range.

2. Appendix B.1 Annex C Change status of check 1565 from Error to Warning.

TSMAD8/9.6A 1. Appendix B.1 Annex A. Add remark to clause 2.2.3.1.

POSACC on the meta object M\_QUAL applies to bathymetric data situated in the area, while QUAPOS or POSACC on the associated spatial objects qualifies the location of the **M\_QUAL** object itself. (No 5).

2. Appendix B.1 Annex A. Add remark to clause 2.2.3.2.

QUAPOS on the meta object M\_SREL applies to bathymetric data situated in the area, while QUAPOS or POSACC on the associated spatial object qualifies the location of the **M\_SREL** object itself. (No 6).

3. Appendix B.1 Annex A. Add remark to clause 2.2.4.1.

POSACC on the meta object M\_ACCY applies to non bathymetric data situated within the area, while QUAPOS or POSACC on the associated spatial object qualifies the location of the **M\_ACCY** object itself. (No 7).

4. Appendix B.1 Annex C. Add new check:

Check that M\_QUAL meta objects provide exhaustive, non overlapping coverage of those areas covered by DEPARE and DRGARE objects. (No 8).

5. Appendix B.1 Annex C. Add new check:

Check that the order of data in each base or update file is in accordance with Appendix B.1 clause 6.1.1. (No 9).

6. Appendix B.1 Annex C. Remove check 1509. This check is redundant and is not complete. One individual check already exists for each object class to test prohibited attributes (see checks 1639, 1640, 1647...). (No 10).

7. Appendix B.1 Annex C. Add new check:

Check that all the pointers of any collection object in a cell reference objects that exist in this cell. (No 11).

TSMAD8/9.9 1. Appendix B.1 Annex C. Add LNDARE object to the list for check 1559 (No3)

2. Appendix B.1 Annex C. Add the value 4 (covers and uncovers) to WATLEV for check 61. (No 5)

3. Appendix B.1 Annex C. Add the value 1 (partly submerged at high water) against the HEIGHT attribute and update check 1663 accordingly. (No 6)

4. Appendix B.1 Annex A Section 12.1.2 Based on the IHO definitions, substitute navigational aid for aids to navigation. (No8)

TSMAD11/9.1 Additional attributes required for HRBFAC (See TSMAD11-9-1\_Netherlands\_AandB)  
Part A for inclusion in Registry – Part B for inclusion in Edition 4 ENC Prod Spec.