

MINUTES OF THE 11th TSMAD WORKING GROUP MEETING
11 – 12 November 2004, IHB, Monaco

Attachments

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

1. Opening and Administrative Arrangements

1.1 The president of the IHB, Vice Admiral Maratos, welcomed members of the TSMAD WG and its Sub Working Group on extending S-57, to Monaco and the IHB. He noted that there was a growing interest in the new S-57 development work, and recommended that TSMAD needed to find ways to inform Member States of what the new edition of S-57 will contain.

1.2 He noted that there were two areas that were of particular importance.

1.2.1 S-57 Edition 4 development. TSMAD needs to provide a clear picture of what is being planned for ENC production for both the present and future developments. He noted that there is some concern and confusion regarding Ed. 3.1 and Ed. 4 ENC Product Specification. He requested that a Circular Letter needs to be sent to MS to inform and clarify the situation.

1.2.2 NATO DIGEST – IHO S-57 alignment. Considerable interest has been expressed by senior military officers concerning the ongoing harmonization efforts between these two standards. (In particular, the compatibility between AMLs and Tactical Ocean Data (TODs)). He mentioned some pilot projects that are being planned for new surveys, and for producing new paper charts and ENCs/DNCs (Albania, Med Sea, etc.).

2. Approval of Agenda

2.1 The annotated agenda (TSMAD11_2_Agenda_Rev7) was approved with minor amendments.

3. Approval of the 10th TSMADWG Minutes (TSMAD11_TS10_Minutes)

3.1 The minutes were approved.

4. Action Items arising from the minutes of the 10th TSMAD meeting.

4.1 Action Item at 4.5. UK announced that the web version of S-57 Appendix D, will be released soon - (next 2 to 3 weeks). (This is the final appendix of S-57 E3.1)

4.2 Action item at 4.9. Test Data Set is not yet complete. Australia noted that a new paper version of Micklefirth was being produced by the CSPCWG, and questioned whether TSMAD should wait for this to be completed before continuing.

4.3 Action item at 6.2 – this had already been done in a previous CL. – done.

4.4 Action item at 6.3 – done.

- 4.5 Action item at 7.1 – done.
- 4.6 Action item at 8.1.7 – done.
- 4.7 Action item at 8.1.8 – done.
- 4.8 Action item at 8.3.1 – done.
- 4.9 Action item at 8.4.1 – done
- 4.10 Action item at 8.5.1 – done.
- 4.11 Action item at 9.3.1.2 - done
- 4.12 Action item at 9.3.1.3 - done
- 4.13 Action item at 9.3.1.4 - done
- 4.14 Action item at 9.4.1 – done.
- 4.15 Action item at 9.4.1.2 – done.
- 4.16 Action item at 9.4.1.3 - ESSA, PSSA - Needs to be completed – prepare report and then put on bulletin board.
- 4.17 Action item at 9.4.1.5 – Fairways – no formal proposal yet – will get a formal proposal from the next CSPCWG meeting.
- 4.18 Action items at 9.5.1 - WI 2.9, draft version available - to be completed during the meeting -done.
- 4.19 Actions item at 9.6.1, 9.7.2, 9.9.1 and 10.2 – done.

5. CHRIS 16 – Ottawa (Canada) (Agenda 5.2)

5.1 (TSMAD11 agenda item 5.1) The chairman outlined the presentation that he had made to the CHRIS 16 meeting, noting that he had reported on the progress and work program of the TSMAD and the Sub WG on S-57 extensions. He also presented the ENC consistency document, and noted that a few members had questioned the use of radar range for determining compilation scale. This document was approved by CHRIS and was distributed with IHO CL 47/2004.

5.2 CHRIS 16 also tasked the TSMAD chairman to produce a short paper to describe the options available for the ENC Product Specification under Edition 4. A draft version had been produced and was made available as TSMAD11_5-3_ENC_PS_Options. **Action: The chairman requested members to take this as an information paper, and provide him with any feedback within two weeks.**

5.3 CHRIS 16 requested TSMAD to investigate any additional requirement for S-57 to support a “print-on-demand” capability. This is primarily the inclusion of additional metadata needed for the printing process that goes beyond the exchange of digital reprostat that is already part of WI 2.9. CARIS noted that some work had been done on this within WI 2.9, however additional work would be necessary. **Action: Include Print-On-Demand (POD) file transfer requirements in WI 2.9, “Paper Chart Product Specification.”**

5.4 CHRIS 16 requested that the Open ECDIS Board of Patrons, approach the IHB for funding to contribute towards the continued maintenance of this service. Lee Alexander noted that, to date, the OEF had been provided as a free service, however with the ever increasing requirement to counter spam, viruses and other pests, it now needed modest resources to support its continuance. Dr. Alexander also noted that he met with IHB during

the TSMAD11 meeting and arrangements are being made for IHB to support the Open ECDIS Forum.

5.5 The document outlining the format for submitting papers to CHRIS and its subsidiary working groups was noted, and the chairman requested that this document be taken into account when the forms for submitting proposals for new features and attributes was being developed.

6. Report from the S-57 Edition 4.0 Extensions Sub Working Group

6.1 The chairman of the Sub WG on S-57, provided a brief presentation on the activities of the previous three days. He noted that the work schedule had been updated and would be placed on the development web pages – accessible from the TSMAD Sub WG web page. Most of the activities during the Sub WG meeting had focused on metadata (WI 2.5), the Primer document (proposed IHO CL) and the Registry (WI 2.1).

6.2.1 7Cs provided a brief outline on the roles and responsibilities of the various bodies associated with the registry. It was proposed that the IHB should be the register manager (After later discussion however, it was noted that this may require significant IHB manpower resources, and as this task could be carried out remotely via a web interface, it could equally be undertaken by a member state). **Action: members to discuss with their parent organisations, and report to the next meeting, whether they are able to take on the role of Register Manager.**

6.2.2 The proposal for making submissions to the S-57 register was further discussed and the meeting concluded that a document outlining the process to be followed should be developed. A synopsis of this process is as follows:

6.2.2.1 Proposals will be made via a controlling body (a member state in the case of the S-57 register), and will be sent to the register manager. The register manager will forward the proposal to other register managers to allow them to determine if the proposal is a “better fit” in one of the other registers– 2 week response time. If the proposal is to proceed in the Hydrographic (S-57) register, the register manager enters it into the register with a “not valid” status and initiates a discussion on the register discussion forum. The control body (TSMAD for S-57) reaches conclusion using the discussion forum, moderated by the register manager. (Time for discussion 30 days, but can be extended by another 30 days if necessary). If the consensus is “yes”, then the status of the new item will be changed to “valid”. If not accepted, then the status is changed to “retired” and the proposal submitter will be notified. If no consensus, then the proposal will be deferred to next TSMAD meeting for discussion.

6.2.3 South Africa requested that the document outlining this procedure be sent to all member states so that it can be made freely available from their web sites.

6.2.4 Paul Birkel requested clarification on the activity to review (and clean up) the content of the registry. This was a task requested at the 6th TSMAD Sub WG meeting. Who is going to do this, and what process will be used to validate the content? He also noted that the WI 2.1 needed to get the authoritative list of Inland ECDIS features and attributes. **Action: Holger Bothien to provide Paul Birkel with this list.** He also reminded the meeting that at the 6th sub WG meeting, it had been decided that edition 3.0 features and attributes would be maintained in the HFDD, but requested clarification on what would happen about version 2.0 features/attributes (retired or superseded?). It was agreed that features and attributes

from version 2.0 would be retained in the FDD **Action: Barrie Greenslade and Paul Birkel need to investigate whether they should be retired or superseded**

6.2.5 Paul Birkel noted that the list of ICE objects that he had received from Doug O'Brien did not match the list on the OEF. Holger Bothien explained that the Doug O'Brien list had been provided by the ICE Committee, and was the correct one. This list did not however contain any code lists, so this information would have to be obtained from the OEF list.

7. Reports from other working groups.

7.1 Report from the Standardization of Nautical Publications Working Group. The chairman of this WG Johannes Melles (Germany) provided a brief outline of SNPWG meeting which took place in June at Silver Spring USA. He noted that the SNPWG will be using UML to model their nautical publications information. The WG had also investigated how GML can be used to integrate nautical pubs with ENC data. A goal of the SNPWG is to sort out the information overlap between ENC and nautical publications data so as to minimize data redundancy.

7.2 The chairman presented an email from Mike Bisset, requesting the WG to encourage OEMs not to use the full validation list for reporting errors when loading ENC into their ECDIS systems. He noted that many of the errors that were reported were incorrect and did not point to actual errors. The long list of errors generated by ECDIS systems was undermining user confidence in official data. Lee Alexander pointed out that ECDIS systems had to carry out some tests in order to satisfy type approval. The meeting concluded that TSMAD has no authority to inform OEMs how to configure their software; however this should be reported to CHRIS. **Action: The TSMAD chairman to report this to CHRIS chairman via email.**

7.3 Hydrographic Interoperability Harmonization Working Group. UKHO reported on the initial meeting of this group (Ottawa) which focused on the ENC/DNC harmonization report that had been produced by IDON. The WG had used the basic recommendation from this report to try and automate the conversion between ENC and DNC, and vice versa.

7.4 Report to TSMAD11 on CSPCWG1. Australia (Chris Roberts) reported that this group had been very active over the past 18 months, and had produced several new proposals which included wind and submarine turbines, ASLs, ESSAs and PSSAs. The group has also commenced a major review of M-4 Part B. He noted that Part B-100 will be issued by CL soon. Part B200 needs further review. Parts B300 and 400 will be reviewed next and may need changes in numbering, which will impact on the S-57 object catalogues, ENC Product Specification and the cross reference document. He also reported that a new version of INT 1 is due for release early next year (by the BSH).

8. ENC - FAQ and Recommended Practices

8.1 The chairman reported that he had been notified by Mike Bisset, that due to a change in position, he was no longer able to act as the coordinator of the ENC FAQ. The WG would therefore have to find a new coordinator. Australia (Jeff Wootton) volunteered to take over this task. The chairman noted that the WG was extremely grateful for the excellent contribution that Mike Bisset had made towards setting up and coordinating the ENC FAQ.

9. National Proposals

9.1 Netherlands proposals. It was agreed that these needed to be included in the deferred actions list. Part A will be included in the S57 register. Part B needs to be included in the Edition 4 product specification. **Action: Secretary to provide feedback to Netherlands.**

9.2 Proposal 9.2 UKHO. Submitted by UKHO on behalf of NGA. Kathy Jo Simmons (NGA) explained that the rationale for these proposals was to harmonize the DGIWG and S-57 registers (especially the definitions). Canada recommended that before any changes were made to the definitions, S32, "The Shorter Oxford Dictionary" and M4 should be consulted. NGA noted that Bowditch (Practical Navigator), NP-100, The Oxford Dictionary, M-4, and INT 1 had all been used for the compilation of these proposals.

9.2.1 After further discussion, it was decided that these proposals should be reformatted in order to divide it in to two groups, namely those proposals that impact on S-32 and those that impact on S-57. (To be submitted to the next meeting). Definitions that impact on S-32 will be sent onto the S-32 ad-hoc Working Group.

9.3 Australia (Chris Roberts) requested that proposals contained in TSMAD11_9-3_A_Intro and TSMAD11-9-3_BtoO, be considered for inclusion in the S-57 register.

9.3.1 Proposal B and C (ARCSLN and ASLXLN). These were provisionally accepted, however it was noted that they will need to be reviewed before they go into the register.

9.3.2 Proposal D (AUTHTY) was approved.

9.3.3 Proposal E (BCNGEN) was approved. (7Cs (Holger Bothien) noted that the new feature catalogue will not only bind features and attributes together, but will also specify what enumerate values will be used. This will require additional enumerates to be added to the FDD.

9.3.4 Proposal F (BCNSPP) was approved, however MARSYS should be removed.

9.3.5 Proposals G (BOYGEN), H (BOYSPP) and J (DRGARE) were accepted.

9.3.6 I (CATMAR), K (ESSARE), M (MARBDY) and N (STATUS) need further work and investigation. Lee Alexander proposed that these should be discussed by the MIO working group before a final decision is made. It was also agreed that a generic object should be created for maritime boundaries. **Action: Lee Alexander and Chris Roberts to identify all types of maritime boundaries and limits, included in hydrographic products. TSMAD members were also requested to develop lists of these types of environmental boundaries and limits in their own waters (CATMAR) and forward them to Chris Roberts for inclusion.**

9.3.7 Proposals L (LEGISN) and O (DRGARE) were withdrawn.

9.3.8 Proposal 9.3 Quality The proposal to add some information onto the Encoding Bulletin Board (EBB). The meeting concluded that this was not appropriate for inclusion in the FAQ or EBB, however it needed to be considered for the next edition of the ENC Product Specification.

10. Any Other Business

10.1 Ad-hoc group to update S-32 by reviewing the S-52 Glossary. A discussion about liaison between TSMAD and the S-32 revision ad-hoc working group was discussed during the resolution of the UKHO Proposals described above. The chair of the S-32 revision group Steve Shippman was invited in to the discussion and agreed that an effort to harmonize S-32 and S-57 was desirable. Australia (Chris Roberts) and USA (Julia Powell) volunteered to review S-57 definitions with respect to S-32 and liaise with the S-32 group.

10.1.1 MITRE (PB) requested clarification on the necessity to keep "Distinction" in the S-57 Registry. 7Cs noted that if kept in the registry, it would impose a large maintenance overhead. It was therefore decided to not show this information on the register web pages. **Action: UK (Barrie Greenslade) to remove "Distinction" from the register.** MITRE (Paul Birkel) reminded the meeting that there was an outstanding task for members of the WG to help with the review of the definitions in the FDD.

10.2 Requirement for an international exchange format for the exchange for tidal harmonic constants. The IHB noted that this had been submitted as an information paper. It was agreed that the paper needed further work, and the WG invited the Tidal Committee to submit a comprehensive proposal to the next TSMAD meeting.

10.3 Inland ENC Harmonization Group (North America - Europe) - Report of 2nd Meeting. Lee Alexander provided some background information about the Inland ECDIS activities, and their efforts to harmonize Inland ENC production. This community has developed a content specification for inland ENC and will be making a submission for the inclusion of items into the HFDD. This will include features such as riverbank and other features that are pertinent to their requirements.

10.4 Lee Alexander informed the working group that the original Primer document had undergone considerable work prior to the meeting by a small task group. He noted that the updated document would be distributed as widely as possible. (IHO web site, International Review, Distributed by CL, OEF and Hydro International). **Action: Lee Alexander and IHB.**

10.5 The Open ECDIS Forum (OEF). Lee Alexander noted that this paper, which outlined the present status of the OEF had been presented to the CHRIS 16 meeting. UK noted that the discussion forum had been used successfully over the past number of years, however in light of new technology, the OEF needed to be upgraded/improved. Paul Birkel noted that DGIWG were in the process of upgrading their discussion forum using open source SW. **Action: Paul Birkel to explore these options, and report to the New Hampshire meeting.** Lee Alexander noted that the IHB had agreed to provide financial support for the continued functioning of the OEF.

10.6. The need for an interim (minor) S-57 Edition. Australia noted that it had a requirement to be able to encode additional objects such as ESSAs, PSSAs and ASL, and proposed that an interim edition 3.2 should be considered in order to cater for these and other new objects. Germany noted that these types of features were regulatory in nature. He reminded the meeting that, according to the Maintenance Document, the only reason for having to produce a new edition of the Standard, was to make provision for a deficiency related to "safety of navigation". The chairman noted that any new edition, no matter how minor the changes, had large repercussions for ECDIS manufacturers. The meeting subsequently decided that ASLs did not involve safety to navigation and that to issue a

minor new edition (3.2), followed shortly by a major new edition (4.0) would be extremely disruptive for the ENC/ECDIS community and should not be considered further.

10.6.1 UK stressed that the success of edition 4 largely depended on input from industry, and suggested that a discussion forum should be established to facilitate industries involvement and testing of edition 4 and its dependant product specifications. **Action: Barrie Greenslade to encourage industry participation and the development of testbed projects.**

10.6.2 Advice regarding the encoding of ESSAs, PSSAs and ASL – TSMAD had previously approved ESSAs and PSSAs being encoded as **RESARE** with the appropriate CATREA and RESTRN and possibly OBJNAM (for PSSA). Australia made the proposal that the ASL axis line should be encoded as a narrow **ADMARE** for inclusion on the ENC Encoding Bulletin Board. The ESSA and PSSA proposals were accepted by the meeting and would be placed on the encoding bulletin board. The ASL proposal needed further review by the FAQ team and would be placed on the ENC FAQ page when consensus was reached. It was also noted that IMO Areas to be avoided” – (**RESARE** with RESTRN =14) should be sent to the FAQ team for finalization, and then inserted into the FAQ page.

10.6.3 Julia Liebeskind noted that she would forward the draft document outlining the procedures for making submissions to register managers, to the IHB, for inclusion on the development pages.

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11. Date and Venue of next meeting.

11.1 It was agreed that the next TSMAD meeting should take place during October/November 2005. Venue – possibly New Zealand or Venezuela. IHB to follow up.

Annex A

List of Documents

No	Document	Description
	TSMAD11_Logistics	Logistic Information for the Meeting.
1A	TSMAD11_Documents	List of Meeting Documents.
1B	TSMAD11_Participants	List of Participants (Not yet available)
2	TSMAD11_Agenda	Meeting Agenda.
3A	TSMAD11_3A_Minutes	Minutes of the TSMAD 10 Meeting.
3B	TSMAD11_3B_Actions	List of Actions arising from the TSMAD 10 meeting.
5.2	TSMAD11_5-2_CHRIS_Format	New CHRIS format for the submission of proposals.
7.3	TSMAD11_7-3_HIHWG_Report	Hydrographic Interoperability Harmonization Working Group (HIHWG) 2004 Liaison Report.
9.1	TSMAD11-9-1_Netherlands_AandB	Netherlands Proposal.
9.2	TSMAD11-9-2_UKHO_AtoT	UK Proposal
9.3A	TSMAD11-9-3_A_Intro	Australian Proposal -Introduction
9.3B	TSMAD11-9-3_BtoO	Australian Proposals B to O (.zip format).
9.3C	TSMAD11_9-3_Quality	Proposal for Addition to an Existing Work Item - Quality of Data (M_QUAL)
10.2	TSMAD11_9-2TidalHarmonics	International Exchange Format for Harmonic Constants
10.3	TSMAD11_10-3_Inland_ENC	Inland ENC Development and Standardization
10.4	TSMAD11_10-4_S57_Primer	The Next Edition of IHO S-57 (4.0) - Primer
10.5	TSMAD11_10-5_OEF	Report on Open ECDIS Forum (OEF) Activities

Annex B

PROVISIONAL AGENDA (11th of November 2004)

1. **Opening and Administrative Arrangements**
 - 1.1 List of Documents (*TSMAD11_1-1_Docs*)
 - 1.2 List of Participants (*TSMAD11_1-2_Participants*)
2. **Approval of Agenda** (*TSMAD11_2_Agenda*)
3. **Minutes of the 10th TSMAD Meeting, 1- 3 December 2003, Wollongong, Australia.**
(*TSMAD11_3A_Minutes*), (*TSMAD11_3B_Actions*).
4. **Matters arising.**
5. **CHRIS 16 – Ottawa (Canada)**
 - 5.1 Report on CHRIS 16 by TSMAD Chairman, including relevant action items.
 - 5.2 Format for the submission of proposals (CHRIS 15). (*TSMAD11_5-2_CHRIS_Format*)
 - 5.3 ENC Product Specification – Options (*TSMAD11_5-3_ENC_PS_Options*)
6. **Report form S-57 Edition 4.0 Extensions sub Working Group.**
 - 6.1 S-57 Registry – presentation and discussion on TSMAD maintenance and administrative role.
7. **Reports from other IHO Working Groups**
 - 7.1 Report form the Standardization of Nautical Publications Working Group.
 - 7.2 Report from the IC-ENC Technical Experts Working Group (TEWG) including feedback regarding their action item 4.6 (**ACTION 4.6:** *IC-ENC to make contact with the Chairs of the C&SMWG and TSMAD to raise the issue of ECDIS unnecessarily displaying error messages and to seek their assistance in influencing OEMs to realise that thorough data validation checks have already been carried out by HOs/RENCs and do not need to be repeated at ECDIS loading stage.*)
 - 7.3 Hydrographic Interoperability Harmonization Working Group (HIHWG) 2004 Liaison Report. (*TSMAD11_7-3_HIHWG_Report*).
 - 7.4 Report to TSMAD11 on CSPCWG1 (3-5 Nov 04) (*TSMAD11_7-4_CSPCWGReport*)
8. **ENC - FAQ and Recommended Practices.**
9. **Proposals**
 - 9.1 Netherlands Proposal (*TSMAD11_9-1_AandB*).
 - 9.2 UK Proposal (*TSMAD11_9-2_AtoT*).
 - 9.3 Australia (*TSMAD11_9-3_A_Into*), (*TSMAD11-9-3_BtoO*) and (*TSMAD11_9-3_Quality*)
10. **Any Other Business.**
 - 10.1 Ad-hoc group to update S-32 by reviewing the S-52 Glossary – should also include S-57. Proposed that a TSMAD liaison person participate to harmonize the review and adoption of new definitions for S-57 E4. (*Australia – no paper*).
 - 10.2 Request from IHO Tidal committee for an “International Exchange Format for Harmonic Constants” (*TSMAD11_10-2TidalHarmonic*)
 - 10.3 Inland ENC Harmonization Group (North America- Europe) - Report of 2nd Meeting (22-24 Sep 04) (*TSMAD11_10-3_Inland_ENC*)
 - 10.4 S-57 Ed. 4 Primer (*TSMAD11_10-4_S57_Primer*)
 - 10.5 Report on OEF Activities (will be the report given at CHRIS 16) (*TSMAD/11_10-5_OEF*)
11. **Date and place of next meeting**
 - * **Late submissions – to be considered during Agenda item 10**

**TSMAD/11 Meeting
IHB, Monaco, 8-12 November 2004**

List of Participants

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Appendix C

CUMULATIVE DEFERRED ACTION LIST

October 2003

At the 4th 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). 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.

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.

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

It was decided prior to the 6th 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).

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)

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 characters 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 UWTRC having the value (1) or nothing for EXPSCOU that any depth value is situated within a DEPART 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 DEPART and DRGARE objects. (No 8).

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

Check that the order of data in each base or updatefile 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)

