**Report of AIS TECHNICAL WORKING GROUP of the IALA e-NAV Committee**

11th Intersessional meeting held 4-8 July 2011, in Koblenz, Germany

1. **Introduction**

The AIS Technical Working Group (TWG) of the IALA e-NAV Committee held an intersessional meeting in Koblenz, Germany, from 4 to 8 July 2011, hosted by German Federal Waterways and Shipping Administrations, Traffic Technology Center. The venue was Hotel Contel, Koblenz, except for one day, when the meeting was held on the ship “Mainz” and combined with a technical tour to the VTS Centre in Oberwesel. The group was welcomed to Koblenz by Mr Rainer Strenge, Head of Traffic Technologies Centre, who wished the group a successful meeting and a pleasant stay in Koblenz.

The chair of the meeting was Mr. Rolf Zetterberg and the vice chair was Mr. Jorge Arroyo.

The main objectives of the meeting was to continue the work started at previous meetings with the revision of IALA documents A-124 , amend the Technical Clarifications to ITU-R M.1371-4 and continue the work on a document with recommendation on the Harmonised Implementation of Application Specific Messages (ASM), with regard to IMO SN.1/Circ. 289 and regional/local messages.

1. **Progress made**

**3.1 Revision of A-124**

The continued work on A 124 was discussed and it was agreed that the prioritized parts of the document should be submitted to eNAV10 for approval, but the Annexes 18 and 19 should first be distributed within the TWG for comments and approval by correspondence.

Annex1 – Basic AIS services, Data model & AIS Specific MDEF sentences was updated in accordance with latest developments at e-Navigation. The document was approved by the TWG.

Annex 18 – VDL Loading was thoroughly considered and edited based on the input documents 11 and 12.

Annex 19 – Satellite AIS Considerations*.* The first draft, Input 13, was reviewed and amended.

It has earlier been agreed that Annex 17 should be progressed ”of line” and distributed to the TWG for comments and approval by correspondence and then forwarded as inputs to e-NAV10.

The time schedule for the correspondence approval process is:

2011-07-15 All documents distributed to the TWG

2011-08-01 Comments within the TWG

2011-08-15 Consolidated version of documents distributed within the TWG

Approval by silent process

2011-08-30 Documents to IALA secretariat as input to e-NAV9.

***Action items:***

* ***Mr. Jean-Francois Coutu*** *is asked to work with* ***Ross Norsworthy*** *to finish Annex 17.*
* *The* ***chair of the TWG*** *is asked to distribute all edited documents of A-124 for review and comments to the TWG.*
* *The* ***chair of the TWG*** *is further asked to submit the resulting documents, together with the parts of A 124 which have been completed earlier to the secretariat as the Draft A124 Edition 2.0 as input to eNAV10.*

**3.2 Application Specific Messages**

The TWG continued the work on the Draft Guideline on the Harmonised Implementation of ASM*.*

***Action items***

* *The* ***Chair of the TWG*** *is asked to forward the draft IALA Guideline on implementation of ASM to the next IALA AIS TWG intersessional meeting for further development*
* ***Members of the TWG*** *are asked to review the draft outline for the draft IALA Guideline on implementation of application specific messages and provide comments / input to the next IALA AIS TWG intersessional*

A text describing the procedure for submitting material to the ASM collection organized by the administration of the Netherlands, was developed as requested by eNAV9.

***Action items***

* ***Jeffrey van Gils*** *was asked to liaise with the Technical Coordinator of IALA regarding the name of the collection and submit the document to Secretariat after any possible amendment*.

**3.3 Draft revision of ITU- R M.1371-4 ( Future 1371-5)**

In a liaison statement (eNAV9/9/2), ITU-R WP5Brequests that IALA draft a proposed revision to Recommendation ITU-R M.1371-4 with revision marks and submit this document for consideration to the next meeting of WP 5B. This work, which have been ongoing through several meetings, was now progressed and finalized. The proposed changes to 1371-1 include:

* Rule for valid MMSI, or unique identifier, based on Station Type
* Support for Message 27:
  + rules for transmission, Multi-Channel Slot Selection Access (MSSA), and
  + control by a base station using MSG 23 with Station Type 10 and MSG 4
* Support for Class B SO
  + Reporting interval
  + Power levels
  + Receiver requirements
* Remove reference to duplex repeater
* Remove repeater delay bits in buffer and increased distance delay bits
* Channel management clarifications
  + Clarified rules for saving regions in the AIS station from oldest to most distant
  + Decreased active time for a region from 5 weeks to 24 hours
  + A base station will not respond to reception of a Message 22 or DSC
  + Clarification for the use of DSC for channel management the command should end with EOS or RQ
  + Clarifications for Message 22 regarding:
    - the resolution of LAT/LON, when provided by the ACA sentence, can be more accurate than what Message 22 can broadcast and the additional resolution will be truncated;
    - Class B CS units may only be operational in the upper half of the maritime band;
    - narrow band channel management is no longer supported
* Class B CS must verify 120nm for FATDMA reservations and Message 23 group assignment but not for Message 22
* Remove narrow bandwidth and duplex channels (allow simplex operation on duplex channels)
* Removed dependency on Message 5 transmission for Message 3 transmission interval
* Removed requirement for “not under command” and “aground” to be a 3 minute interval
* Clarified use of 5 consecutive slots only allowed when using FATDMA reserved slots otherwise maximum number of consecutive slots will be 3
* Defined AIS version indicator = 2 to reflect compliance to 1371-5; New version is necessary to reflect compliance to changes in channel management, the 120 NM rule, and removing support to narrow band and duplex channel operation.
* Clarification for the IMO number field to 7 digits for an IMO number and allow for official flag state numbers greater than 7 digits;
* Clarification in Call Sign to allow for craft associated with parent vessels such that the Call Sign will be “A” and last 6 digits of the parent MMSI;
* Clarification for Message 15 to reflect the allowed interrogation for Message 24.
* Message 23 clarified to indicate that “next shorter” and “next longer” reporting interval is relative to the current operational mode.
* Clarification on what stations should report both Message 24 A and B.
* Corrected byte alignment issues for Message 25 and 26.

***Action items:***

* *The C****hair of the TWG*** *is asked to distribute the Draft revision of ITU-R M1371-4and Liaison statement to ITU to the secretariat as inputs to eNAV10.*

**3.4 Liaison from IEC**

A draft answer on the Liaison “Request for technical clarifications on ITU-R M.1371-4” (Input document 4) was developed, answering all questions in accordance with the Draft Revision of 1371-4 (item 3.3 above). However, the liaison from IEC also concerns position accuracy issues, which preferably are answered in co-operation with WG 2.

* ***The chair of the TWG*** *is asked to forward the document to the secretariat as an input to eNAV10*
* ***The chair of the TWG*** *is asked to liaise with the chair of WG2 asking WG2 to review the answer to IEC.*

**3.5 Liaison note to ANM**

The TWG, after recently having updated Recommendation A 126 on AIS AtoN, noted that Recommendation O-139 on Marking of Man Made Offshore Structures might need to be updated in line with recent developments- A liaison note to the ANM Committee was developed.

* ***The chair of the TWG*** *is asked to forward the document to the secretariat as an input to e-NAV10*

**3.6 Innovative use of AIS**

It has been observed by several members of the TWG that a number of new, innovative ways to use AIS have been proposed or tested. This might be very useful but are not covered by existing standards and recommendation. Different ways to handle this was discussed but the work must continue.

1. **Next Meeting**

The next meeting will take place during eNav10 in St Germain an Laye, September 26 – October 1, 2011. A possible intersessonal meeting is planned for 9-13 January 2012, venue TBD.

1. **The Final Plenary**

This report was considered, amended and accepted as representing the actual progress made and the results of the meeting in Koblenz, Germany.

The chair thanked Federal Waterways Maritime and Shipping Administrations for hosting the meeting and organizing the Technical Tour. The chair also thanked all participants for their attendance and contributions to the discussions and wished everybody a safe journey home.

**Rolf Zetterberg**

Chair AIS Technical Working Group of IALA e-NAV Committee**.**

**Annex A:**

**Participation.**

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| --- | --- | --- |
| **Name** | **Organization** | **Country** |
| Arroyo, Jorge  Vice chair AIS TWG | USCG | USA |
| Bober, Stefan | Federal Waterways and Shipping Adm | Germany |
| Browning, Peggy | exactEarth | USA |
| Card, Michael | Zeni Lite Buoy Co | Japan |
| Dominguez, Alfredo | Tideland Signal Corp | USA |
| Gils, Jeffrey | Rijkswaterstaat SVC | Netherlands |
| Oltmann Jan Hendrik | Federal Waterways and Shipping Adm | Germany |
| Martin, David | exactEarth | Canada |
| Miyadera Yoshio | Japan Radio Company | Japan |
| Rissone, Christian | ANFR | ITU |
| Tetreault, Brian | US Army Corps of Engineers | USA |
| Wootton Richard | MCA | UK |
| Zetterberg, Rolf chair AIS TWG | SMA | Sweden |
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**Appologies**

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| **Name** | **Organization** | **Country** |
| Carson-Jackson, Jillian | AMSA | Australia |
| Cotu, Jean Francois | Canadian Cost Guard | Canada |
| Ellissen, Cato | Kongsberg | Norway |
| Furyama, Kenji | JRC | Japan |
| Jensen, Jens Kristian | Danish Maritime Safety Administration | Denmark |
| Hill, Stephen | AMS | Australia |
| Nyberg, Magnus | Pharos Marine | Sweden |
| Schultz, Johnny | L3 Communications | USA |
| Tremlett, Robert | exactEarth | Belgium |
| Yauchi, Takamasa | Oki Consulting Solutions | Japan |

**Annex B.**

**Input Documents**

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| **INPUT DOCUMENTS** | **Title** |
| 01 | Invitation – Meeting Information |
| 02 | Preliminary agenda |
| 03 | List of Documents |
| 04 | Liaison note from IEC TC80 regarding 1371 |
| 05 | Comments on WD 12 Melbourne Draft revision of Rec 1371-4 11-02-2011 |
| 06 | JHO introduction regarding UMDM |
| 07 | eNAV9 Output 3 eNav Picture Book |
| 08 | eNAV9-WG5 Liason note |
| 09 | Andy Norris e-Navigation vision |
| 10 | IHO-IALA meeting report |
| 11 | Draft A124 A18 from JFC |
| 12 | Comments on A124 A18 from JKJ |
| 13 | Draft A124 A19 from Peggy |
| 14 | Draft manual on ASM Collection |
| 15 | ITU WP 5B Liason on spectrum issues |
| 16 | ITU WP 5B Liaison on Tx power |
| 17 | AIS AtoN Controller |
| 18 | Suggested new work items for AIS TWG |
| 19 | ITU WP 5B Liaison to CIRM Identities for AIS-SART, MOB and EPIRB-AIS |
| 20 | ITU WP 5B Draft revision to Rec ITU-R M.585-5 |
| 21 | ITU WP 5B Prel Draft new report on MOB system |
| 22 | Considerations for 1371-5 |
| 23 | Draft report NAV 57 |
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**Output documents**

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| **Output Document** | **Title** |
| 01 | Report of the meeting |
| 02 | Working Document Torwards a Preliminary Draft Revision of Rec ITU-R M.1371-4 |
| 03 | Liaison note to ITU |
| 04 | Liaison note to IEC |
| 05 | Liaison note to ANM |
| 06 | Draft Revision of A 124 Annex 1 |
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**Working Documents** (for next TWG meeting)

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| **Working Document** | **Title** |
| 01 | Draft IALA Recommendation on the Harmonised implementation of ASM |
| 02 | Draft A 124 Annex 18 VDL Loading Management |
| 03 | Draft A 124 Annex 19 AIS Satellite Considerations |
| 04 | Proposed prioritization of the work on A 124 Ed 2 2011-07-08 |
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