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# INTERNATIONAL 30.05.2025

# *ITU*

# Report on ITU-R WP5B meeting 29 April to 8 May 2025

Note by the IALA representative Stefan Bober

#### INTRODUCTION

ITU-R Working Party 5B (WP 5B) - Maritime mobile service including Global Maritime Distress and Safety System (GMDSS); aeronautical mobile service and radiodetermination service - held its meetings from 29th April to 8th May 20245as physical meeting in Geneva. This was the third meeting in the study cycle 2023 to 2027. Mr. Stefan Bober represented IALA.

IALA has a specific interest in the maritime mobile service including the Global Maritime Distress and Safety System (GMDSS) and the radiodetermination service, with particular emphasis on the development of VHF Data Exchange System (VDES), Automatic Identification System (AIS), Autonomous Maritime Radio Devices (AMRD), VHF digital voice, VDES R-Mode and e-Navigation.

The meeting of the WP5B-3 maritime focussed on the revision of ITU Recommendations and the introduction of two ITU study questions, namely study questions on “VHF digital voice” and on “VDES R-Mode”. WP5B-3 maritime has no direct agenda item to prepare for WRC-27. However, WP5B-3 maritime is involved in several other agenda item at WRC-27, e.g. WRC-27 agenda item 1.12, current and future use of the 1645.5 -1646.5 MHz band.

#### issues related to IALA work addressed during ITU-R WP 5B

##### Revision of Recommendation ITU-R M.2092-1 VHF data exchange system – VDES

WP 5B continued to work on the revision of Recommendation ITU-R M.2092-1. The group reviewed two input documents from USA and Japan.

Some technical clarifications resulting from prototype testing and work at IEC, as well as some minor editorial corrections, were incorporated in the document. The technical clarifications include the deletion of the link ID MSC 6.50 and MSC 6.100 (multi carrier), the description of repeat indicator in ASM 0 has been aligned with all other ASMs, the ASM identifier is now part of the application data in all ASMs, the text for short data messages and data fragment has been clarified, a reference to the digital signature for the VDE TER bulletin board has been added, additional Link IDs for use on the RAC have been added, and new variable length uplink short data message for VDE SAT has been added.

A simplified VHF data exchange system (simplified VDES) has been introduced. The simplified VDES is a VDES mobile station with an average output power of up to 5 W and which includes the Class B AIS.

The status of the documents is a preliminary draft revision of Recommendation ITU-R M.2092-1 with the aim for completion by the end of 2025.

-> IALA is invited to review the document.

##### Revision of Recommendation ITU-R M.1371-5 Automatic Identification System - AIS

WP 5B continued its review on the revision of Recommendation ITU-R M.1371-5. The group reviewed input documents from IALA, USA, China, France and Germany.

The following topics were discussed: A description of AMRD Group B messages that can be received on channel 2006 was added to the document. The reporting interval for transmitting of information when the vessel is at anchor or moored but dragging anchor was defined (Table A1-1). Information about the crew status of the vessel, e.g. crew-operated, remotely operated or autonomous vessel, was introduced in message 1, 2, 3 (Table A7-3). Information on “materials hazardous only in bulk (MHB)” has been added to the “Type of ship” table (A7-8). The AtoN station type “mobile self-propelled AIS AtoN” has been deleted in Message 28 (Table A7-41). In the same message in Table A7-42 “Type of aids-to-navigation”, the code 39 “fishing apparatus” has been changed to “Navigation hazards” and codes 51 to 56 “Mobile AtoN: dynamic area markers” have been deleted.

The topic “Blockage of AIS signals caused by VHF radiotelephony” has been withdrawn, as the issue can be solved by filters, since it is no longer possible to switch channels on the AIS operating frequencies.

Editorial corrections have been made to the text and corrections to the figures, e.g. regarding slot access and candidate slots.

Note: IMO NCSR 12 agreed to include MHB to the table of type of ship but rejected the inclusion of crewing status. This decision should be made after the IMO MASS WG has completed its work.

-> IALA is invited to review the current draft document.

##### New Report ITU-R M. [VDES R-MODE] - Impact of the possible introduction of a range mode on the VHF data exchange system

WP 5B continued work on a new report on the impact of the possible introduction of a range mode in the VHF data exchange system. The aim of this report is to describe the impact of R-Mode VDES.

The changes include further details on the VDES R-Mode system, in particular the implementation of the physical layer, the addressing of the link layer, and the integration of authentication for a resilient alternative Positioning Navigation and Timing (PNT) solution within the VHF data exchange system.

-> IALA is invited to contribute to the development of this report.

##### Revision of Recommendation ITU-R M.585-9 Assignment and use of identities in the maritime mobile service

WP5B continued its work on the Recommendation ITU-R M.585-9. Several input documents were reviewed. The term “freeform maritime identity” was introduced in place of “freeform number identity”. A supplemental manufacturer ID information was introduced to resolve the issue of limited availability of manufacturer IDs for devices using a freeform maritime identity.

A 12-character identity, which also includes the supplemental manufacturer ID information, was introduced to identify AIS-SART, MOB-AIS and EPIRB-AIS as follows. For AIS message 1, the Source Id 9172T3X4X5Y9Y10Y11Y12 is used. For AIS message 14, the three alphanumeric characters M6P7P8 are appended to the end of the safety related text, together with a space. The three alphanumeric characters together with the Source Id form the identity 9172T3X4X5M6P7P8Y9Y10Y11Y12, where   
T3  = device type 0, 2 or 4 (0 stands for AIS-SART, 2 for MOB-AIS, 4 for EPIRB-AIS);   
X4X5 = manufacturer ID 01 to 99;   
M6 = supplementary manufacturer ID suffix; P7P8 = supplementary sequence number prefix; and   
Y9Y10Y11Y12 = the sequence number 0000 to 9999.

In section 4, the types of AIS AtoNs provided by the AIS Message 21 “Aids-to-Navigation Report and AIS” and Message 28 “Aids-to-Navigation Report (Single-slot message)” were introduced. The use of the sixth digit to distinguish between certain specific uses of the MMSI was clarified as optional.

A liaison statement was drafted to IEC TC 80 to inform IEC about the ITU’s work on the revisions to M.1371 and ITU-R M.585 on maritime identify of AIS AtoNs. IEC may consider this information in the future maintenance of standard IEC 62228.

The status of the document was upgraded to o preliminary draft revision for approval by SG5.

-> IALA is invited to note this information

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##### Revision of Recommendation ITU-R M.2010-2 (NAVDAT system in 500 kHz) and ITU-R M.2058-1 (NAVDAT HF)

WP 5B continued the revision of Recommendation ITU-R M.2010-1 and ITU-R M.2058-1. The proposed revision includes updates of references to IMO documents, clarification of pre-scan procedure, changes of the coding for broadcasting in selective area mode, and improvements to the LDPC codes.

The status of the document was upgraded to o preliminary draft revision.

##### Revisions of Recommendation ITU-R M.489-2 (VHF radiotelephone equipment)

WP 5B started the revision of Recommendation ITU-R M.489-2 “Technical characteristics of VHF radiotelephone equipment operating in the maritime mobile service in channels spaced by 25 kHz” to update the references to Radio Regulations and other ITU instruments in this recommendation.

##### 2.6. Revisions of Recommendation ITU-R M.1080 (Digital selective calling system DSC)

WP5B also started the revision of Recommendation ITU-R M.1080 “Digital selective calling system enhancement for multiple equipment installations” to update the requirements on the 10th digit for DSC audible alarms to avoid alarm on multiple radio installations.

##### Revision of Recommendation ITU-R M.2135-1 (AMRD)

WP 5B started the revision of revisions of Recommendation ITU-R M.2135-1 to update the recommendation on AMRD, including a newly added minimum operating duration for MOB device and the propulsion mode parameter for AMRD Group B.

##### Revisions of Report ITU-R M.2231-1 (Use of Appendix 18 to the Radio Regulations for the maritime mobile service)

WP 5B started the revision of the Report ITU-R M.2231-1 to update the Report on the use of Appendix 18, to include the revisions to Appendix 18 by WRC-15 and WRC-19, updating the table on frequency bands of Appendix 18 for maritime use and the corresponding explanations.

#### RELATED DOCUMENTS

* Preliminary draft revision of Recommendation ITU-R M.2092-1 (VDES)
* Preliminary draft revision of Recommendation ITU-R M.1371-5 (AIS)
* Preliminary draft revision of Recommendation ITU-R M.585-9 (maritime identities)
* WD towards new report on the impact of the possible introduction of a R-Mode on the VDES

#### IALA IS REQUESTED TO

* IALA is requested to note the report on ITU-R WP5B meeting and to act accordingly.