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| **Radiocommunication Study Groups** |  |
|  | ENAV22-9.5.1 |
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| Working Document towards a Draft revision Recommendation ITU-R M.1371-5 | |
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# 1 Introduction

This document proposed editorial changes and technical content to Recommendation ITU-R M.1371-5. These changes improve the readability of the document while also providing elements that will enhance the safety of navigation.

# 2 Summary of changes

Listed below are the proposed changes to Document 5B/411 (Annex 14) which contribute to the revision of Recommendation ITU-R M.1371-5:

1 Considering and recommends:

– The text has been modified to clarify the role of IALA and what it provides.

– A footnote has been added to reference to the IMO Safety of Navigation Circular, SN.1/Circ. 289.

2 Annex 1, section 2.1

– Improved the structure of this section by grouping all the location devices together.

3 Annex 1, section 2.1.1

– Modified the “IMO AIS carriage requirements” to “IMO AIS performance standard” which is the correct reference.

4 Annex 1, section 2.1.1.2

– Removed the word “technology” which is superfluous.

5 Annex 1, section 2.1.3

– Removed the reference to “limited base station”. This type of device has limited value, only contributes to the VDL traffic load, and after all these years has yet to be defined.

6 Annex 1, section 2.1.4

– Search and Rescue aircraft (SAR) should not transmit VDL Message 5 as many of the fields within this message are not relevant and is redundant when also transmitting VDL Message 24A and 24B.

– The default mode of operation for a SAR should be the silent mode.

7 Annex 1, section 2.1.8

– Added the option for an EPIRB to also transmit its 406 MHz Hex ID.

8 Annex 1, section 2.1.9

– Modified this section to introduce the definition of a dynamic position marker (DPM) in place of “AMRD which uses AIS technology”. AMRD is too broad of a device classification. All AIS devices could be categorized as “autonomous marine radio devices”. Removed references to “Group B” AMRD which were never intended to transmit on AIS 1 and 2.

9 Annex 1, section 2.1.2

– Added the Mobile AtoN to the list of defined AIS devices.

10 Annex 1, section 2.8

– The reference to the user ID formatting has been removed. This has been done for other references to MMSI formatting, and this one got missed. All references to station identity can be found in Recommendation ITU-R [M.585](https://www.itu.int/rec/R-REC-M.585/en).

11 Annex 1, section 4.2.1

– Added the application specific message to the reporting interval for completeness.

– Modified Table 1 to clarify the behavior of a ship which has a navigational status of “aground” or “undefined”.

– Added a new requirement for the reporting interval of ships which have not moved for a specified time to only transmit at a reporting interval of 3 minutes.

– Modified Table 2 to add a new requirement for Class B AIS to temporarily increase their reporting rate when changing course.

– Modified Table 2 to define the reporting interval for a aids to navigation which is moving at a speed greater than 2 knots

– Modified Table 2 to define the reporting interval for non-emergency location indicators under various conditions.

– Modified note 2 for Table 2 to clarify how a SAR could increase its reporting rate which maneuvering.

12 Annex 1, section 5

– Updated the channel designators for the long-range AIS to use the correct 4-digit format.

13 Annex 2, section 3.3.2

– Added a new mode of operation which is currently supported by the Class A equipment. This mode allows for the equipment to listen to the VDL, but not transmit any messages. A footnote referencing an IMO resolution that supports this change was added.

14 Annex 2, section 3.3.7.2.1 and 3.3.7.3.1.

– These sections have been modified to align with the changes already made to the message tables. The “user identifier” is not referred to as the “source identifier”. The missing clarification about the 10th digit for section 3.3.7.2.1 was added.

15 Annex 2, section 4.3.1.2

– Added Class B “SO” devices to this section.

– Changed the speed threshold from 5 knots to 2 knots when using COG for detecting course change. 2 knots should produce a stable COG measurement.

16 Annex 2, section 4.3.1.3

– Update the text to capture the modifications added to table 2.

17 Annex 2, section 4.3.2 and 4.4.2

– Added the qualifier “receiving” to the paragraph to be clear. Some AIS mobile stations are transmit only devices.

18 Annex 2, section 4.4

– Modified the text to be more generic with applying data link congestion resolution.

19 Annex 2, section 4.6

– Changed “repeater functionality” to “repeater station”. This language is consistent with reference to other devices and consistent with the equipment standard.

20 Annex 2, section 5.3.1

– Added text to clarify that address message should not be sent to transmit only devices.

21 Annex 3, section 1.1.

– Removed the sentence that requires the transponder to discard all received DSC message except for the channel management message. Being silent on this will allow for future devices to be capable of processing these messages if so desired.

22 Annex 5, Table 25, Table 26, Table 27, Table 28, Table 30, Table 31, Table 32, Table 33

– Modified the source and destination identifiers to be consistent with the other message descriptions in Annex 8.

23 Annex 7, section 3.5.1.1

– Removed “optional” from the Vendor ID. This information field needs to be required so that the details about the equipment can be accessed.

– Removed the note about defaulting the ship type of “pleasure craft”. Class B AIS devices are widely used by commercial vessels. The equipment standard defines the default behavior for all information fields.

24 Annex 8, section 3

Replaced “telegrams” with “messages” for clarity.

25 Annex 8, Table 46

Added the new electronic aids to navigation message to the table.

26 Annex 8, Table 48

– The navigational status value 9 and 10 were designate for “reserved for future amendment…” and attempted to designate a ship type. This use of navigational status does not seem appropriate. Modified the text to indicate that these are reserved for future use.

– Modified navigation status value 13 to be designated for regional use.

– Modified the text for some of the other navigational status values for clarity.

– Modified the time-stamp field value 63 to include the ability to report last know position when position system is inoperative.

– Proposes values for the extended capability of an AIS which could include VDES.

27 Annex 8, Table 51

– Added new values for the “Type of electronic position fixing device” to include PNT systems, inertial systems, and terrestrial systems.

28 Annex 8, section 3.3

– Removed the SAR aircraft from the description of the VDL Message 5. SAR aircraft should not transmit this message.

– Removed all reference to SAR aircraft from the Table 52.

29 Annex 8, Table 53

– Modified the ship type table to include additional ship types and included the ability to report the number of persons on the vessel in a predefined number of increments.

30 Annex 8, section 3.19

– The IALA Navguide stipulates: “A floating aid to navigation, which is out of position, adrift or during the night is unlighted, may itself become a danger to navigation. When a floating aid is out of position or malfunctioning, navigational warnings must be given.” Therefore, new text has been added to allow an AtoN to also transmit a message 14 when it detects it has gone out of position.

– Replaced Figure 41bis with the new Figure 42 which provides the details about the ABCD dimension parameter. This new description gives more flexibility to the implementation of this field.

31 Annex 8, Table 79

– Modified the “Vender ID” description to make it clear that this field is permanent, unique, and should not have a default value.

32 Annex 8, Table 82

– Restructured the binary data fields for this message to conform to the binary data field descriptions of the other VDL message which provide binary data.

33 Annex 8, section 3.26

– Modified the title of the section from autonomous marine radio devices to AIS dynamic position marker.

34 Annex 8, section 3.27

– Added a new VDL Message 29 to support a single slot Electronic Aid to Navigation (eAtoN) Report.

35 General

– The footnote which states how many meters are in a nautical mile, and how many miles per hour are in 1 knots is repeated throughout the document and is redundant after this information is given the first time. There are also footnotes that give the number of miles per hour for various increments. This information can easily be determined, and the footnote brings no value. The same is true when footnotes give the number of meters for various increments. The redundant footnotes have been removed from the following sections: Annex 1 Table 1, Annex 1 section 5, Annex 2 section 3.2.2.8.2, Annex 2 section 4.1.5, Annex 2 section 4.1.8, Annex 2 section 4.3.1.3, Annex 2, section 4.4.1, Annex 3 section 4, Annex 7 section 3.5.2, Annex 7 Table 38, Annex 7 Table 42, Annex 8 Table 48, Annex 8 Table 59, Annex 8, Table 70, Annex 8 Table 71, Annex 8 table 84.

– Mobile equipment and mobile station is used interchangeably throughout the document. The document should be consistent in how the mobile device is referred as. Modified the following section to change “mobile equipment” to “mobile station”: Annex 1 section 2.1, Annex 1 section 4.1, Annex 1 table 1, Annex 1 Table 2, Annex 3 section 2, Annex 3 section 4.3.1, Annex 3 section 4.3.1.2, Annex 3 section 4.3.1.3, Annex 8 Table 46, Annex 8 section 3.16, Annex 8 section 3.17, Annex 8 section 3.22.

# 3 Attachments

The following attachment contains the proposed changes to Annex 14 to Document [5B/411](https://www.itu.int/md/R15-WP5B-C-0411/en) (Chairman’s Report) with track changes.



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