

**IALA COUNCIL  
60<sup>th</sup> Session**

**May 25-29, 2015  
Kuala Lumpur  
Malaysia**

**Agenda item 12 – INTERNATIONAL**

**12.2 ITU-R**

**12.2.1 ITU-R Working Party 5B**

**Note by the Secretariat**

**1 ITU-R WP5B MEETING OF 27 OCTOBER TO 7 NOVEMBER 2014**

Mr Stefan Bober represented IALA at this meeting. His report is attached as Annex A.

**2 ITU-R CPM MEETING OF 23 MARCH TO 2 APRIL 2015**

Mr Stefan Bober represented IALA at this meeting. His report is attached as Annex B.

**3 ACTION**

The Council is invited to Note.

## ANNEX A

### Report of the meeting ITU-R WP 5B Geneva 27 October to 7 November 2014

Int. Organization:	International Telecommunication Union - Radiocommunication, Working Party 5B (ITU-R WP 5B): Maritime mobile service including Global Maritime Distress and Safety System (GMDSS); aeronautical mobile service and radiodetermination service
IALA interest:	Maritime mobile service including Global Maritime Distress and Safety System (GMDSS) and radiodetermination service
Specific:	Development of VDES
Meeting	ITU-R WP 5B Geneva 27 October to 7 November 2014
IALA input:	Working Document toward a Preliminary Draft New Recommendation ITU-R M. [VDES] rev1; ENAV15-3.3.1 of 17 October 2014;
IALA participation	Stefan Bober

Report of the meeting related to IALA specific interest on the development of VDES

- 1.) **World Radio Conference 2015 (WRC 2015)**  
The document for the WRC 2015 Conference Preparatory Meeting in March 2015 (CPM text) has been closed last ITU WP 5B meeting, no amendments on that;
- 2.) **Preliminary Draft new Report on VDES SELECT**
  - 2.1) A new channel plan D was presented by China, the proposal is to place the 100 kHz VDE block next to ASM1 without guard channels, this proposal is now included in the WD PDN Report VDES SELECT;  
-> IALA is invited to provide rationales why the gap of 50 kHz between ASM1 and VDE is needed;
  - 2.2) Canada inputs its study on VDES; in consequence the proposed channel plan C is back in the discussion,  
-> IALA is invited to further consider this study and prepare input as appropriate;
- 3) **Preliminary Draft new Report on AIS PROTECTION**  
Shipborne voice communication on channels 2078, 2019, 2079 and 2020 may interfere with VDES:  
China provided trial evidence of the negative impact to AIS and VDES from those channels,  
A Russian study shows that 60 m horizontal distance between antennas would be needed to avoid negative effect on VDES, the WD PDN Report was drafted

- 4.) **Preliminary Draft new Report on VDE CHANNEL SOUNDING**  
The study on channel sounding from GLA and Australia will become an ITU report
- 5.) **Recommendation ITU-R M.1371-5**  
ITU plans to publish editorial corrections on Rec ITU-R M.1371-5 (probably new version but same revision Rec ITU-R M.1371-5)
- 6.) **Preliminary Draft new Rec ITU-R M.VDES**  
The IALA input was well received, discussion showed great interest, work achieved was welcomed (much improvement compared to the previous version);

China requested further input on issues like transmitter (operation mode and technical characteristics), receiver, frame structure, synchronization, message structure, etc.;

China has concerns regarding the simultaneous operation of an AIS receiver and a VDE transmitter (downlink) on a satellite at the same time;

China and Russia think more time might be needed for study after 2015, so they tend to leave the issue channel selection for VDE open,

-> IALA is invited to further develop all aspects of VDES and provide input to the next WP5B meeting in July 2015 (in track changes in the current document)

7.) **WRC 2015 Conference Preparatory Meeting (CPM meeting)**

The CPM meeting to prepare for WRC 15 will be held in Geneva March 23rd to April 2nd 2015

-> IALA is invited to actively participate at that meeting

## ANNEX B

### Report of the ITU Conference Preparatory Meeting, Geneva, 23th March to 2nd April 2015

Int. Organization:	International Telecommunication Union - Conference Preparatory Meeting:
IALA interest:	Maritime mobile service including Global Maritime Distress and Safety System (GMDSS) and radiodetermination service
Specific:	AGENDA ITEM 1.16: spectrum allocations to enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radiocommunication in accordance with Resolution (development of VDES)
Meeting	ITU CPM meeting, Geneva, 23 March to 2 April 2015 Second session of the 2015 Conference Preparatory Meeting for the purpose of preparing the CPM Report to the World Radiocommunication Conference 2015 (WRC-15) and to address preparatory studies for the following Conference
IALA participation	Stefan Bober

#### Report of the meeting related to IALA specific interest on the development of VDES (Agenda Item 1.16)

The goal of this agenda item is to consider potential new and enhanced applications of the automatic identification system (AIS) technology for improvement of the maritime radiocommunication. New applications using AIS technology are intended to improve the safety of navigation and applications depending on information that is to be exchanged between ships, and between ships and shore.

According to the complexity four issues have been identified to develop methods to satisfy the agenda item. For each of these issues methods to satisfy the agenda item have been developed. The issues are complementary to each other.

#### Issue A: Application-specific messages, identification of new channels, protection of AIS1, AIS2 from blocking

- Method A1 identifies the channels 2027 and 2028 of RR Appendix 18 for the application-specific message (ASM) not necessary for the safety of navigation and ensure protection of AIS1, AIS2, 2027 and 2028 by not allowing ships to transmit on channels 2078, 2019, 2079 and 2020.
- Method A2 identifies alternate channels 87 and 88 for the ASM channels and ensures the protection of AIS 1 and AIS 2 by power limitation on channels 2078, 2019, 2079 and 2020.

- Method A3 identifies the channels 2027 and 2028 of RR Appendix 18 for the application-specific message (ASM) not necessary for the safety of navigation and ensure protection of AIS1, AIS2, 2027 and 2028 by appropriate actions including not allowing ships to transmit on channels 2078, 2019, 2079 and 2020.

#### **Issue B: New applications for the maritime radiocommunication – terrestrial component**

- Method B1 identifies the channels 24, 84, 25 and 85 for the terrestrial component of the VDE.
- Method B2 identifies the possibility to use the channels 24, 84, 25, 85, 26 and 86 for the terrestrial component of the VDE.

#### **Issue C: New applications for the maritime radiocommunication – satellite component**

- Method C1-A identifies a secondary allocation for the maritime mobile-satellite service (MMSS) (Earth-to-space) on the VDES channels 1024, 1084, 1025, 1085, 1026, 1086, 2027 and 2028. It also identifies a secondary allocation for the MMSS (space-to-Earth) on the VDES channels 2024, 2084, 2025, 2085, 2026 and 2086. To ensure protection of mobile and fixed services, it is proposed that a new pfd mask be introduced in a new footnote to RR Article 5. To ensure protection of the nearest frequency band allocated to the radio astronomy service (RAS), modification of RR No. 5.208A and No. 5.208B are proposed.
- Method C1-B identifies a secondary allocation for the maritime mobile-satellite service (MMSS) (Earth-to-space) on the VDES channels 1024, 1084, 1025, 1085, 1026, 1086, 2027 and 2028. It also identifies a primary allocation for the MMSS (space-to-Earth) on the VDES channels 2024, 2084, 2025, 2085, 2026 and 2086. To ensure protection of mobile and fixed services, it is proposed that a pfd mask be introduced in Annex 1 to RR Appendix 5. To ensure protection of the nearest frequency band allocated to the radio astronomy service (RAS), modification of RR No. 5.208A and No. 5.208B are proposed. To ensure coordination with the terrestrial service provision of RR No. 9.14 shall apply, this is done by the modification of RR No. 5.226B.
- Method C2 identifies the frequency band 148 150 MHz (Earth-to-space) for the VDES satellite uplink, which is currently allocated to the mobile satellite service. It also identifies the frequency band 137-138 MHz (space-to-Earth) for the VDES satellite downlink, which is currently allocated to the mobile satellite service. No additional allocations or RR changes are required.

#### **Issue D: VDES regional solution**

- Method D provides a regional VDES solution, utilizing channels 80, 21, 81, 22, 82, 23 and 83.

#### **Observations of the meeting:**

IALA proposes channel plan A which transfers to methods A1+B1+C1-B of the above mentioned CPM text.

**Issue A**

Identification of ASM is widely supported (except for Russia). Both method A1 and A3 are very similar.

**Issue B**

The terrestrial component of channel plan A is supported by a vast majority of country; China is supporting the method B2

**Issue C**

The satellite component is widely supported (except from Russia) but with some difference in the regulatory introduction between Canada, China and Europe (C1-A and C1-B)

**Further input by IALA**

Further discussions on those issues will be held during the next meeting of ITU WP 5B in July 2015.

-> IALA is invited to provide further input to ITU draft new report [VDES SELECT] to give additional rationales for channel plan A

-> IALA is invited to further develop all aspects of VDES and provide input to ITU draft new report [VDES] (in track changes in the current document)

-> IALA is invited to actively participate at that meeting