

SUB-COMMITTEE ON NAVIGATION,  
COMMUNICATIONS AND SEARCH AND  
RESCUE  
4th session  
Agenda item 16

NCSR 4/16/XX  
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**RESPONSE TO MATTERS RELATED  
ITU WORLD RADIOCOMMUNICATION CONFERENCE**

**IALA Guideline 1117 on VHF Data Exchange System (VDES) Overview**

**Submitted by International Association of  
Marine Aids to Navigation and Lighthouse Authorities (IALA)**

**SUMMARY**

*Executive summary:* This document provides information on the development of the new IALA Guideline No. 1117 on VHF Data Exchange System (VDES) Overview and requests an appropriate action toward the development of a draft IMO position paper to WRC-19 agenda item 1.9.2.

*Strategic direction:* 1.1

*High-level action:* 1.1.2

*Planned output:* 1.1.2.2

*Action to be taken:* Paragraph 11

*Related documents:* MSC 95/INF.12, NCSR 3/17/1, NCSR 3/INF.12, NCSR 3/INF.21 and MSC 96/INF.10, NCSR 4/INF.XX

1 This document is submitted in accordance with paragraph 6.12.5 of the *guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.4/Rev.4).

**Background**

2 AIS is well recognized and accepted as an important tool for safety of navigation and is a carriage requirement for SOLAS vessels (Class-A). With increasing demand for maritime VHF data communications, AIS has become heavily used for maritime safety, maritime situational awareness and port security. As a result, to avoid overloading of AIS 1 and AIS 2 a need for additional AIS channels arose.

3 The International Telecommunications Union (ITU) has recognised the efficiency and the necessity for digital communications, has produced technical standards and has revised the VHF marine mobile band (RR Appendix 18) to designate channels for data transmission. It is recognised that both analogue voice communications and digital communications will share the VHF band.

4 The World Radiocommunications Conference 2015 (WRC-15) agreed on regulatory provisions and frequency allocations to support terrestrial digital data exchange on VHF and amended the channeling arrangement for VHF maritime frequencies contained in RR Appendix 18.

5 While digital data exchange on VHF as part of the maritime mobile-satellite service (MMSS), uplink and downlink, was discussed at WRC-15, WRC-15 decided to continue studies of compatibility between MMSS and incumbent services in both the identified bands and adjacent frequency bands, for consideration by WRC-19. (ITU Resolution 360 (WRC-15))

6 ITU has published Recommendation ITU-R M.2092-0; "Technical characteristics for a VHF data exchange system in the VHF maritime mobile band" defining the functions of VDES.

### **Information**

7 The VDES, as envisioned by IALA and presented to ITU, addresses the identified need to protect AIS along with essential digital communications contributions for e-navigation and GMDSS modernization. IALA has also informed of the status of the development of VDES to the Maritime Safety Committee (MSC) and the Sub-Committee on Navigation, Communication and Search and Rescue (NCSR) by the submission of the series of information papers

8 Continuing the work on VDES, IALA has recently published the "*IALA Guideline 1117 on VHF Data Exchange System (VDES) Overview*". This Guideline provides an introduction to the VDES and is intended to assist in the understanding, development and promotion of VDES. The Guideline is provided in NCSR4/INF. XX and is also available for free download from the Publication area of the IALA website ([www.iala-aism.org](http://www.iala-aism.org)). In addition, IALA has developed a frequently asked questions (FAQ) area for VDES, also available through the IALA website.

### **Discussion**

9 The Guideline introduces a number of potential uses of VDES with an overview of some use cases. These use cases are linked to the Maritime Service Portfolios (MSPs) as defined by IMO e-navigation strategic implementation (SIP) (NCSR1/28/Annex 7). The full capability of VDES, which includes the satellite service downlink, provides an efficient use of maritime VHF spectrum to support digital communications and has potential to contribute to the implementation of e-navigation; the modernization of GMDSS; and implementing maritime single window systems.

10 IALA therefore strongly supports, and is contributing where possible to, the studies conducted by ITU-R WP5B for WRC-19 agenda item 1.9.2.

### **Action requested of the Sub-Committee**

11 The Sub-Committee is requested to note the information provided including IALA Guideline 1117 on VHF Data Exchange System (VDES) Overview and take action as appropriate.

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