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11 – TECHNICAL ACTIVITIES

11.4 – ENAV

11.4.4 – Draft Guideline 1117 on VDES overview

Draft liaison note to [IHO, IEC, CIRM, RTCM, IMPA] New IALA Guideline 1117 on VHF Data Exchange System (VDES) Overview

1 BACKGROUND

AIS is well recognised 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.

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.

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 channelling arrangement for VHF maritime frequencies contained in RR Appendix 18.

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)).

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 the VHF Data Exchange System (VDES).

2 INFORMATION

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 the 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.



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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 annexed to this liaison note and is also available for free download from the Publication area of the IALA website (www.iala-aism.org). In addition, IALA has developed a frequently asked questions (FAQ) area for VDES, also available through the IALA website.

The Guideline introduces a number of potential uses of the VDES with an overview of some use cases. These use cases are linked to the Maritime Service Portfolios (MSPs) as defined by the IMO e-navigation strategic implementation plan (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 implementation of maritime single window systems.

3 ACTION REQUESTED

IALA invites [IHO, IEC, CIRM, RTCM, IMPA] to note the information provided and use the IALA Guideline 1117 on VHF Data Exchange System (VDES) Overview as appropriate.