

IALA COUNCIL 65th session



12-15 December 2017
IALA Headquarters

11 – IALA TECHNICAL ACTIVITIES

11.4 – ENAV

11.4.2 – ENAV Committee papers for consideration at the 65th session of the IALA Council

Note by the Secretariat

1. INTRODUCTION

The 21st session of the ENAV Committee (ENAV21) completed the following documents for publication on the IALA Website, after approval by Council.

2. DRAFT GUIDELINES FOR PUBLICATION

- **C65-11.4.2.1 (ENAV21-14.1.5) Draft Guideline G1127 on Systems and Services for High-accuracy Positioning and Ranging.**

This is a new Guideline which provides an overview of systems and services enabling high-accuracy (sub-metre level) positioning or ranging in specific areas such as waterways, traffic separation schemes, traffic zones with limited manoeuvring space, ports and harbours, and congested waters with increased risks of collisions or groundings.

- **C65-11.4.2.2 (ENAV21-14.1.6) Draft Guideline G1128 on Specification of e-Navigation Technical Services.**

A technical service is a service offered by one electronic device to another electronic device. Often operational services are implemented by electronic devices that offer several technical services to use the operational service.

The draft Guideline G1128 on Specification of e-Navigation Technical Services is a new Guideline which provides information on how to make specifications of technical e-navigation services. This enables service providers, consumers, and regulatory authorities to share a common understanding of a technical service and how to implement and use it. The Guideline is intended for service architects, system engineers and developers in charge of designing and developing a technical service or design, and developing a device to use it.

- **C65-11.4.2.3 (ENAV21-14.1.18) Draft Guideline G1129 on the retransmission of SBAS corrections using MF RB and AIS.**

Draft new Guideline G1129 sets out guidance for marine Aids to Navigation (AtoN) service providers wishing to understand where space-based augmentation service (SBAS) information could be used to support the mariner and how to employ such data.

Recognising that the generation of differential corrections can be split from the means of transmission, a number of different example architectures are provided. The draft Guideline provides an overview of SBAS structure, use and general coverage areas. For the sake of completeness, the direct use of SBAS from signals in space (SiS) on-board is introduced and complementary information is included in different annexes.



- **C65-11.4.2.4 (ENAV21-14.1.23) Draft Guideline G1117 Ed.2 VDES Overview.**

With increasing demand for maritime VHF data communications using the AIS, radio channels AIS 1 and AIS 2 have become overloaded creating a need for additional AIS channels. The VHF data exchange system (VDES) concept was originally proposed to address emerging indications of overload of the AIS VHF Data Link (VDL) and simultaneously enable a wider seamless data exchange for e-navigation, potentially supporting the modernisation of GMDSS. In addition, VDES could support the increasing communications requirements identified through the development of e-navigation, as documented in the IMO e-Navigation Strategic Implementation Plan (SIP). Guideline G1117 provides an introduction to the VHF Data Exchange System (VDES) at an overview level and is intended to assist in the understanding, development and promotion of VDES. It does not include technical details.

The Guideline has been updated to Edition 2 to reflect technical developments in VDES and reflect transmission aspects for addressed and broadcast messages.

- **Annexes to Guideline G1106**

IALA Guideline G1106 on Producing an IALA S100 Product Specification was approved by Council at its 64th session. The following three new annexes to G 1106 are templates to provide assistance to users of G1106 when preparing product specifications.

- **C65-11.4.2.5 Draft IALA Guideline 1106-1 Ed.1 IALA Product Specification Template;**
- **C65-11.4.2.6 Draft IALA Guideline 1106-2 Ed.1 Proposal for Additional S-100 Feature Concept Dictionary item - template;**
- **C65-11.4.2.7 Draft IALA Guideline 1106-3 Ed.1 Product specification under development - template.**

- **C65-11.4.2.8 Draft IALA Guideline G1139 on Technical Specification of VDES**

Draft Guideline G1139 has been prepared to provide technical information required in the development of VDES equipment, which integrates the functions of VHF data exchange (VDE), application specific messages (ASM) and the automatic identification system (AIS) in the VHF maritime mobile band (156.025-162.025 MHz).

This content is taken from the draft ITU Recommendation ITU-R M.2092-0 (C65-11.4.3.5), but is not intended to replace that document.

Development of the VDES is evolving and updates to the Guideline will be required as the system matures. As ITU Recommendation ITU-R M.2092-0 will not be available for some years, IALA Guideline G1139 (C65-11.4.2.8) is necessary to provide guidance to both system developers and users. Persons using this Guideline are encouraged to provide comments, corrections and further input on VDES developments to IALA.

3. DRAFT MARITIME RADIO COMMUNICATIONS PLAN

- **C65-11.4.2.9 (ENAV21-14.1.22) Draft IALA Maritime Radio Communications Plan (MRCP) Ed 3.**

The IALA Maritime Radio Communications Plan (MRCP) has been revised to Edition 3.

The MRCP has been developed by IALA to assist in the selection of radio communication systems required to support e-navigation and GMDSS. The current status of radio communication in the maritime mobile bands is discussed and forms the basis of projections for future developments needed to support e-navigation, GMDSS and the development of Maritime Autonomous Systems (Surface).

The MRCP provides guidance to IALA members regarding potential future developments, which will enable members to identify areas requiring resource allocation and research activity.



The draft MRCP Edition 3 is a general revision to reflect outcomes of ITU-R World Radio Conference 2017 (WRC-15) and preparation for ITU-R World Radio Conference 2019 (WRC-19).

A draft INF paper to NCSR-5 on Maritime Radio Communication Plan was developed to inform the fifth session of the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR-5) of the updating of the MRCP to Edition 3. It is submitted for Council's approval at input paper C65-11.4.3.1.

4. DRAFT REVISED VDES FAQs

- **C65-11.4.2.11 (ENAV21-14.1.27) VDES FAQ revision**

At its 63rd session the Council approved Guideline 1117 on VHF Data Exchange System (VDES) Overview. A revised draft Guideline 1117 is submitted to the 65th session of Council in paper C65-11.4.2.4.

The intention of the Guideline is to provide a greater understanding of the VDES concept by those involved in the development and provision of marine AtoN and e-navigation services. To further clarify the VDES the Council at its 63rd session approved publication of a list of Frequently Asked Questions (FAQ) regarding VDES on the IALA website. This list of Frequently Asked Questions (FAQ) regarding VDES is being frequently reviewed and expanded as shown in paper C65-11.4.2.11. It is felt that information regarding the VDES should be promulgated as soon as possible and therefore it is proposed to add questions 9 to 11 to the already published questions 1 to 8.

IALA will provide a web site with all registered OID. IALA will maintain a database of all entries and provides this database as CSV file on the web site as well. Paper C65-11.4.4.2 refers.

5. THE COUNCIL IS INVITED TO APPROVE THE PUBLICATION OF THE DOCUMENTS MENTIONED ABOVE.