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Technical Domain / Task Number 2 …………………………………

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Development of Guidelines on VDES resource sharing and coordination/cooperation

# Summary

At ENAV28, the authors proposed, by document ENAV28.5.1.3.3, a new work item of development of guidelines on VDES resource sharing and coordination/cooperation under IALA S1060. This proposal was discussed in ENAV Committee WG3 and ENAV28 agreed to upload this new work item proposal to IALA Council. The IALA Council in late of 2021 approved this new work item.

This document has been submitted to start-up the discussion for development of IALA Guidelines on VDES resource sharing and coordination/cooperation under IALS S1060.

## Purpose of the document

The document has been submitted for the purpose of starting up the work programme of the development of guidelines on VDES resource sharing and coordination/cooperation.

## Related documents

IALA G1060.

# Background

WRC 2019 agreed to allocate VHF channels to VDES including for VDES satellite communications. In near future, there will be available several VDES satellites and VDES land stations world-wide.

Maritime Safety Committee (MSC) of International Maritime Organization (IMO), at its 103rd session (MSC103) held in May 2021 agreed a new work item for introduction of VDES into the International Convention of Safety of Life at Sea (SOLAS) and will start the consideration from 2022 for two years. This will allow VDES as an alternative of AIS and furthermore as a communication way for maritime safety and e-navigation.

In the circumstances, IALA shall lead the collaboration on VDES communication services for establishment of international cooperation and resource sharing and management on VDES terrestrial and satellite communications.

# Discussion

## Objective of the project

The aim of the project of “Development of Guidelines on VDES resource sharing and coordination/cooperation” is to establish international cooperation for sharing of hardware and data resources and management on VDES terrestrial and satellite communication.

## Expected outcome

The expected outcome of the project is an IALA Guideline that provides framework of VDES resource sharing and coordination/cooperation for VDES satellites providers, VDES land-stations and VDES users to realize smooth and effective VDES communications on both official and private communications.

## Outline of the guidelines

It has been a long time since the announcement of the e-NAV concept to create a digital environment necessary for maintaining a sustainable marine environment. Since then, IALA-WWA (International Association of Marine Aids to Navigation and Lighthouse Authorities – World Wide Academy) has been involved in the development, management and maintenance of navigational aids and is proceeding with the examination of issues related to the development of advanced technology. Considering that IALA is strongly required to contribute to the development of the sustainable marine environment by transforming into an IGO (Intergovernmental Organization), IALA welcomes the decision to start the development of satellite VDES, which is the foundation of the marine digital society. Following this, we are pleased to propose measures for practical use of satellite VDES upon a coordination/cooperation of VDES communication providers and resources, since early and reliable commercialization of satellite VDES is essential for the sustainable use of the ocean.

IALA ENAV WG3 has started discussion to identify near future use cases of VDES in various maritime communications among merchant vessels and small crafts including pleasure crafts and fishing vessels.

It is also recognized that some organs/groups have started establishment of VDES satellite communication systems, including space segments and land-based segments.

Under these circumstances, it would be better to establish cooperation and coordination of operation of VDES communications by sharing these resources.

Therefore, it is necessary to consider the establishment of an international collaboration on the following points for the establishment of international cooperation and resource management of VDES communications in line with IRU-R M2092 Annex 6 Resource sharing method for VDES terrestrial and satellite services:

1 Coverage of land-based stations (control station of communication)

2 Sharing resources among land-based stations (control station of communication)

3 co-operation between VDE-TER and VDE-SAT

4 cooperation and resource sharing among VDES satellites

It would be necessary to establish an international organ for international cooperation, resource sharing and management for VDES communications. This international organ may consider, establish and manage protocols for harmonization of scenarios of use and application for VDES terrestrial and satellite communications.

ENAV Committee and its WG3 is requested to consider the idea above, in particular, the major outlines as described above toward to the development of Guidelines on VDES resource sharing and coordination/cooperation.

The authors are planned to make a presentation on the first draft of the guidelines in the ENAV29 WG3 meeting.

Upon the basic agreement, if reached, the authors are planning to submit a set of the draft guidelines to ENAV30.

# References

1. ENAV28.5.1.3.3
2. 20211015 WG3 New work items proposal 2021\_1015.

# Action requested of the Committee

The Committee is requested to consider the development of Guidelines on VDES resource sharing and coordination/cooperation outlined in paragraph 3.3.

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1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)