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RESPONSE TO MATTERS RELATED TO THE ITU-R STUDY GROUPS AND ITU WORLD RADIOCOMMUNICATION CONFERENCE

IALA Workshop on Digital Maritime Communication

Submitted by IALA

SUMMARY

Executive summary: This paper informs the Sub-Committee of the result of the IALA Workshop on Digital Maritime Communication.

Strategic direction, if applicable:

Output:

Action to be taken: Paragraph 8

Related documents: NCSR 9/24 (para. 12.24), IMO/ITU EG18/INF.2, NCSR 10/12

Background

1 At its 75th session (30 May - 3 June 2022), the IALA Council approved a workshop proposal on digital maritime communication infrastructure that had been proposed by the Japan Coast Guard. The workshop's goal is to create guidance for Marine Aids to Navigation (AtoN) authorities, including VTS, to address the digitalization of maritime communications.

2 At its 9th session, the Sub-Committee noted the information provided by IALA on an IALA Workshop on Digital Maritime Communication Infrastructure to be held in Tokyo, Japan, in January or February 2023. (NCSR 9/24, paragraph 12.24)

3 IALA submitted an information paper on the workshop to the 18th session of the Joint IMO/ITU Experts Group on Maritime Radiocommunication Matters (5 - 9 December 2022) (IMO/ITU EG 18/INF.2). The Group acknowledged that the IALA workshop on "Digital maritime communication", organized in association with the Japan Coast Guard, would be held at the Tokyo University of Marine Science and Technologies, from 20 to 24 February 2023. (NCSR 10/12, paragraph 9.3)

Workshop summary

4 The workshop, which was attended by 97 experts from 20 countries, took place from 20 to 24 February at the Tokyo University of Marine Science and Technologies.

5 A total of 22 presentations were made at the workshop, covering topics such as operational requirements, use cases, technologies, works of international organizations and associations related to maritime communication.

6 The workshop was organised into three working groups: operations, technologies and the human factor. The working groups considered various aspects on digital maritime communication and identified many opportunities and challenges for the continued digitalization of maritime communication.

7 A summary of the workshop is attached as annex to this paper. A copy of the full report of the workshop was available from the IALA website*.

Action requested

8 The Sub-Committee is requested to note the information provided.

* <https://www.iala-aism.org/product-category/publications/reports-and-proceedings/>

Report of the IALA workshop on Digital maritime communication

Executive Summary

The IALA workshop on Digital maritime communication was held between the 20 and 24 February 2023 at the Etchujima Campus of the Tokyo University of Marine Science and Technologies, Japan.

The workshop was very well attended, with 97 participants from 20 countries.

The workshop participants considered the various presentations that were given and the work conducted in the WGs, and it was concluded that:

- Considering IALA's expanding role as a technical authority on digital communications:
 - IALA should incorporate the availability, reliability, quality and integrity of communication systems into the general provision of Marine AtoN Services based upon the volume of traffic and degree of risk.
 - The leadership provided by IALA related to Maritime Services (MS) and digitalisation of maritime communication is evolving to support services not limited to IALA remit.
- IALA should encourage members to consider the roles, responsibilities, and potential overlap of responsibilities within their own national organization for the provision of Marine AtoN, Maritime Safety Information (MSI), and related services to address the requirements of Digital Maritime Communication (MARCOM) for the purpose of establishing a cohesive harmonized delivery scheme.
- IALA should recognize that a shift in vessel management philosophy of shipping companies is evolving from the sole responsibility of a vessel's Captain and crew to a shoreside management paradigm. Furthermore, it should be noted that this philosophy is not exclusive to MASS operations.
- Digitalization of the provision of Marine AtoN services brings cybersecurity risk, which must be mitigated. Unencrypted communications have additional cybersecurity risks that must be managed. It is therefore, imperative that IALA develop recommendations and guidelines to support the use of secure Digital Maritime Communication services. "Always secure unless technically impossible or undesirable".
- IALA should recognize the benefits of Digital Maritime Communications and the potential relationship of UN Sustainable Development Goals (SDGs) to include decarbonization.
- IALA should continue to contribute with expertise to IMO, ITU, IHO and other bodies to ensure harmonization, standardization and interoperability relating to Marine AtoN, including VTS.
- The benefit of digitalisation of VHF voice communication is the increased efficiency within the finite maritime mobile band. Digitalisation must ensure similar or better quality and intelligibility than that of analogue. Backward compatibility should be accounted for, as there will be a long transition time.
- Infrastructure both aboard and ashore should support Quality of Service to accommodate different and simultaneous communication over the same link. It is recommended that guidance is developed by relevant bodies, in cooperation with IALA, to incorporate these technologies in solutions for vessels and shore authorities.
- The following roadmap was agreed:

