

SUB-COMMITTEE ON NAVIGATION,  
COMMUNICATION AND SEARCH AND  
RESCUE  
11th session  
Agenda item 14

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## IDENTIFICATION OF MEASURES TO IMPROVE THE SECURITY AND INTEGRITY ASPECTS OF AIS

### IALA Guideline on VDES VDL Integrity Monitoring

Submitted by IALA

#### SUMMARY

*Executive summary:* This document introduces the newly published IALA Guideline **GXXXX** on VDES VDL Integrity Monitoring and requests the action of the Sub-Committee.

*Strategic direction, if applicable:* 7

*Output:* 7.50

*Action to be taken:* Paragraph 9

*Related documents:* MSC 105/20, MSC 106/19, MSC 107/20, NCSR 10/22, IMO/ITU EG 19/7

### Background

1 At its 105<sup>th</sup> session, the Maritime Safety Committee instructed the NCSR Sub-Committee to consider how ships without proper registration were able to obtain Maritime Mobile Service Identity (MMSI) numbers, in particular to manipulate AIS data transmissions (MSC 105/20, paragraph 2.7).

2 At its 106<sup>th</sup> session, the Maritime Safety Committee again instructed the NCSR Sub-Committee to consider the review of hardware and software security standards for preventing the tampering of AIS transponders (MSC 106/19, paragraph 2.8.1).

3 At its 10<sup>th</sup> session, the Sub-Committee on Navigation, Communication and Search and Rescue, considered the issues and invited the Committee to approve a new output on "Identification of measures to improve the security and integrity aspects of AIS" and also invited interested Member States and international organizations, subject to the Committee's approval of such action, to consider submitting proposals to NCSR 11 on this matter (NCSR 10/22, paragraph 21.31).

4 At its 107<sup>th</sup> session, the Maritime Safety Committee agreed to include a new output on "Identification of measures to improve the security and integrity aspects of AIS" in the biennial agenda of the Sub-Committee for 2024-2025 and the provisional agenda of NCSR 11 (MSC 107/20, paragraph 17.77.4).

5 In this regard, the nineteenth meeting of the Joint IMO/ITU Experts Group on Maritime Radiocommunication Matters had a preliminary discussion on the matter and some views were expressed including the new IALA Guideline on VDES VDL Integrity Monitoring (IMO/ITU EG 19/7, paragraph 7.3.6).

### **IALA Guideline**

6 IALA has published a new IALA Guideline **G XXXX** on VDES VDL Integrity Monitoring (add link). Noting, that VDES includes AIS, this Guideline aims at helping Competent Authorities develop strategies to address integrity issues.

7 The Guideline contains several items for integrity monitoring such as source of VDES VDL vulnerability, proposed approach, detection, investigation, report, inform and defend and regulation and enforcement.

8 In addition to the Guideline, IALA is exploring the feasibility of using cryptographical methods for the authentication of AIS by use of the VDES capabilities.

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

- 9 The Sub-Committee is requested to note the information provided and consider;
- .1 the IALA guideline on VDES VDL Integrity Monitoring;
  - .2 the identified risks in the Guideline against the IMO security and integrity requirements; and
  - .3 the recommended proposed approach identified in the Guideline.