INTERNATIONAL MARITIME ORGANIZATION

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ANY OTHER BUSINESS

Draft SOLAS amendments for the mandatory carriage of electronic inclinometers on container ships and bulk carriers

Submitted by France, Germany, the Netherlands and ICS

SUMMARY

Executive summary:	This document proposes amendments to regulations 1, 18 and 19 of SOLAS chapter V for the mandatory carriage of electronic inclinometers on container ships and bulk carriers
Strategic direction, if applicable:	2
Output:	Not applicable
Action to be taken:	Paragraph 15
Related documents:	MSC 101/24, MSC 101/21/14, MSC 101/INF.9; MSC.1/Circ.1228; resolutions MSC.333(90) and MSC.363(92)

Introduction

1 At its 101st session, the Maritime Safety Committee (MSC) agreed to include in its post-biennial agenda an output No.170 on "Development of SOLAS amendments for mandatory carriage of electronic inclinometers on container ships and bulk carriers". The electronic inclinometers shall meet the requirements of resolution MSC.363(92).

2 NCSR 7 proposed to MSC 102 to include output No.170 from the Committee's post-biennial agenda in the 2020-2021 biennial agenda of the Sub-Committee (MSC 102/16, paragraph 3.4.2).

3 Due to the rescheduling of NCSR 8 in view of the pandemic, the Committee did not approve the inclusion of output No.170, since there would not be sufficient time to address that output properly during this biennium.

Background

4 The first draft of the performance standards for VDRs proposed that the VDR should be equipped with an integral inclinometer if such data is not provided by external sensors (NAV 55/WP.4, annex 4). This approach would intermingle the functionality of a VDR as a recording device and sensor functions which should be provided by separate equipment in a well-specified manner.

5 In the performance standards for shipborne voyage data recorders from 22 May 2012, the electronic inclinometer is an optional external equipment that, if installed, should be connected to the VDR to record roll motion information (resolution MSC.333(90), annex, paragraph 5.5.18).

6 MSC.1/Circ.1228 from 11 January 2007, which provides guidance to the master for avoiding dangerous situations in adverse weather and sea conditions, makes operational use of information about the heel angle and roll period.

7 Resolution MSC.363(92) of 14 June 2013, *Performance standards for electronic inclinometers* define, in section 7, that the roll period, the roll amplitude and the actual heel angle are to be displayed. This information to the navigational officer supports the guidance given in MSC.1/Circ.1228 and due to the external electronic nature of the equipment the information can be shared with other functions on the vessel, if applicable.

Consideration

8 The performance standards for electronic inclinometers exist. The electronic equipment can provide information on critical stability and navigational situations of the vessel and share the information on roll period and actual heel angle with any other equipment or function on the vessel, if applicable, to be used by marine personnel in a reliable manner on board ships or to be recorded for the purpose of incident investigation.

9 To make the carriage of electronic inclinometers mandatory, only relatively small amendments in SOLAS chapter V are necessary.

10 In support of the decision by MSC 101 to develop SOLAS amendments for mandatory carriage of electronic inclinometers on container ships and bulk carriers, this document proposes amendments to SOLAS regulations V/18.2 and 19. Since MSC 101 and since the accidents mentioned in document MSC 101/21/14 occurred, a number of other relevant accidents occurred, especially where ships lost containers due to excessive lateral accelerations resulting from short roll periods. A mandatory carriage requirement for inclinometers could assist the crew in decision-making to avoid those accidents and will provide important data to support future consideration of the related risks, if necessary.

11 The proposed amendments summarize and harmonize the carriage requirements for shipborne electronic inclinometer equipment using already established performance standards. This equipment provides and displays data for navigation decision; and supports the framework for an efficient investigation of accidents in order to meet evolving demands and to foster the technological and socio-technical progress. To harmonize the new requirement with the carriage requirement for voyage data recorders, the proposed amendments would apply to ships of 3,000 gross tonnage and upwards.

12 The delay in dealing with these amendments, due to the rescheduling of NCSR 8 in view of the pandemic, would lead to an entry into force date in 2028 when following normal procedures. Already looking at the significant container losses encountered in recent years, the need for urgent action is apparent. It is the view of the co-sponsors that there are two possible ways to deal with this urgent matter without delaying the amendments further.

13 The first option is, as the necessary amendments to SOLAS chapter V are relatively small, that the Committee approves the draft amendments, as set out in the annex, at this session with a view to adoption at MSC 105. This direct approach would minimize the demand on currently critical resources of the Organization, as it would avoid further discussions in the NCSR Sub-Committee and later the Committee. For the co-sponsors, this is the preferred option, as: it avoids uncertainty, will reduce the workload, and would ensure a timely entry into force of the much-needed amendments.

14 The second option is, if the consideration of the proposal by the NCSR Sub-Committee is deemed necessary, to exempt the amendments from the 4-year amendment cycle under section 4 (Exceptional circumstances) of the *Guidance on entry into force of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1481).

Action requested of the Committee

15 The Committee is invited to consider the proposals in paragraphs 13 and 14 and take action, as appropriate.

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ANNEX 1

PROPOSED AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA; 1974, AS AMENDED

CHAPTER V
SAFETY OF NAVIGATON

Regulation 1 – Definitions

1 The following new paragraphs are added after the existing paragraph 7 with the associated footnote:

8 *Bulk carrier* means a bulk carrier as defined in regulation XII/1.1.

9 *Container ship* means a ship which is intended primarily to carry containers*.

* The term "container" should be considered as having the same meaning as defined and applied in the International Convention for Safe Containers (CSC), 1972, as amended.

Regulation 18 – Approval, surveys and performance standards of navigational systems and equipment and voyage data recorder

2 The following reference is added to the footnote corresponding to paragraph 2:

Performance standards for electronic inclinometers (resolution MSC.363(92)).

Regulation 19 – Carriage requirements for shipborne navigational systems and equipment

3 The following new paragraph 2.12 is added after existing paragraph 2.11:

2.12 Container ships and bulk carriers of 3,000 gross tonnage and upwards constructed on or after [1 July 2024] shall be fitted with an electronic inclinometer, or other means, to determine, display and record the ship's roll motion.

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ANNEX 2

CHECK/MONITORING SHEET FOR THE PROCESS OF AMENDING THE CONVENTION AND RELATED MANDATORY INSTRUMENTS (PROPOSAL/DEVELOPMENT)

Part I – Submitter of proposal (refer to paragraph 3.2.1.1)*

1 Submitted by MSC 103/20/10 Germany, Netherlands and ICS
2 Meeting session MSC 103
3 Date (date of submission) 1 March 2021

Part II – Details of proposed amendment(s) or new mandatory instrument (refer to paragraphs 3.2.1.1 and 3.2.1.2)*

1 Strategic direction
2
2 Title of the output
Development of SOLAS amendments for mandatory carriage of electronic inclinometers on container ships and bulk carriers
3 Recommended type of amendments (MSC.1/Circ.1481) (delete as appropriate)
Four-year cycle of entry into force
4 Instruments intended for amendment (SOLAS, LSA Code, etc.) or developed (new code, new version of a code, etc.)
SOLAS
5 Intended application (scope, size, type, tonnage/length restriction, service (International/non-international), activity, etc.)
Container ships and bulk carriers of 3,000 gross tonnage and upwards
6 Application to new/existing ships
New ships
7 Proposed coordinating sub-committee
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8 Anticipated supporting sub-committees
-
9 Time scale for completion
-
10 Expected date(s) for entry into force and implementation/application
1 July 2024
11 Any relevant decision taken or instruction given by the Committee
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