



**DEVELOPMENT OF A GOAL-BASED INSTRUMENT FOR MARITIME AUTONOMOUS
SURFACE SHIPS (MASS)**

Editorial comments on proposals in document MSC 111/5/6

Submitted by IACS

SUMMARY

Executive summary: This document provides editorial comments on document MSC 111/5/6 containing the proposal for the forms of certificates for MASS.

*Strategic direction,
if applicable:* 2

Output: 2.23

Action to be taken: Paragraph 5

Related document: MSC 111/5/6

Introduction

1 This document is submitted in accordance with the provisions of paragraph 6.12.5 of the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.6) and comments on document MSC 111/5/6 (China) by offering editorial changes to the proposed forms of certificates for MASS.

2 Following the decisions made at MSC 110 and in order to facilitate the finalization of the non-mandatory code and its future implementation, in document MSC 111/5/6, China presented draft forms/models of certificates for MASS along with the associated records in accordance with the requirements stipulated in draft chapter 5 and other relevant draft chapters of the Code.

3 IACS appreciates the continuous contributions and efforts by China to the development of the draft MASS Code, and submits this commenting document aimed at facilitating discussions on the development of forms of certificates and associated records.

Discussion and proposal

4 While conducting a review of document MSC 111/5/6, IACS identified a few editorial comments for consideration by the Committee, as presented in the annex.

Action requested of the Committee

5 The Committee is invited to consider the editorial comments in the annex and take action, as appropriate.

ANNEX

EDITORIAL COMMENTS ON DOCUMENT MSC 111/5/6

No	Form	Page No. of MSC 111/5/6	Items	Comments
1	MASS Certificate	Annex, page 2	"4... ensuring a level of safety expected of a conventional ship."	"4... ensuring a level of safety equivalent to that expected of a conventional ship." Justification for correction: Wording improvement.
2	Provisional MASS Certificate	Annex, page 13	"1... which enables initiation of operations during the testing and verification stage."	"1...which enables initiation of trial operations during the testing and verification stage." Justification for correction: "operations" needs to be limited to testing/trials only, and commercial ship operations need to be restricted under a provisional MASS certificate.
3	Provisional MASS Certificate	Annex, page 14	"2 Individual MASS systems have been tested and verified and results of ship simulation (if applicable) are reviewed and accepted."	"2 Individual MASS systems have been tested and verified and results of ship simulation (if applicable) are have been reviewed and accepted." Justification for correction: Recommend revising the wording from "are" to "have been". Although Part 2/5.5 of the Code currently uses "are", the certificate should reflect that the relevant conditions have already been satisfied, and therefore "have been" is considered more appropriate.
4	Provisional MASS Certificate	Annex, page 14	"3 All the design documents have been updated accordingly and approved according to the simulation and system testing results."	"3 All the design documents have been updated accordingly and approved according to the in accordance with chapter 6 (Approval process), accounting for the simulation and system testing results." Justification for correction: Rewording of the approval process-related items under both provisional certificates is suggested to improve clarity.

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5	Provisional MASS ROC Certificate	Annex, page 16	"1 That the ROC complied with the provision of part 2/5.5 of the International Code of Safety for Maritime Autonomous Surface Ships as a ship which enables initiation of operations during the testing and verification stage."	"1 That the ROC complied with the provision of part 2/5.5 of the International Code of Safety for Maritime Autonomous Surface Ships as a ship which enables initiation of trial operations during the testing and verification stage." Justification for correction: Corrected since the subject of the sentence is "ROC".
6	Provisional MASS ROC Certificate	Annex, page 16	"Alternatively, the particulars of the ship may be placed horizontally in boxes."	"1 Alternatively, the particulars of the ship ROC may be placed horizontally in boxes." Justification for correction: Footnote number "1" is missing. In addition, footnote 1 is referred from "Particulars of ROC". The wording "ship" in footnote 1 should be replaced with "ROC".
7	Provisional MASS ROC Certificate	Annex, page 17	"2 Individual systems related to MASS Remote Operation functionality have been tested and verified and results of ship simulation (if applicable) are reviewed and accepted."	"2 Individual systems related to MASS Remote Operation functionality have been tested and verified and results of ship simulation (if applicable) are have been reviewed and accepted." Justification for correction: "ship" removed, as focus is interaction between asset and ROC. Recommend revising the wording from "are" to "have been". Although part 2/5.5 of the Code currently uses "are", the certificate should reflect that the relevant conditions have already been satisfied, and therefore "have been" is considered more appropriate.

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8	Provisional MASS ROC Certificate	Annex, page 17	"3 All the design documents have been updated accordingly and approved according to the simulation and system testing results."	"3 All the design documents have been updated accordingly and approved according to in accordance with chapter 6 (Approval process) accounting for the simulation and system testing results." Justification for correction: Rewording of the approval process-related items under both provisional certificates is suggested to improve clarity.
