INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
112th session
Agenda item 5

MSC 112/5/24
23 October 2026
Original: ENGLISH
Pre-session public release: ☒

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

Comments on document MSC 112/5/12

Submitted by ICS

SUMMARY

Executive summary:	This document provides comments on document MSC 112/5/12 (Australia et al.), which details the pathway for the development of Interim Guidance on a Training, Certification and Watchkeeping Framework for MASS Personnel.
Strategic direction, if applicable:	2
Output:	2.23
Action to be taken:	Paragraph 11
Related documents:	MSC 111/5; HTW 12/INF.12; HTW 11/4; MSC 111/5/4, MSC 111/22; MSC/ISWG/MASS 4/WP.1 and MSC 112/14/8

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.7) and comments on document MSC 112/5/12 (Australia *et al.*).

2 Following the decision of MSC 111 to adopt resolution MSC.595(111) on *International Code of Safety for Maritime Autonomous Surface Ships* (MASS Code) (MSC 111/22, paragraph 5.36), it is noted that the MASS Working Group at MSC 112 is tasked with developing requests to other organs, including the Sub-Committee on Human Element, Training and Watchkeeping (HTW), which have been made associated organs to the MASS agenda item (MSC 111/WP.9, paragraphs 74 and 75, and MSC 111/22, paragraph 5.46).

3 ICS appreciates the significant contributions made by the co-sponsors of document MSC 112/5/12 (Australia *et al.*) towards the development of the MASS Code and submits this commenting document aimed at facilitating discussion on the development of Interim Guidance on a Training, Certification and Watchkeeping Framework for MASS Personnel.

4 ICS notes and appreciates the proposals in document MSC 112/5/12 (Australia *et al.*), detailing the pathway towards development of interim guidance, in order to support the efficacy of the MASS Code during the Experience-Building Phase (EBP) and to support the ability of industry to begin development of the Remote Operator workforce in an internationally consistent manner during this phase.

Discussion

Timeline and working methods

5 Paragraph 13 of document MSC 112/5/12 states:

> "As a first step, it is proposed that HTW 13 consider establishing a correspondence group to prepare draft proposals for consideration at HTW 14, with a view to approving interim guidance no later than HTW 15 in 2029."

6 ICS notes that a rationale for prioritizing the initiation of this workstream at HTW 13 has not been provided. The following are brought to the attention of the Committee:

.1 Lack of immediate commercial necessity: Current market projections indicate that commercial, ocean-going MASS are highly unlikely to be globally prevalent for the foreseeable future. This cautious deployment timeline is explicitly corroborated by an external industry assessment,[1] which notes that major global shipbuilders are not actively producing large uncrewed vessels for routine commercial trading, and points out that conventional shipping assets built today will dominate international trade for the next 20 to 25 years.

.2 Sufficiency of localized frameworks: During the initial EBP, early MASS operations will remain overwhelmingly localized and segmented. Technical and academic analyses from the World Maritime University (WMU)[2] confirm that early MASS deployments are restricted to specific domestic coastal States, inland waterways, or strict short-sea bilateral arrangements (such as localized trial frameworks in Norway and Japan). Because these early, isolated operations are safely and dynamically governed by localized coastal State frameworks and interim IMO guidelines, a global "regulatory vacuum" does not exist.

.3 The workload on the HTW and capacity constraints: Initiating a complex, multi-year international workstream at this stage is premature given the current administrative reality. HTW is already operating at maximum capacity, actively coordinating three Working Groups and two Drafting Groups during sessions, alongside two intersessional Correspondence Groups.

Regulatory placement

7 Paragraph 14 of document MSC 112/5/12 states:

> "Alongside development of the interim guidance, it is proposed that HTW discusses the appropriate placement of the Training, Certification and Watchkeeping Framework for MASS Personnel, and facilitates agreement among the relevant parties on whether it should be included as part of the STCW Convention and STCW Code, as part of the MASS Code, or in another appropriate instrument."

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1 IALA - The Future of Maritime Autonomous Surface Ships (MASS)

2 WMU Dissertations - The significance of marine autonomous surface ships: prospects to the Philippine maritime industry

8 ICS believes that initiating a formal debate at this early stage regarding the final regulatory placement of the training framework is premature and counterproductive. The following are brought to the attention of the Committee:

.1 Regulatory placement: Initiating a formal debate at this early stage regarding the final regulatory placement of the training framework risks distorting the core competency requirements before they are fully understood. Forcing a premature decision on placement risks restricting the technical development of the framework by trying to make it conform to the rigid, legacy boundaries of existing conventions.

.2 Fundamental mismatch in competencies: The daily operational reality of a shore-based Remote Operator is entirely different from that of an onboard mariner, relying heavily on specialized software ecosystems, data analytics, and digital human-machine interfaces. Conversely, large elements of traditional conventions such as physical onboard fire fighting, lifeboat launching, or enclosed space entry are completely irrelevant to shore-based personnel. Forcing a debate on the target instrument before these core competency differences are independently parsed out will inevitably distort the curriculum.

Recommendations

9 Given that independent industry data demonstrates that commercial readiness does not necessitate an immediate international framework, and considering the severe resource strain on HTW, the initiation of this work should be deferred to the post-biennial agenda of HTW, as proposed within paragraph 19 of document MSC 112/14/8 (Panama and ICS). This will allow the HTW to focus its limited resources on its current high-priority mandates.

10 Training and competency standards must be developed independently of any preconceived regulatory boxes. The most appropriate target instrument for these standards will naturally become apparent once the core functional duties, technical skills, and operational profiles of MASS personnel are fully established and understood. The functional safety requirements must drive the regulations and not the other way around. The Committee is urged to defer any discussions regarding the final regulatory placement of the framework, allowing the workstream, when initiated, to focus strictly on defining the core competencies and functional requirements first.

Action requested of the Committee

11 The Committee is invited to consider the discussion in paragraphs 5 to 8 and the recommendations provided in paragraphs 9 and 10, and take action, as appropriate.