

IMO MSC
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REGULATORY SCOPING EXERCISE FOR THE USE OF MARITIME AUTONOMOUS SURFACE SHIPS (MASS)

SUBMISSION BY COMITÉ MARITIME INTERNATIONAL WORKING GROUP ON UNMANNED SHIPS (CMI IWG US)

SUMMARY

Executive summary: The submission includes a summary of the responses received from National Maritime Law Associations to the CMI IWG Questionnaire on Unmanned Ships and the work of the IWG on SOLAS, MARPOL, COLREGs, STCW, FAL, SAR, SUA and the Salvage Convention identifying provisions which may need to be clarified or amended and those provisions where no action is necessary.

Output:

1. Summary;
2. Spreadsheets

Action to be taken:

Related documents: MSC 98/20/2, MSC 98/20/13 and MSC 98/23

1. Introduction

In 2015 the CMI set up an International Working Group ("IWG") on Unmanned Ships, recognising that this was a technological development which would require some careful legal attention before it could be accommodated within the legal and regulatory framework of the international regulations governing shipping. The current purpose of the IWG is to identify the legal issues surrounding the uptake of unmanned shipping and to provide an international legal perspective to the issues involved.

In June 2017 the CMI reported to MSC 98 and following that meeting the IWG has been requested to continue with its work and to report to MSC 99.

In January 2018 Canada and a number of other countries and NGO's proposed to LEG 105 that it should undertake a regulatory scoping exercise of the conventions under its purview with respect to Maritime Autonomous Surface Ships (MASS). This proposal is supported by the CMI.

2. Unmanned Ships

The term “unmanned ship” refers to a ship that has no crew members on board. Depending on the level of automation, the ship may be operated either remotely by one or more shore-based remote controllers, or in a fully automated mode without human intervention. The level of automation of the operation is not fixed but may change during a single voyage.

3. The Questionnaire

In May 2016 the IWG presented to the CMI Conference in New York and subsequently produced a position paper which identifies those provisions of the law of the sea as codified in UNCLOS and the main IMO regulations which pose particular challenges for the introduction of the new technology and may require particular attention in order for unmanned ships to be compliant. The Position Paper may be found at: <http://www.comitemaritime.org/Uploads/Questionnaires/CMI%20Position%20Paper%20on%20Unmanned%20Ships.pdf>.

The IWG also issued a questionnaire focusing on how national laws will respond to unmanned shipping in the context *inter alia* of UNCLOS, the IMO Conventions, COLREGS and the STCW Convention. The Questionnaire may be found at:

<http://www.comitemaritime.org/Uploads/Questionnaires/CMI%20IWGUS%20Questionnaire%202024%2003%2017.docx>

The Position Paper and the Questionnaire were sent out to the 52 National Maritime Law Associations which are members of the CMI.

As at 13 February 2018 the IWG has received a total of 19 responses to the Questionnaire from the maritime law associations of Argentina, Brazil, Canada, China, Croatia, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Malta, the Netherlands, Panama, Singapore, Spain, the United Kingdom and the United States. A summary of the responses has been prepared by the IWG and may be found at Appendix 1. The responses to the Questionnaire may be found at:

<http://www.comitemaritime.org/Maritime-Law-for-Unmanned-Craft/0,27153,115332,00.html>.

4. The Review of the Conventions

Subsequently in 2017 the IWG embarked on the next phase of its work which is to analyse in more depth each IMO legal instrument and identify those provisions which may need some amendment or clarification in order to accommodate unmanned shipping in international waters.

4.1. Selection of Conventions

There are more than 50 IMO Legal Instruments. As stage 1 of the project, the IWG has selected what are considered to be the conventions most relevant to unmanned shipping and therefore most urgently requiring review. Conventions such as the liability conventions tend not to regulate the conduct of the Master and crew and may therefore be analysed at a later stage.

It is recognised that a review of all conventions will be necessary but that work can and should proceed on the conventions selected in order to establish a *modus operandi* which can be applied across the legal and regulatory framework.

The eight conventions selected for analysis by the IWG at this stage are as follows:

- SOLAS - International Convention for the Safety of Life at Sea;
- MARPOL-The International Convention for the Prevention of Pollution

- from Ships
- COLREGs -The International Regulations for Preventing Collisions at Sea;
- STCW -The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers;
- FAL - Facilitation of Maritime Traffic Convention;
- SAR - International Convention on Maritime Search and Rescue;
- SUA - Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation;
- The International Convention on Salvage.

4.2. Methodology

The work product analyses each convention and is in a tabular format identifying the following:

- the provisions of the particular convention which may require clarification or amendment or potentially both and some of the provisions which do not require any action but, given their relevance, are included in the tables;
- the issue to be addressed by way of a brief commentary;
- the action which may be required in order to accommodate unmanned shipping within the current regulatory regime.

Provisions of the selected conventions that are not included in the tables have accordingly been considered not to raise any particular issues with respect to unmanned ships.

The IWG has identified 3 categories of actions which may be necessary in order to achieve this:

(i) **Amendment.** Amendment may be required where, in the context of the regulation of unmanned shipping, the existing provision clearly applies and it is not clear how unmanned ships can comply with it. The solution may be either to amend the provision or to remove unmanned ships from its scope of application. In the table in Appendix 2, the colour red is used to denote that an amendment may be required or considered.

(ii) **Clarification.** Clarification may be required where, in the context of the regulation of unmanned shipping, it is unclear whether and if so how the existing provision applies to unmanned ships and some form of clarification may be required. The colour yellow is used to denote that clarification may be required. Clarification does not necessarily call for a change to the terms of the IMO Legal Instrument but could be achieved by less formal means, such as guidelines etc.

(iii) **No action required.** No action may be required where, in the context of the regulation of unmanned shipping, the existing regulatory framework is effective. The colour green is used to highlight provisions that have some relevance for unmanned ships but which are not deemed to require any further action.

In many cases, it is a matter of interpretation or policy to decide whether a particular provision may require amendment or mere clarification. Those cases are categorised

as **amendment/clarification** and are indicated in orange.

The IWG has identified a number of generic words and terms in each of the Conventions which need to be clarified. For example, almost all of the conventions refer to the master. It will have to be considered whether the term "master" extends to shore-based personnel and in either case how the regulations can be adapted so that they apply effectively to the reality of command and control being exercised by one or more individuals from the shore or another ship. These generic words/terms tend to be repeated in many of the conventions, and it may be that an overriding instrument can provide a general application of these words across the conventions without a need to make serial amendments to each convention.

The IWG has indicated at the beginning of each table those words/terms which are considered to be generic, and where it is considered that a generic word/term in a provision can be treated in this way, the word/term will be set out in the Comment column with no further explanation.

The IWG has worked on the current versions of the conventions available on the internet. In some instances it may be that other more recent editions exist which are not yet available.

It should also be noted that the review which has so far taken place is very much preliminary both in terms of scope and depth. The purpose of the exercise has been to assist the work of the Committee by identifying the nature and scope of the challenges ahead and to canvass possible solutions.

The analysis of the Conventions which the IWG has undertaken may be found at Appendix 2.

The CMI IWG US anticipates that the 105th session of the Legal Committee will adopt the Canadian proposal that LEG carries out a scoping exercise of conventions under its purview. The CMI IWG is of course happy to assist in the work of the Legal Committee and trusts that an overriding scoping exercise covering all international conventions under the purview of IMO will be conducted as a joint programme by the Legal Committee and the MSC.

