

ROYAL INSTITUTION OF NAVAL ARCHITECTS

REPORT OF MSC 98

MSC 98 was held from 7 to 16 June 2017 and attended by members of the IMO committee.

EXECUTIVE SUMMARY

Amendments were made to the following, and the majority were agreed:

- 1974 SOLAS
- IGF Code
- 1994 HSC Code
- 2000 HSC Code
- LSA Code
- IMSBC Code

All the amendments were deemed to be accepted on 1 July 2019 and enter into force on 1 January 2020. The amendment to the IMSBC Code will be accepted and enter into force one year earlier.

Other matters discussed at MSC98 included:

- Cyber Security
- The Polar Code
- The value of 'R' in SOLAS regulation II-1/6.
- The Safety Level Approach associated with Goal Cased Standards.
- Onboard Lifting Appliances and Winches.
- New work programme items on Autonomous Surface ships, and Amendments to SOLAS Ch. III and the LSA Code.

FULL REPORT

Amendments to mandatory Instruments.

All of these amendments can be seen in WP 5 and WP 6. They will be attached to the final report of the committee, as IMO resolutions, when it is issued. They will also be considered to be accepted by contracting governments by 1 July 2019 and enter into force on 1 January 2020, except for the IMSBC Code which will be one year earlier.

1974 SOLAS Convention.

The Committee had for its consideration a number of documents proposing a modified formula for the required subdivision index *R* for passenger ships in the draft amendment to SOLAS regulation II-1/6, with the following features:

- for the carriage of less than 400 persons on board, R is constant at 0.722 ;
- for the carriage of 400 to 1,350 persons on board, R increases linearly to the R level that was approved by MSC 96.
- for the carriage of more than 1,350 persons on board, R is the same as approved by MSC 96. In this regard, for the carriage of more than 6,000 persons on board, the two-part formula for calculation of index R , approved at MSC 96, has been simplified to a single formula that provides the same R value.

The Committee unanimously agreed with the modified formula for the required subdivision index R for passenger ships. Subsequently, the Committee confirmed the contents of the proposed amendments to SOLAS regulation II-1/6, subject to editorial improvements, if any.

Following the discussion, the Committee agreed to the editorial modifications to the draft amendments to SOLAS chapter II-1. Subsequently, the Committee confirmed the contents of the proposed amendments to SOLAS chapter II-1, as set out in annex 1 to document MSC 98/WP.5, subject to editorial improvements, if any.

Other amendments were made to:-

- Regulation 8-1 – Testing of davits and launching arrangements.
- B2 reg. 9, 10 and 16-1;
- B4 reg 19;
- II-2 reg.3.56 – Definition of a Vehicle Carrier
- II-2 reg.20.2 – Protection of Vehicle, Special Category and ro-ro spaces.
- II-2 reg 9.4.1.3 – Fire Integrity of windows in Passenger Ships.
- III-1 regs. 1.4, 30 and 37 – Damage control drills on passenger ships.

1994 HSC Code.

Chapter 8 – Life saving appliances – Survival Craft and Rescue Boats. Paragraphs 8.10.1.5 and 8.10.1.6 are replaced.

2000 HSC Code

Chapter 8 – Life saving appliances – Survival Craft and Rescue Boats.
Paragraphs 8.10.1.5 and 8.10.1.6 are replaced.

LSA Code.

Chapter IV, paragraph 6.1.1.5 and 6.1.1.6 are replaced.

A number of amendments were made to non-mandatory instruments:-

MSC .81(70) – Testing of life-saving appliances.

SOLAS II-1 reg. 22.3 (MSC circular) – WT doors being left open on passenger ships.

Maritime Security.

Guidelines already exist on this subject in conjunction with the FAL Committee. It was agreed that more experience needs to be gained on this subject but that ship operators should incorporate risks into the ISPS Code and the ISM Code. Requirements. This should be done prior to the next annual verification after 1 January 2018.

SDC MATTERS.

Polar Code

A long discussion took place, all of which are reflected in the draft report. The outcome is as follows:

- change the title of this output to "Safety measures for non-SOLAS ships operating in polar waters"; and
- taking into account the urgency of this issue, move this existing output from the post-biennial agenda of the Committee to its agenda for the 2018-2019 biennium and the provisional agenda of MSC 99, with a view to taking a policy decision regarding the scope of application of the second phase of the Polar Code, its mandatory or recommendatory status and types of vessels to be addressed.

SSE MATTERS.

Safety Level Approach (SLA)

MSC 95, as part of the work plan for the development of the draft Interim guidelines for development and application of the IMO goal-based standards safety level approach, had agreed that MSC 98 should review the outcome of the SSE Sub-Committee on the development of functional requirements of SOLAS chapter III and the progress made at MSC 96 and MSC 97 and make a decision on the future direction of the SLA.

The Committee instructed the SSE Sub-Committee to consider the following principles when describing the necessary function of the draft functional requirements (expected performance) in quantitative terms:

- functional requirements ought to be formulated in a clear, unambiguous and objective manner;
- the expected performance should be expressed as precisely as possible, preferably in quantitative terms; and
- the information provided to this meeting should be used to define functional requirements in quantitative terms. \

Further submissions were requested to the next meeting of the SSE sub-committee.

Lifting Appliances and Winches.

After an in-depth discussion it was decided to adopt the following work plan:

- The SSE Sub-Committee will be instructed to continue to develop goals and functional requirements within the output "Requirements for onboard lifting appliances and winches", by using the Generic guidelines for developing IMO goal-based standards (MSC.1/Circ.1394/Rev.1);
- SSE 5 will report to MSC 99, as an urgent matter, the interim outcome of the development of goals and functional requirements for onboard lifting appliances and winches, together with the comments on the experience gained on the implementation of the Generic guidelines for developing IMO goal-based standards (MSC.1/Circ.1394/Rev.1); and
- SSE 6 will report to MSC 101 the final/updated results of the development of goals and functional requirements for the relevant SOLAS chapter that will include the corresponding requirements.

NEW WORK PROGRAMME ITEMS.

Amending SOLAS chapter III and the LSA Code.

By commenting on a request from a member state who wanted the committee to consider amendments to SOLAS III and the LSA Code, RINA proposed a number of changes that are needed to SOLAS Chapter III and the LSA Code. They are repeated below for clarity:-

Quote from the RINA paper:

- 1 there are no internationally accepted goal-based construction standards for survival craft;
- 2 SOLAS chapter III and the LSA Code do not make any reference to designed lifetime environmental exposure conditions for survival craft in the stowed position;
- 3 SOLAS chapter III and the LSA Code do not make any reference to designed deployment environmental exposure conditions;
- 4 SOLAS chapter III and the LSA Code do not make any reference to prototype test environmental exposure conditions for survival craft and rescue boats other than those specified in the LSA Code prototype testing section for marine evacuation systems and for launching appliances of fast rescue boats on ro-ro passenger ships;
- 5 SOLAS chapter III and the LSA Code do not make any reference to a required time of rescue or a minimum self-sufficiency time for survival craft. However, the Polar Code does specify a minimum time of rescue of 5 days but this will only apply to vessels operating in

polar waters;

6 the LSA Code permits a high density seating arrangement based on a seat space width of 430 mm and has no requirement for additional space for movement within the survival craft;

7 the seating space width of 430 mm required by the LSA Code is significantly less than the average shoulder width of the majority of people who are likely to need to use survival craft. Available statistical evidence indicates that the average shoulder width for Japanese males is 448 mm, 456 mm for European males, 474 mm for North American females and 509 mm for North American males (SSE 4/3, pages 9 and 10 of annex 4 (English version)). The maximum of these average widths is 509 mm, which represents an excess of 18% of the space required by the LSA Code;

8 the LSA Code prototype testing section does not specify a habitability trial for survival craft. Such a trial will be necessary to prove habitability for the required period of time for self-sufficiency (designed time of rescue) in both tropical and polar waters;

9 the LSA Code contains no provision for sanitary arrangements in survival craft;

10 the LSA Code prototype testing section does not specify that a timed boarding and seating trial is to be carried out in order to prove that the survival craft is capable of being launched with their full complement of persons and equipment within a period of 10 min from the time the abandon ship signal (SOLAS regulation III/31); and

11 the LSA Code prototype testing section does not specify that a trial is to be carried out to prove that rapid disembarkation is possible from survival craft.

End Quote

A long debate took place and almost everyone agreed that consideration needs to be given to these concerns, and others raised during the discussion. The debate eventually centred around the functional requirements and expected performance standards resulting from the GBS Safety Level Approach discussion which is on-going.

As a result it was agreed that work will not commence on this very important matter until the GBS/SLA work item has been completed. The new work programme item proposed and supported by RINA has been put on the post biennial agenda for SSE.

If the work had been put in hand now and sent SSE 5 in 2018 then it would take about five years to complete to the amendment stage. Now, we can expect to wait another two years. IMO decided that the amendments should enter into force 1 January 2024 if they are adopted by 1 January 2022.

Autonomous ships.

After a long debate the Committee agreed to regulatory scoping exercise and to develop a work plan.

ARRANGEMENTS FOR THE NEXT SESSION.

Working groups and Drafting groups will probably be set up on the following:

- Goal based standards.
- Maritime security
- Safety measures for non-SOLAS ships operating in Polar waters
- Amendments to mandatory instruments
- Maritime Autonomous surface ships

The next session, MSC 99, will be held between 16th to 25th May 2018. MSC 100 is arranged from 3 to 7 December 2018.

July 2017