INTERNATIONAL MARITIME ORGANIZATION

E

SUB-COMMITTEE ON SHIP SYSTEMS AND EQUIPMENT
1st session
Agenda item 8

SSE 1/8/1
2 January 2014
Original: ENGLISH

DEVELOPMENT OF A NEW FRAMEWORK OF REQUIREMENTS FOR SAFETY OBJECTIVES AND FUNCTIONAL REQUIREMENTS FOR THE APPROVAL OF ALTERNATIVE DESIGN AND ARRANGEMENTS FOR SOLAS CHAPTERS II-1 (PARTS C, D AND E) AND III

Consideration of outstanding items from document ISWG LRH/2/3

Submitted by ICS, BIMCO, IMCA, IPTA, ITF, INTERCARGO, INTERTANKO, NI, OCIMF, International Group of P&I Associations and SIGTTO

SUMMARY

Executive summary:	This document provides information on the gap analysis conducted by industry associations to support the development at Tier 4 and Tier 5 of the goal based framework for LSA
Strategic direction:	5.1
High-level action:	5.1.2
Planned output:	5.1.2.1
Action to be taken:	Paragraph 15
Related documents:	DE 43/18; DE 44/19; DE 45/27; DE 46/32; DE 47/25; DE 48/25; FP 50/21; DE 50/27; DE 51/28; DE 52/21; DE 53/3/4, DE 53/26; MSC 87/7/5, MSC 87/26; ISWG LRH/2, ISWG LHR/2/3; MSC 89/25; DE 56/WP3, DE 56/25; DE 57/WP.5 and DE 57/25

1 This document comments on document DE 57/25 and is submitted in accordance with the provisions of paragraph 6.12.5 of the *Guidelines on 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.4/Rev.2).

Introduction

2 The Industry lifeboat group (ILG) is comprised of shipping industry associations with particular interest in the operational use of life-saving appliances (LSA). Group members participated in the work of the Organization that culminated in the adoption by MSC 89 of amendments to SOLAS chapter III and to the International Life-Saving Appliance (LSA) Code as well as related *Guidelines for the Evaluation of Existing On-Load Release and Retrieval Systems* (MSC.1/Circ.1392).

3 During MSC 89 and subsequently after, ILG members have welcomed elements of the amendments to SOLAS chapter III and the LSA Code as well as the related *Guidelines for the Evaluation of Existing On-Load Release and Retrieval Systems amendments*, however, concern was expressed that not all aspects of document ISWG LHR/2/3 (submission by industry to the 2010 intersessional working group on lifeboat safety) had been appropriately or sufficiently considered or addressed.

4 Recognizing concern expressed by ILG members, it was agreed to refer ISWG LHR/2/3 to the Working Group on Life-Saving Appliances at DE 57. Due to time constraints the group was unfortunately unable to address this item.

5 Since DE 57, in order to assist with the further development of the goal-based framework for LSA by the Sub-Committee, ILG members have conducted a gap analysis referencing the amendments to SOLAS chapter III and to the LSA Code as well as related *Guidelines for the Evaluation of Existing On-Load Release and Retrieval Systems* (MSC.1/Circ.1392), against document ISWG LHR/2/3. The gap analysis included consideration of:

.1 Hook Stability;

.2 Single Point Failure;

.3 Standardization;

.4 Ergonomics;

.5 Vibration; and

.6 System Certification.

6 The gap analysis identified a list of LSA related topics (paragraph 10) considered by the co-sponsors as being appropriate for inclusion at Tiers 4 and 5 of the goal-based framework for LSA. The summary of the gap analysis is set out in the annex.

Discussion

7 Amendments to SOLAS chapter III and to the LSA Code adopted by MSC 87 are intended to stop accidents to lifeboats fitted with on-load release hooks caused by the hooks opening prematurely or without the operating mechanism being activated. The amendments primarily address the mechanical function of such release hooks together with the materials used in construction.

8 Document ISWG LHR/2/3 included proposals for the mechanical function of release hooks as well as the materials of construction. Some of the ILG proposals differ from those finally adopted, although the broad scope of the industry proposals and the SOLAS chapter III amendments are complementary. The co-sponsors, however, consider that some issues identified by industry were not sufficiently addressed by the SOLAS and other related amendments.

Methodology

9 The gap analysis conducted identifies 21 significant issues related to lifeboat safety and references these against SOLAS, the LSA Code and LSA related MSC circulars and draft resolutions. In conducting the gap analysis (summary report set out in the annex), the co-sponsors recognize that some of the issues noted in document ISWG LHR/2/3 have been included in the *Guidelines for Evaluation and Replacement of Lifeboat Release and Retrieval Systems* (MSC.1/Circ.1392). Despite this, it is considered that some aspects of these issues remain outstanding and should be included in the goal-based framework, under which the Sub-Committee will consider LSA matters in future.

10 The gap analysis considered the following criteria from document ISWG LHR/2/3 against SOLAS, the LSA Code and relevant guidelines:

1.	Fail Safe On Load Release, Hook Stability	12.	Single point failure
2.	Physical Examinations, Annual survey	13.	Fall Preventer device
3.	Latching & Lock	14.	Servicing and Maintenance
4.	Endurance	15.	Training and Competence
5.	Design Review	16.	Human Error
6.	Wear, Erosion, Corrosion	17.	Clarity of signage
7.	Vibration Test	18.	Operating Instructions
8.	Controls, Layout, Cable adjustment	19.	Controls and Indicators
9.	Holistic assessment and approval of overall system from davit deck supports to keel of boat.	20.	Ergonomics (Lifeboat)
10	Compatibility of components	21.	Standardization
11.	Fit for purpose		

11 When recording the outcome of the gap analysis, individual criteria have been recorded as being "Addressed", "Partially Addressed", "Referenced" and "Not Referenced". More detailed underpinning information that led to these simplified assessments is available should the Sub-Committee require. Items marked "Partially Addressed" were considered by the co-sponsors to be referenced in identified instruments, however, it was further considered that the topic was either not sufficiently or clearly specified or that interpretation of the reference could result in an unsatisfactory or unclear requirement.

Outcome

12 Many of the identified criteria from document ISWG LHR/2/3 are addressed at least partially in the referenced IMO instruments. However, one particular criteria (latching and lock) is not sufficiently addressed and several others are only partially addressed, perhaps most significant in this regard is the issue of "vibration". It is anticipated that when Tiers 4 and 5 of the goal-based framework for LSA are developed, the IMO instruments referenced in this gap analysis will inform much of the development of these tiers. It is therefore appropriate to suggest that the criteria identified in paragraph 10 are also considered for inclusion when further development of the goal based framework addresses these particular tiers of the framework.

Proposal

13 In reviewing the gap analysis, the co-sponsors identified some potential gaps between the mandatory requirements of SOLAS and the LSA Code and the referenced MSC circulars. The co-sponsors propose that the issues identified in paragraphs 9 and 10 and the summary of the gap analysis, as set out in the annex, are considered when addressing Tiers 4 and 5 of the goal-based framework for LSA.

14 This work has confirmed the use of gap analysis as a valuable tool when assessing the completeness of coverage across a range of IMO instruments. It is proposed that use of gap analysis techniques is considered by the Organization in the further development of goal-based criteria for LSA.

Action requested of the Sub-Committee

15 The Sub-Committee is invited to consider the information provided and the proposals in paragraphs 13 and 14 and take action as appropriate.

***

ANNEX

RESULT SUMMARY - GAP ANALYSIS

	Issue	(ISWG LRH/2/3)	SOLAS Chapter III & LSA Code	Other Relevant IMO Circulars & Guidelines						GBS REFERENCE (DE 57/WP.5 - Annex 1)
				Draft MSC resolution (DE 57/25/Add.1)	MSC.1/Circ.1205	MSC.1/Circ.1206/Rev. 1	MSC.1/Circ.1277	MSC.1/Circ.1392	MSC.1/Circ.1419	
1	**Fail Safe On Load Release, Hook Stability**	Pg 3 para9 to 11, pg 4 para15, annex 1 para 10/12 Annex 4 para 47/49 & 52 to 61	**ADDRESSED**	**Not Referenced**						Functional requirement .4; Tier IV parameters .2 to .4
2	**Physical Examinations, Annual survey**	Annex 1 para 22 to 26 & 31 Annex 3, Annex 4 para 41 to 45	**Partially Addressed**	**Referenced**	**Not Referenced**			**Referenced**	**Not Referenced**	Functional requirement .4; Tier IV parameters .2 to .5
3	**Latching & Lock**	Pg 3,p.8, annex1 para 30/31 annex 2, annex 4 para 7/11 & 81	**Partially Addressed**	**Referenced**	**Not Referenced**					Functional requirement .4; Tier IV parameters .3 & .4
4	**Endurance**	Annex 1 pg 2 para 6 &17-21 Annex 4 para 26 to 32 & 62 to 71	**ADDRESSED**	**Not Referenced**				**Referenced**	**Not Referenced**	Functional requirement .4; Tier IV parameters .2 to .6
5	**Design Review**	Annex 1 para 9 Annex 4 para 5/23 & 72 to 79 & 90 to 92	**Addressed by Actions Required in MSC.1/Circ.1392**	**Not Referenced**				**ADDRESSED**	**Not Referenced**	Functional requirement .4; Tier IV parameters .2 to .5
6	**Wear, Erosion, Corrosion**	Pg 3 p9 to 12, annex1 para 29	**Partially Addressed**	**Referenced**	**Not Referenced**					Functional requirement .4; Tier IV parameters .4 & .5
7	**Vibration Test**	Annex 4, para 34 & 70	**Partially Addressed**	**Not Referenced**						Functional requirement .4; Tier IV parameter .4
8	**Controls, Layout, Cable adjustment**	Pg4 para16/17, annex1 pg 2 para 5/6/10 & 22/26 Annex4 para 29	**Partially Addressed**	**Referenced**	**Not Referenced**					Functional requirement .4; Tier IV parameter .2
9	**Holistic assessment and approval of overall system from davit deck supports to keel of boat.**	Annex1 para 25/29	**Partially Addressed in LSA Code**	**Not Referenced**						Functional requirements .1 to .6; Tier IV parameters .1 to .6
10	**Compatibility of components**	Annex1 para 28/29 Annex 4 para 93.14	**Partially Addressed in LSA Code**	**Not Referenced**						Functional requirements .4 to .6; Tier IV parameters .2 to .4
11	**Fit for purpose**	Annex 4 para 86/87	**NOT ADDRESSED**	**Not Referenced**						Functional requirements .1 to .6; Tier IV parameters .1 to .6
12	**Single point failure**	Annex 4 para 93.6 to 9	**NOT ADDRESSED**	**Not Referenced**						Functional requirements .3 to .5; Tier IV parameters .2 to .4
13	**Fall Preventer device**	Pg 4 para 18/19/21 Annex 4, 82/84	**Not Addressed**	**ADDRESSED**	**Not Referenced**					Functional requirement .4; Tier IV parameters .4 to .5
14	**Servicing and Maintenance**	Pg 4 para 19	**Partially Addressed**	**ADDRESSED**	**Not Referenced**					Functional requirements .3 to .5; Tier IV parameter .5
15	**Training and Competence**	Annex 4 para 47 & 86 to 89 & 93.3	**Partially Addressed**	**ADDRESSED**	**Not Referenced**					
16	**Human Error**	Pg 4 para 19 Annex 4 para 47 & 86 to 89 & 93.3	**Partially Addressed**	**Not Referenced**						Functional requirements .3 to .5; Tier IV parameters .2, .4 & .5
17	**Clarity of signage**	Pg 4 para 13	**ADDRESSED**	**Not Referenced**						Functional requirements .1 & .4; Tier IV parameter .2
18	**Operating Instructions**	Pg 4 para 13	**ADDRESSED**	**Referenced**	**Not Referenced**					Functional requirements .1 & .4; Tier IV parameter .2
19	**Controls and Indicators**	Pg 4 para 13	**ADDRESSED**	**Not Referenced**						Functional requirements .1 & .4; Tier IV parameter .2
20	**Ergonomics (Lifeboat)**	Annex 4 para 47 & 93.12	**NOT ADDRESSED**	**Not Referenced**						Functional requirements .3 to .5; Tier IV parameters .1 & .2
21	**Standardisation**	Annex 4 para 88/89 & 93	**NOT ADDRESSED**	**Not Referenced**						Functional requirements .3 to .5; Tier IV parameters .1 to .4