Global Maritime Distress and Safety System (GMDSS)
Consideration of New GMDSS Satellite Provider

Submitted by IHB

SUMMARY

Executive Summary: This document provides details for a new performance standard for shipborne GMDSS equipment, which are relevant to WWNWS-SC

Action to be taken: Paragraph 2.

Related documents: MSC 95/19/10 dated 3 March 2015

1. See attached document.

2. The Sub-Committee is invited to note the information provided and take action as appropriate.

INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
95th session
Agenda item 19

MSC 95/19/10
3 March 2015
Original: ENGLISH

WORK PROGRAMME

GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)
CONSIDERATION OF NEW GMDSS SATELLITE PROVIDER

Proposal for an unplanned output for a new performance standard for shipborne GMDSS equipment

Submitted by the United States

SUMMARY

Executive summary:	This document identifies the need for a new generic performance standard for shipborne GMDSS equipment to accommodate additional providers of GMDSS satellite services and proposes an unplanned output for the Navigation, Communications and Search and Rescue Sub-Committee to draft the standard
Strategic direction:	5.1, 5.2
High-level action:	5.2.4, 5.2.5
Planned output:	5.2.4, 5.2.5
Action to be taken:	Paragraph 15
Related documents:	MSC 92/9/2, MSC 92/26; NCSR 1/12, NCSR 1/28; MSC 94/21; resolution A.1001(25); MSC.1/Circ.1414; resolution A.886(21); COMSAR 7/23; resolution A.1060(28); resolution A.1061(28); MSC-MEPC.1/Circ.4/Rev.3 and MSC-MEPC.7/Circ.1

Introduction

1 This document identifies the need for a new generic performance standard for shipborne GMDSS equipment and proposes a new unplanned output for the Navigation, Communications and Search and Rescue Sub-Committee to undertake this work at its third session. This proposal is submitted according to the requirements of MSC-MEPC.1/Circ.4/Rev.3 and MSC-MEPC.7/Circ.1. It is expected that this work can be completed by the Sub-Committee in a single session, and it is expected that the effect upon the overall workload of the Sub-Committee will be minimal. There will be no cost to the shipping industry.

IMO Objectives

2 The proposed output will contribute to Strategic Directions 5.1 (ensuring that all systems related to enhancing the safety of human life at sea are adequate) and 5.2 (enhancing technical, operational and safety management standards). It will also contribute to High-level Actions 5.2.4 (keep under review measures to improve navigational safety, including ships' routeing, ship reporting and monitoring systems, vessel traffic services, requirements and standards for shipborne navigational aids and systems and LRIT), and 5.2.5 (monitor and evaluate the operation of the GMDSS).

Compelling need

3 SOLAS regulation IV/14 requires that radio equipment be type approved by administrations and conform to performance standards not inferior to those adopted by the Organization, and resolution A.886(21) confirms that the function of adopting and amending performance standards and technical specifications is done by the Maritime Safety Committee on behalf of the Organization.

4 There are currently several performance standards for shipborne GMDSS communication equipment but those which apply to ship earth stations, such as resolutions MSC.130(75) and MSC.306(87), reflect the characteristics of the Inmarsat system and the evolution over time of the different services and ship earth stations operating in that system. There needs to be a new performance standard to apply to ship earth stations operating in mobile satellite systems recognized according to the criteria of resolution A.1001(25).

5 The application for recognition of the Iridium system as part of the GMDSS (MSC 92/9/2 and NCSR 1/12) is being considered under the NCSR Sub-Committee's Agenda Item "Developments in maritime radiocommunications systems and technology." COMSAR 7 agreed that no submissions concerning performance standards for any radiocommunication equipment should be accepted and/or considered under this agenda item (COMSAR 7/23, paragraphs 11.5 and 11.6), and NCSR 1/28 reiterated that statement. This current status needs to be remedied to avoid the situation where a new GMDSS provider is recognized but it does not have approved equipment to provide service.

Analysis of the issue

6 The United States proposes an unplanned output for the biennium 2016-2017, for the Navigation, Communications and Search and Rescue Sub-Committee to conduct this work with a target date for completion of 2016.

7 A working draft of the performance standard will be submitted to the Sub-Committee, for its review and editing at its third session. Because that working draft will take account of existing IMO performance standards where they are relevant, with necessary additions, deletions and adaptations to take account of the specific requirements set forth in resolution A.1001(25), it would be expected that the Sub-Committee would be able to complete this work of creating the performance standard in a single session, and would be able to recommend that the Committee adopt the new performance standard at its 96th or 97th session.

8 This approach would align that work with the expected consideration by the Sub-Committee of IMSO's technical and operational assessment of the Iridium system and so the increase in the overall workload of the Sub-Committee at its third session would therefore be minimal.

Analysis of implications

9 There will be no additional administrative requirements or burdens and there will be no cost to the shipping industry. The Administrative Checklist (MSC-MEPC.1/Circ.4/Rev.3, annex 5) is attached in annex 2.

Benefits

10 The proposed output will ensure the complete and consistent application of the Organizations performance standards for shipborne radiocommunications equipment intended for use in the GMDSS to ship earth stations operating in the Iridium non-geostationary mobile satellite system.

Industry standards

11 The mobile satellite radio equipment is already standardized through appropriate standardization bodies such as the European Telecommunications Standards Institute (ETSI). The development of specific IEC methods of testing and required results to give effect to the proposed IMO performance standard for shipborne equipment is work in progress; it will be a relatively minor detail to IMO performance standard and IEC standard to cross-refer when adopted. By the time of the Committee's ninty-fifth session, it is anticipated that work at IEC being underway and by the time of the Sub-Committee's third session, a mature draft will be in circulation.

Output

12 The proposed output is for the Sub-Committee at its third session to draft a new generic performance standard for ship earth stations operating in the GMDSS, and to propose it for adoption by the Committee at MSC 96 or MSC 97, as appropriate.

Human element

13 This proposal is consistent with the goals of the Organization and is based upon the vision and principles described in resolution A.947(23). The completed human element checklist from MSC-MEPC.7/Circ.1 is attached in annex 1.

Priority/urgency

14 It is proposed that the new output be added to the work programme and agenda of the Navigation, Communications and Search and Rescue Sub-Committee with the necessary level of priority to ensure completion of the work in 2016 (one session). Because of the current consideration of the Iridium system to be recognized as a GMDSS provider, this matter is considered a high priority.

Action requested of the Committee

15 The Committee is invited to add to the work programme of the NCSR Sub-Committee a new output for a "Performance Standard for ship earth stations participating in the GMDSS operating in accordance with resolution A.1001(25)."

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ANNEX 1

CHECKLIST FOR CONSIDERING HUMAN ELEMENT ISSUES BY IMO BODIES

Instructions: If the answer to any of the questions below is: (A) YES, the preparing body should provide supporting details and/or recommendation for further work. (B) NO, the preparing body should make proper justification as to why human element issues were not considered. (C) NA (Not Applicable) – the preparing body should make proper justification as to why human element issues were not considered applicable.	
Subject Being Assessed: (e.g. Resolution, Instrument, Circular being considered) An updated performance standard for shipborne GMDSS equipment to accommodate additional providers of GMDSS satellite services	
Responsible Body: (e.g. Committee, Sub-committee, Working Group, Correspondence Group, Member State) Navigation, Communications, and Search and Rescue (NCSR) Sub-Committee	
1. Was the human element considered during development or amendment process related to this subject?	☑ Yes ☐ No ☐ NA
2. Has input from seafarers or their proxies been solicited?	☐ Yes ☑ No ☐ NA
3. Are the solutions proposed for the subject in agreement with existing instruments? (Identify instruments considered in comments section)	☑ Yes ☐ No ☐ NA
4. Have human element solutions been made as an alternative and/or in conjunction with technical solutions?	☑ Yes ☐ No ☐ NA
5. Has human element guidance on the application and/or implementation of the proposed solution been provided for the following:	
• Administrations?	☑ Yes ☐ No ☐ NA
• Ship owners/managers?	☑ Yes ☐ No ☐ NA
• Seafarers?	☑ Yes ☐ No ☐ NA
• Surveyors?	☐ Yes ☐ No ☑ NA
6. At some point, before final adoption, has the solution been reviewed or considered by a relevant IMO body with relevant human element expertise?	☑ Yes ☐ No ☐ NA
7. Does the solution address safeguards to avoid single person errors?	☑ Yes ☐ No ☐ NA
8. Does the solution address safeguards to avoid organizational errors?	☑ Yes ☐ No ☐ NA
9. If the proposal is to be directed at seafarers, is the information in a form that can be presented to and is easily understood by the seafarer?	☑ Yes ☐ No ☐ NA
10. Have human element experts been consulted in development of the solution?	☐ Yes ☐ No ☑ NA
11. **HUMAN ELEMENT**: **Has the proposal been assessed against each of the factors below?**	
☐ CREWING. The number of qualified personnel required and available to safely operate, maintain, support, and provide training for system.	☐ Yes ☐ No ☑ NA
☐ PERSONNEL. The necessary knowledge, skills, abilities, and experience levels that are needed to properly perform job tasks.	☑ Yes ☐ No ☐ NA
☐ TRAINING. The process and tools by which personnel acquire or improve the necessary knowledge, skills, and abilities to achieve desired job/task performance.	☑ Yes ☐ No ☐ NA

☐ OCCUPATIONAL HEALTH AND SAFETY. The management systems, programmes, procedures, policies, training, documentation, equipment, etc. to properly manage risks.	☐ Yes ☐ No ☑ NA
☐ WORKING ENVIRONMENT. Conditions that are necessary to sustain the safety, health, and comfort of those on working on board, such as noise, vibration, lighting, climate, and other factors that affect crew endurance, fatigue, alertness and morale.	☐ Yes ☐ No ☑ NA
☐ HUMAN SURVIVABILITY. System features that reduce the risk of illness, injury, or death in a catastrophic event such as fire, explosion, spill, collision, flooding, or intentional attack. The assessment should consider desired human performance in emergency situations for detection, response, evacuation, survival and rescue and the interface with emergency procedures, systems, facilities and equipment.	☑ Yes ☐ No ☐ NA
☐ HUMAN FACTORS ENGINEERING. Human-system interface to be consistent with the physical, cognitive, and sensory abilities of the user population.	☑ Yes ☐ No ☐ NA
Comments: GMDSS shipborne equipment performance standards are currently provided in SOLAS regulation IV/14. This proposal would update the GMDSS equipment performance standard to accommodate new providers of GMDSS satellite services.	

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ANNEX 2

CHECKLIST FOR IDENTIFYING ADMINISTRATIVE REQUIREMENTS AND BURDENS

<table>
<tr><td colspan="3">The Checklist for Identifying Administrative Requirements and Burdens should be used when preparing the analysis of implications required of submissions of proposals for inclusion of unplanned outputs. For the purpose of this analysis, the terms "administrative requirements" and "burdens" are defined as in resolution A.1043(27), i.e. administrative requirements are defined as an obligation arising from future IMO mandatory instruments to provide or retain information or data, and administrative burdens are defined as those administrative requirements that are or have become unnecessary, disproportionate or even obsolete.

Instructions:

(A) If the answer to any of the questions below is YES, the Member State proposing an unplanned output should provide supporting details on whether the burdens are likely to involve start-up and/or ongoing cost. The Member State should also make a brief description of the requirement and, if possible, provide recommendations for further work (e.g. would it be possible to combine the activity with an existing requirement?).
(B) If the proposal for the unplanned output does not contain such an activity, answer NR (Not required).</td></tr>
<tr><td>1. Notification and reporting?
Reporting certain events before or after the event has taken place, e.g. notification of voyage, statistical reporting for IMO Members, etc.</td><td>NR
XX</td><td>Yes
Start-up
Ongoing</td></tr>
<tr><td colspan="3">Description: (if the answer is yes)</td></tr>
<tr><td>2. Record keeping?
Keeping statutory documents up to date, e.g. records of accidents, records of cargo, records of inspections, records of education, etc.</td><td>NR
XX</td><td>Yes
Start-up
Ongoing</td></tr>
<tr><td colspan="3">Description: (if the answer is yes)</td></tr>
<tr><td>3. Publication and documentation? Producing documents for third parties, e.g. warning signs, registration displays, publication of results of testing, etc.</td><td>NR
X</td><td>Yes
☐ Start-up
☐ Ongoing</td></tr>
<tr><td colspan="3">Description: (if the answer is yes)</td></tr>
<tr><td>4. Permits or applications?
Applying for and maintaining permission to operate, e.g. certificates, classification society costs, etc.</td><td>NR
X</td><td>Yes
☐ Start-up
☐ Ongoing</td></tr>
<tr><td colspan="3">Description: (if the answer is yes)</td></tr>
<tr><td>5. Other identified burdens?</td><td>NR
X</td><td>Yes
☐ Start-up
☐ Ongoing</td></tr>
<tr><td colspan="3">Description: (if the answer is yes)</td></tr>
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ANNEX 3

CHECK/MONITORING SHEET FOR THE PROCESS OF AMENDMENTS TO THE CONVENTION AND RELATED MANDATORY INSTRUMENTS (PROPOSAL/DEVELOPMENT)

Part I – Submitter of the proposal (refer to section 3.2.1.1)*	
1	*MSC 95/19/10 Submitted by the United States*
2	*MSC 95*
	3 June 2015
Part II – Details of the proposed amendment(s) or new mandatory instrument (refer to sections 3.2.1.1 and 3.2.1.2)*	
1	*High-level action plan:*
	5.2.4 and 5.2.5
2	*Planned output:*
	New unplanned output
3	*Recommended type of amendments* (MSC.1/Circ.1481) (delete as appropriate)
	• Update
4	*Intended instrument(s) to be amended (SOLAS, LSA code, etc.)*
	SOLAS regulation IV/14
5	*Intended application (scope, size, type, tonnage/length restriction, service (International/non-international), activity, etc.)*
	GMDSS Shipborne Equipment
6	*Application to new/existing ships (i.e. if intended to be a retro-active application)*
	NA
7	*Proposed coordinating sub-committee*
	Sub-Committee on Navigation, Communications, and Search and Rescue
8	*Anticipated supporting sub-committees*
	None
9	*Time scale for completion*
	One session – NCSR 3
10	*Expected date(s) for entry into force and implementation/application*
	1 January 2017
11	*Any relevant decision taken or instruction given by the Committee*