

**INTERNATIONAL REGULATIONS COMMISSION BRIEF FOR THE THIRD SESSION OF**  
**THE SUB-COMMITTEE ON NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE**

## **1 GENERAL**

The Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) held its third session from 29 February to 4 March 2016 under the chairmanship of Mr. R. Lakeman (the Netherlands). The Vice-Chairman, Mr. N. Clifford (New Zealand), was also present.

The provisional agenda was adopted.

## **2 DECISIONS OF OTHER IMO BODIES**

The Sub-Committee noted the decisions and comments pertaining to its work made by LEG 102, MEPC 68 and MSC 95.

## **3 ROUTING MEASURES AND MANDATORY SHIP REPORTING SYSTEMS**

The Sub-Committee approved the following new, and amendments to existing, TSSs, as set out in the final report of the meeting, which the Committee was invited to adopt:

- establishment of new TSSs "Off Southwest Australia";
- establishment of a new TSS "In the Corsica Channel";
- amendments to the existing TSS "In the Approaches to Hook of Holland and at North Hinder" and associated measures, superseding the existing precautionary areas "In the approaches to Hook of Holland and at North Hinder";
- amendments to the existing TSS "At West Hinder"; and
- amendments to the existing TSS "In Bornholmssgat"

These are to be disseminated by means of a COLREG circular.

The sub committee also approved amendments to an existing area to be avoided off the coast of Ghana in the Atlantic Ocean, new routing measures in windfarm Borssele and new two-way routes and precautionary areas in the approaches to the Schelde estuary, superseding the existing precautionary area in the vicinity of Thornton and Bligh Banks.

## **4 AMENDMENTS TO THE GENERAL PROVISIONS ON SHIPS' ROUTING (RESOLUTION A.572 (14)) ON ESTABLISHING MULTIPLE STRUCTURES AT SEA**

Noting that the work on this output was completed, the Sub-Committee agreed to invite the Committee to delete this agenda item.

## **5 RECOGNITION OF GALILEO AS A COMPONENT OF THE WWRNS**

The Sub-Committee considered the information provided on the status and performance of the Galileo GNSS and on the provision of its initial services in view of its recognition as a component of the World-Wide Radio Navigation System (WWRNS).

It was noted that it was the intention to present a promulgation letter to the Secretary-General before MSC 96, specifying that the Galileo Open Service would be:

- offered on a continuous, worldwide and non-discriminatory basis, and all necessary measures for the foreseeable future would be taken to maintain the integrity, reliability and availability of the Open Service and Search and Rescue (SAR) service;
- free of direct user fees; and
- offered, subject to availability of funds under the European Union's post-2020 multi-annual financial framework, for a minimum of 20 years, and that the European Union is expected to provide at least six years' notice prior to any termination of operations.

The Sub-Committee further noted that there was no plan to make the use of Galileo for maritime navigation mandatory, or to discriminate the use of other global constellations, but rather to encourage a broader use of multi-constellation solutions for the benefits of all users and, as such, improving safety at sea.

The Sub-Committee also noted that, as a further feature, Galileo included a freely available global SAR service that would form a key element of the Cospas-Sarsat MEOSAR system. It was noted that satellites were equipped with a transponder able to relay identified distress signals from maritime users to Rescue Coordination Centres (RCCs), with enhanced accuracy of distress beacon localization and, in addition, offering a new service of acknowledgement of the distress call by the RCC.

The Sub-Committee agreed that the necessary information had been provided and to advise the Committee to:

- recognize Galileo as a future component of the WWRNS, subject to formal and instruct the Secretariat to prepare and issue the associated SN circular; and
- delete this agenda item.

## **6 ADDITIONAL MODULES TO THE REVISED PERFORMANCE STANDARDS FOR INTEGRATED NAVIGATION SYSTEMS (INS) (RESOLUTION MSC252 (83)) RELATING TO THE HARMONIZATION OF BRIDGE DESIGN AND DISPLAY OF INFORMATION**

The item concerned the development of Integrated Navigation Systems (INS) performance standards that are type approved for convention shipping and is of little significance to World Sailing.

## **7 UPDATES TO THE LRIT SYSTEM**

This item is of no relevance to World Sailing.

## **8 GUIDELINES ASSOCIATED WITH MULTI-SYSTEM SHIPBORNE RADIONAVIGATION RECEIVERS DEALING WITH THE HARMONIZED PROVISION OF PNT DATA AND INTEGRITY INFORMATION**

NCSR recognised the need to develop guidelines for the harmonized provision of both PNT data and integrity information in support of performance standards. As a result a correspondence group has been established to develop guidelines and to submit a report to NCSR 4.

## **9 GUIDELINES FOR THE HARMONIZED DISPLAY OF NAVIGATION INFORMATION RECEIVED VIA COMMUNICATIONS EQUIPMENT**

This item relates to the display of navigation related information on shipborne displays in order to reduce error and improve safety. After some consideration, the Sub-Committee invited Norway to

coordinate a joint proposal from interested Member Governments and international organizations to NCSR 4 containing draft guidelines for the harmonized display of navigation information.

## **10 REVISED GUIDELINES AND CRITERIA FOR SHIP REPORTING SYSTEMS**

After some discussion, the Sub-Committee invited interested Member Governments and organizations to submit proposals to NCSR 4 containing draft amendments to the Guidelines and criteria for ship reporting systems (resolution MSC.43 (64), as amended) for consideration.

## **11 ANALYSIS OF DEVELOPMENTS IN MARITIME RADIOCOMMUNICATION SYSTEMS AND TECHNOLOGY**

The Sub-Committee considered the report provided by IMSO on the technical and operational assessment of the application by the United States to recognize and use the Iridium mobile satellite system in the GMDSS, along with the proposal submitted by the United States on a way forward, through a two-step process, for completing the recognition of Iridium as a GMDSS satellite service provider.

During discussion, the following views were expressed:

- the majority of the delegations supported the outcomes of the technical and operational assessment conducted by IMSO in respect to the recognition and use of the Iridium mobile satellite system in the GMDSS, as well as the two-step approach;
- some delegations indicated that compliance with all the criteria should be demonstrated before recognition and that Iridium should be encouraged to make further progress;
- other delegations were of the opinion that not all the requirements could be fulfilled without being a system part of the GMDSS;
- The criteria for the provision of mobile satellite communication systems in GMDSS were originally based on a geostationary satellite system and, as such, needed to be revised, preferably as part of the GMDSS review, to facilitate the assessment and evaluation of future potential satellite communication providers in the GMDSS;
- interoperability of any additional mobile satellite system with existing shipborne and shore-based equipment should be taken into consideration, bearing in mind any possible consequential financial implications and implementation requirements;
- issues related to frequency allocations and frequency interferences between Iridium and other systems should be addressed prior recognition to ensure long-term sustainability;
- concerns to be resolved on the implementation of the dissemination of MSI messages which needed to be demonstrated before the system could become operational; and
- there were increasing requests from ship owners for the provision of satellite GMDSS services in high latitudes.

In his summing up, the Chairman indicated that:

- there was broad support for the incorporation of Iridium into the GMDSS as well as for the two-step-approach, whereby views were expressed that Iridium could be incorporated in the GMDSS, upon confirmation that the outstanding issues were resolved;

- concerns were expressed on the amount of outstanding issues and on matters possibly not included in the criteria, which should be brought to the attention of the Committee;
- in accordance with the proposed two-step approach, Iridium would not be recognized at this stage and, therefore, there would not be a need for a resolution;
- the aim was to agree at this session that Iridium could be incorporated in the GMDSS upon confirmation that the outstanding issues were resolved;
- this agreement would be endorsed by the Committee, providing Iridium a basis to further resolve the outstanding issues; and
- Iridium would, therefore, be required to test all elements of the system on a trial basis to prove operational capability and compliance with the outstanding issues.

The delegation of China made note that there exists frequency interference between the Iridium system and other systems. If the frequency interference was not effectively resolved, this will severely impact the operation of relevant systems. Therefore, the Sub-Committee should first address the issue of frequency coordination to eliminate any interference between relevant systems before further consideration on Iridium's participation in the GMDSS.

After an in-depth discussion, the Sub-Committee agreed that Iridium could be incorporated into the GMDSS subject to compliance with outstanding issues. The Sub-Committee invited the Committee to endorse this view, with the understanding that it, based on the evaluation reports from IMSO, would advise the Committee on final recognition, when the issues identified have been complied with.

## **12 PERFORMANCE STANDARDS FOR SHIPBORNE GMDSS EQUIPMENT TO ACCOMMODATE ADDITIONAL PROVIDERS OF GMDSS SATELLITE SERVICES**

NCSR3 considered a proposal from the United States providing draft performance standards for shipborne GMDSS equipment to accommodate additional providers of GMDSS satellite services.

During discussion, the following views were expressed indicating general support to the proposal, and that:

- some of the requirements should be carefully considered from the technical point of view and with regard to applicability to existing equipment;
- consideration should be given to the development of generic performance standards or system-based performance standards; and
- the performance standards should be completed at this session to avoid consequent delays to further dependent developments.

After consideration, the Sub-Committee, noting the general support for the development of the related performance standards, referred the document to the Communications Working Group for detailed consideration.

## **13 INTERCONNECTION OF NAVTEX AND INMARSAT SAFETYNET RECEIVERS AND THEIR DISPLAY ON INTEGRATED NAVIGATION DISPLAY SYSTEMS**

The Chairman indicated that it would be appropriate to wait for the outcome of items 6 and 9 before concluding or finalizing this item. Consequently, the Sub-Committee invited the United States and interested Member Governments and/or organizations, if required, to submit revised proposals, as appropriate, to NCSR 4.

## **14 COMPLETION OF THE DETAILED REVIEW OF THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)**

The Sub-Committee considered the report of the eleventh meeting of the Joint IMO/ITU Experts Group on Maritime radiocommunication matters, which took place from 5 to 9 October 2015 which included information on the completion of the detailed review of the Global Maritime Distress and Safety System.

The Sub-Committee endorsed the draft outcome of the Detailed Review of the GMDSS and invited the Committee (MSC) to approve the outcome of the Detailed Review of the GMDSS and the continuation of the project to develop the Modernization Plan. The relevant parts of the modernisation plan provides for:

- Additional satellite systems in the GMDSS (Iridium),
- Redefinition of Sea Area A3 as an area excluding A1 and A2 within the coverage of a recognized mobile-satellite communication service supported by the ship earth station carried on board in which continuous alerting is available,
- The role of MF/HF for ships that do not subscribe to a satellite service and the removal of NBDP as a carriage requirement for distress follow-up communications in Sea Areas A3 and A4,
- The move of communications requirements for ships and life-saving appliances in SOLAS chapter III to chapter IV,

There is an interesting statement at paragraph 9 of the modernisation report that states:

*Requirements for alerting and locating equipment are based on the concept that radio and/or EPIRBs will provide the alert and location of a vessel in distress. SARTs, pyrotechnic distress signals, highly visible colours for survival craft and flotation equipment, and locating lights are all intended to assist rescuers on-scene or close to the scene to locate survivors.*

The different concepts of alert and location are now recognised by IMO and there is now considerable interest in the use of AIS-SART as a location device. As a result A new work item beginning in 2016 may result in a performance standard for EPIRBs that have both 121.5 MHz homing signals and AIS location.

In anticipation that MSC would approve the continuation of the project, the Sub-Committee established a Correspondence Group on the Modernization of the GMDSS, under the coordination of the United States (Mr. Robert L. Markle, President of the Radio Technical Commission for Maritime Services (RTCM)).

## **15 UPDATING OF THE GMDSS MASTER PLAN AND GUIDELINES ON MSI (MARITIME SAFETY INFORMATION) PROVISIONS**

The Sub-committee received the annual report from the IMO NAVTEX Coordinating Panel and noted the outcome of the seventh session of the IHO World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC)

For information, the Sub-Committee endorsed the draft amendments to the International SafetyNet Manual which come into force on 1 January 2018. A draft circular will be submitted for approval by the MSC. A copy can be provided on request.

The Sub-Committee also endorsed the draft amendments to the NAVTEX Manual (6<sup>th</sup> edition) which will come into force on 1 Jan 2018 and instructed the Secretariat to prepare the associated draft MSC circular for consideration and approval by MSC. A copy can be provided on request.

## **16 RESPONSES TO MATTERS RELATED TO THE RADIOCOMMUNICATION ITU-R STUDY GROUP**

The NCSR considered the uncontrolled novel use of AIS technology and produced a draft liaison statement to ITU-R WP5B to note and consider the following:

**Expanded usage of AIS devices.** The use of AIS for safety of navigation (AIS 1 and AIS 2) should be secured and other devices should be used on alternative frequencies. A closed list of "agreed devices" which were allowed to operate on AIS 1 and AIS 2 should be created and all other devices should operate on alternative frequencies. To support this, manufacturers should be offered alternative frequencies to allow for the implementation of the aforementioned views.

**Safety of navigation implications for ships.** The Sub-Committee was of the view that unregulated targets should be displayed differently than normal AIS targets, to clearly indicate the type of response required from the crew on the ship.

**Identification of uncontrolled AIS devices.** The Sub-Committee noted that some Administrations had expressed concerns about the multitude of new devices available which use AIS technology, without adequate provision for assignment and use of identities in the maritime mobile service.

## **17 RESPONSES TO MATTERS RELATED TO ITU WORLD RADIOCOMMUNICATION CONFERENCE**

There is nothing of interest to report under this item.

## **18 MEASURES TO PROTECT THE SAFETY OF PERSONS RESCUED AT SEA**

This concerned large scale rescue operations at sea and existing guidance on ensuring the safety and security of seafarers and rescued persons.

## **19 ANALYSIS OF INFORMATION ON DEVELOPMENTS IN INMARSAT AND COSPAS-SARSAT**

NCSR noted Inmarsat's intention to close the Inmarsat F77 service by 1 December 2020. In this context, it was also noted that a submission to NCSR 4 would be made to seek approval to incorporate the Inmarsat Fleet Broadband service into the GMDSS.

Inmarsat F77 service provides two-way distress voice communication service for the GMDSS. In addition to distress, it also supports urgency and safety priority communications in ship-to-shore and shore-to-ship directions. The voice service provided by Inmarsat F77 system is more than adequately covered by the more recent FleetBroadband system which provides voice distress and urgency priority services. However, FleetBroadband system is not yet GMDSS-compliant although Inmarsat has expressed its intention to seek approval by IMO for its use in the GMDSS.

IMSO will continue to work with Inmarsat to ensure that a sufficient programme of public information, similar to that undertaken for the closure of Inmarsat-B, is conducted in relation to the closure of the Inmarsat F77 service.

## **20 REVISED PERFORMANCE STANDARDS FOR EPIRBs OPERATING ON 406 MHz (RESOLUTION A.810 (19)) TO INCLUDE COSPAS-SARSAT MEOSAR AND SECOND GENERATION BEACONS**

This item reflects proposed amendments to the MEOSAR deployment in approximately 2018, add second generation beacons, and update out-dated references. In addition the UK noted that the

current EPIRB specification includes a Return Link Service (RLS) and Return Link Message (RLM) to signal to an EPIRB that the SAR services are aware, however neither the specification nor the draft performance standard includes an indicator to inform the user. This is to be taken forward at NCSR4.

## **21 GUIDELINES ON HARMONIZED AERONAUTICAL AND MARITIME SEARCH AND RESCUE PROCEDURES, INCLUDING SAR TRAINING MATTERS**

No substantial points of interest or concern for World Sailing.

## **22 FURTHER DEVELOPMENT OF THE GLOBAL SAR PLAN FOR THE PROVISION OF MARITIME SAR SERVICES**

This item was about information on modifications to the COMSAR module in GISIS and is of no concern to World Sailing.

## **23 AMENDMENTS TO THE IAMSAR MANUAL**

Nothing of interest to World Sailing.

## **24 REVISED GUIDELINES FOR PREPARING PLANS FOR COOPERATION BETWEEN SEARCH AND RESCUE SERVICES AND PASSENGER SHIPS (MSC.1/CIRC.1079)**

NCSR will consider potential ways of improving and simplifying the system for distributing SAR plans for cooperation during NCSR4.

## **25 UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY, AND ENVIRONMENT RELATED CONVENTIONS**

Nothing of interest to World Sailing.

## **26 BIENNIAL STATUS REPORT AND PROVISIONAL AGENDA FOR NCSR 4**

The Sub-Committee noted the long list of potential items to be considered by Working and Drafting Groups at its next session, and, in particular, the amount of items on navigation, including e-navigation related matters (NCSR 3/WP.2, annex 3).

Having considered ways to provide more time for the Navigation Working Group to consider other matters than ships' routeing, the Sub-Committee agreed with the proposal by the Chairman to request authorization of the Committee for the Sub-Committee to establish an Expert Group on ships' routeing at future sessions, as appropriate, taking into account the submissions received on navigation related subjects.

The fourth session of NCSR had been scheduled to take place from 6 to 10 March 2017.

## **27 ELECTIONS OF CHAIRMAN AND VICE-CHAIRMAN FOR 2017**

In accordance with the Rules of Procedure of the Maritime Safety Committee, the Sub-Committee unanimously re-elected Mr. R. Lakeman (the Netherlands) as Chairman and Mr. N. Clifford (New Zealand) as Vice-Chairman for 2017.

## **28 ANY OTHER BUSINESS**

Nothing was raised that concerns World Sailing

## **29 ACTIONS REQUESTED OF THE COMMITTEE**

This sets out approvals requested from MSC for traffic separation schemes and routing measures, decisions on GMDSS and to approve the report of NCSR3 in general.