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08/01/2020

Konu : IMO Seyir,Haberleşme,Arama ve Kurtarma Alt Komitesi 7. Toplantısına İlişkin ICS Çalışması Hk.

**Sirküler No :32**

SAYIN ÜYEMİZ,

**İlgi** : Uluslararası Deniz Ticaret Odasının (ICS) 07/01/2020 tarihli, RN(20)01 sayılı yazısı.

Uluslararası Deniz Ticaret Odası (ICS) tarafından gönderilen ilgi yazıda, Uluslararası Denizcilik Örgütü (IMO) Seyir, Haberleşme, Arama ve Kurtarma Alt Komitesinin yapılacak olan 7. Toplantısına ilişkin ICS taslak raporu Ek'te sunulmaktadır. 15 – 24 Ocak 2020 tarihlerinde IMO Merkezi'nde/Londra yapılacak toplantıda görüşülmek üzere hazırlanmış raporda,

- Denizde kayıp konteynerler,
- Acil Durum Konum Belirten Telsiz Vericisi (EPIRB) performans standartları,
- Denizcilik Servislerinin tanımlarının elektronik seyir kapsamında ele alınması,
- Küresel Deniz Tehlike ve Güvenlik Sistemi (GMDSS) ana planının güncellenmesi, modernizasyonu ve Deniz Güvenliği Bilgileri yönergeleri,
- Rota oluşturmasında dikkate alınacaklar ve zorunlu gemi rapor verme sistemleri,
- Uzak Mesafede Gemilerin Tanımlanması ve İzlenmesi (LRIT) sistemlerindeki güncellemeler,
- Deniz alanında Hint Bölgesel Seyir Uydu Sistemleri Uygulamaları (IRNSS) ve IRNS cihazları performans standartları,

Konularına yer verilmiş olup, rapora ilişkin görüş ve önerilerinizin ICS'e iletilmek üzere Odamıza gönderilmesi hususunda bilgilerinizi ve gereğini arz/rica ederim.

Saygılarımla,

*e-İmza*İsmet SALİHOĞLU  
Genel Sekreter**Ek:** İlgi Yazı ve Eki (66 sayfa)

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7 January 2020

**RN(20)01**

**TO: RADIO AND NAUTICAL SUB-COMMITTEE**

**Copy: Marine Committee**

**DRAFT ICS BRIEF FOR THE SEVENTH SESSION OF THE IMO SUB-COMMITTEE ON NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE (NCSR 7)**

**Action required: *Members are invited to review the draft ICS brief for the seventh session of the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 7), and comment as appropriate.***

The seventh session of the IMO Sub-committee on Navigation, Communications and Search and Rescue (NCSR 7) will take place at IMO Headquarters from 15 to 24 January 2020

Members are invited to review the draft ICS brief attached at **Annex A** and provide comment, as appropriate, to further inform ICS positions at the meeting. The draft brief was prepared taking into account views expressed at the previous meeting of the Radio and Nautical Sub-Committee (RN(18)10).

Members were advised of the extended meeting and the anticipated timetable. A more detailed timetable is provided in the brief.

Comments on the draft brief should be forwarded to the undersigned ([gregor.stevens@ics-shipping.org](mailto:gregor.stevens@ics-shipping.org)) without delay.

Gregor Stevens  
Marine Adviser

## PROVISONAL TIMETABLE

Day	Agenda items	WG/DG
Wednesday, 15 January	<p>Opening of the session</p> <p>1 Adoption of the agenda</p> <p>2 Decisions of other IMO bodies</p> <p><i>Establishment of the Search and Rescue Working Group based on provisional terms of reference</i></p> <p>11 Revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments</p> <p>12 Response to matters related to the Radiocommunication ITU R Study Group and ITU World Radiocommunication Conference</p> <p>10 Safety measures for non-SOLAS ships operating in polar waters</p> <p><i>Establishment of the Communications Working Group to commence work on agenda items 11 and 12</i></p> <p>7 Revision of the Guidelines for Vessel Traffic Services (resolution A.857(20))</p> <p>13 Revision of the Guidelines on places of refuge for ships in need of assistance (resolution A.949(23))</p> <p>4 Updates to the LRIT system</p> <p>5 Application of the "Indian Regional Navigation Satellite System (IRNSS)" in the maritime field and development of performance standards for shipborne IRNSS receiver equipment</p> <p>6 Recognition of the Japanese regional navigation satellite system Quasi-Zenith Satellite System (QZSS) and development of performance standards for shipborne satellite navigation system receiver equipment</p> <p>8 Consideration of descriptions of Maritime Services in the context of e-navigation</p> <p>22 Any other business (NCSR 7/22/1, NCSR 7/22/2, NCSR 7/22/3 and NCSR 7/22/5 only)</p> <p><i>Establishment of the Navigation Working Group</i></p>	<p></p> <p></p> <p></p> <p>WG 2</p> <p>WG 2</p> <p>WG 1</p> <p></p> <p>WG 1</p> <p>WG 1</p> <p></p> <p></p> <p>WG 1</p> <p></p>
Thursday, 16 January	<p><i>The Search and Rescue Working Group returns to plenary</i></p> <p>16 Guidelines on harmonized aeronautical and maritime search and rescue procedures, including SAR training matters</p> <p>17 Amendments to the IAMSAR Manual</p> <p>15 Further development of the provision of global maritime SAR services</p>	<p></p> <p>WG 3</p> <p>WG 3</p> <p></p>

Day	Agenda items	WG/DG
	<p>14 Developments in GMDSS satellite services (NCSR 7/14/1 only)</p> <p><i>The Search and Rescue Working Group returns to work</i></p> <p><i>The Communications Working Group returns to plenary</i></p> <p>9 Updating of the GMDSS master plan and guidelines on Maritime Safety Information (MSI)</p> <p>18 Unified interpretation of provisions of IMO safety, security, and environment-related conventions</p> <p>22 Any other business (NCSR 7/22/6 and NCSR 7/22/7 only)</p> <p>14 Developments in GMDSS satellite services (remaining documents)</p> <p><i>The Communications Working Group returns to work</i></p>	<p>WG 2 / [DG] WG 2</p> <p>WG 2 WG 2</p>
Friday, 17 January	<p>3 Routeing measures and mandatory ship reporting systems</p> <p><i>Establishment of the Experts Group on Ships' Routeing</i></p> <p>19 Validated model training courses</p> <p>22 Any other business (remaining documents)</p> <p>- Report of the SAR Working Group (PM)</p>	EG
Monday, 20 January	NO PLENARY MEETING	
Tuesday, 21 January	NO PLENARY MEETING	
Wednesday, 22 January	NO PLENARY MEETING	
Thursday, 23 January	NO PLENARY MEETING	
Friday, 24 January	<p>21 Election of Chair and Vice-Chair for 2021</p> <p>- Reports of the remaining working, expert and [drafting] groups</p> <p>20 Biennial agenda and provisional agenda for NCSR 8</p> <p>23 Report to the Maritime Safety Committee</p>	

## WORKING GROUP ARRANGEMENTS

WG 1 – Navigation

WG 2 – Communication

WG 3 – SAR

EG – Expert Group on ship routing

## **ITEM 1: ADOPTION OF THE AGENDA**

The Sub-Committee is invited to consider and adopt the provisional agenda (NCSR 7/1). Preliminary arrangements for this session will be made available (NCSR 7/1/2) and working, drafting and/or experts groups envisaged to be established during the session will be advised in due time before the session.

### **Papers:**

#### **1 Provisional Agenda**

The Secretariat provides the provisional agenda for NCSR 7 taking place at IMO Headquarters, 15<sup>th</sup> – 24<sup>th</sup> January 2020.

##### **1/1 Annotations to the provisional agenda Secretariat**

The Secretariat provides annotations on the provisional agenda.

##### **1/2 Preliminary arrangements for NCSR 7 Chair**

The Chair provides information on the arrangements for the extended meeting of NCSR 7.

##### **1/3 Arrangements for working, experts and drafting groups at NCSR 7 Chair**

The Chair provides information on the arrangements for working, experts and drafting groups at NCSR 7 – refer to the front pages of the brief.

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

The Sub-Committee will be informed of the relevant decisions made and actions taken by other bodies of the Organization and will be invited to take action, as appropriate, under the respective agenda items.

### **Papers:**

#### **2 Outcome of SSE 6, HTW 6, MSC 101, MEPC 74, Secretariat FAL 43 and C 122**

The Secretariat provides information on the outcomes of SSE 6, HTW 6, MSC 101, MEPC 74, FAL 43 and C 122 relevant to the work of the Sub-Committee.

### **Agenda item 2 – Decisions of other IMO bodies**

#### **Lost containers at sea**

MSC 101 and MEPC 74 invited the NCSR Sub-Committee to note the importance of the issue of lost containers at sea in the context of addressing the issue of marine plastic litter from ships, as their expertise on the matter could be sought in the future.

#### **EPIRB performance standards**

MSC 101 adopted resolution MSC.471(101) on Performance standards for float-free emergency position-indicating radio beacons (EPIRBs) operating on 406 MHz.

#### **MSC Resolutions**

As requested by NCSR 6, MSC 101 considered and agreed that amendments to guidelines and recommendations adopted by MSC resolutions could be adopted in the future, if appropriate, as revised versions of such resolutions, maintaining the same number, with the extension "/Rev..." added.

### **Agenda item 8 – Consideration of descriptions of Maritime Services in the context of e-navigation**

MSC 101 endorsed the action taken by NCSR 6 in inviting the FAL Committee to consider the descriptions of Maritime Services (Port Support Service and Vessel shore reporting) and noted the decisions of FAL 43 in this connection to include the FAL Committee as an associated organ for output 2.11.

MSC instructed NCSR 7 to report to FAL 44 on the outcome of its work on output 2.11 (Consideration of descriptions of Maritime Services in the context of e-navigation).

MSC further noted the decision of the FAL Committee to include in its biennial agenda and the provisional agenda for FAL 44 an output on "Consideration of

descriptions of Maritime Services in the context of e-navigation" and to establish a correspondence group to review the descriptions of Maritime Services related to the FAL Committee.

C122 endorsed adding the FAL Committee as associated organ for the outputs regarding "Consideration of descriptions of Maritime Services in the context of e-navigation".

### **Agenda item 9 – Updating of the GMDSS master plan and guidelines on Maritime Safety Information (MSI)**

MSC 101 agreed to circulate the interim Iridium SafetyCast service manual set out in the annex to document MSC 101/11/1 by means of an MSC circular. Refer to MSC.1/Circ.1613.

### **Agenda item 11 – Revision of SOLAS chapters III and IV for Modernization of GMDSS, including related and consequential amendments to other existing instruments**

SSE 6 considered draft amendments to SOLAS chapters III and IV related to the modernization of the Global Maritime Distress and Safety System (GMDSS). Having noted the discussion of NCSR 6 on "Coordinated plan of work for the modernization of the GMDSS" and the necessary action to be taken by that Sub-Committee, invited submissions with regard to any impact on the carriage requirements of radio life-saving appliances that could emanate from the provisions relocated from SOLAS chapter III to chapter IV, either to:

- .1 NCSR 7; or
- .2 the Correspondence Group on Modernization of the GMDSS established at NCSR 6; or
- .3 the Joint IMO/ITU Experts Group on Maritime radio communication matters.

HTW 6 noted the outcome of NCSR 6 in connection with the revision of SOLAS chapters III and IV for modernization of the Global Maritime Distress and Safety System (GMDSS), including related and consequential amendments to other existing instruments and that:

- .1 minor amendments to section B-I/12 of the STCW Code should be considered by the HTW Sub-Committee with regard to the references to "Inmarsat"; and
- .2 any actions required with regard to training should be referred to the HTW Sub-Committee when the modernization of the GMDSS was finalized,

agreed that any necessary amendments to the STCW Code would be considered in conjunction with other actions required when the modernization of the GMDSS was finalized.

In this context, HTW 6 noted that there may be model courses with references to "Inmarsat" in need of revision.

### **ITEM 3: ROUTEING MEASURES AND MANDATORY SHIP REPORTING SYSTEMS**

The Sub-Committee will be invited to consider proposals for new or amended routeing measures and mandatory ship reporting systems.

#### **Papers:**

#### **3 Amendment of the existing two-way route in the Great Barrier Reef and Torres Strait Australia**

Australia provides a proposal for an amendment to the IMO-adopted two-way route in the Great Barrier Reef and Torres Strait, in Far North Queensland, Australia.

*ICS was consulted by Australia for the proposed amendment of the existing two-way route in the Great Barrier Reef and Torres Strait.*

*ICS supports the proposed amendment which creates an additional leg or segment, thereby providing a wider route. It also offers the potential to separate north and south-bound traffic by creating an alternative route. The existing two-way route provides the safest passage for ships through waters where navigation can be difficult.*

**ICS thanks Australia for document NCSR 7/3. ICS supports the proposed amendment as it creates an additional leg or segment, thereby providing a wider route. It also offers the potential to separate north and south-bound traffic by creating an alternative route.**

#### **3/1 Amendments to existing traffic separation schemes and associated routeing measures in Norway – "Off the western coast of Norway", "Off the coast of southern Norway" and "Off the coast of Norway from Vardø to Røst"**

Norway provides a proposal to harmonize and consolidate the three ships' routeing systems in the Norwegian Exclusive Economic Zone (EEZ), each with traffic separation schemes (TSS) and recommended routes.

The objective is to optimize the effect of the routeing systems in addition to harmonize the systems so that they apply to the same categories of ships.

Norway suggests amendments to the applicability of the routeing measures, and to introduce two new traffic separation schemes with recommended routes.

Proposed amendments to the applicability of the consolidated routeing systems:

- .1 harmonize which ships the routeing systems apply to;



- .2 include ships that carry INF-cargo and ships with radioactive sources of energy;
- .3 exclude passenger ships in regular service between Norwegian and international ports;
- .4 provide clarification concerning voyages between mainland Norway and Svalbard; and
- .5 provide clarification concerning where ships should leave/enter the routing system enroute to and from Norwegian ports.

Consequently, amendments may need to be reflected in the chartlets which include one new traffic separation scheme and recommended route to:

- .1 western system; and
- .2 northern system.

Norway proposes that the amendments to ships' routing systems will enter into force six months after their adoption by the Committee.

*ICS agrees with the harmonisation of the ship types that can/cannot use the route.*

*There are no amendments to the existing southern system "Off the coast of southern Norway".*

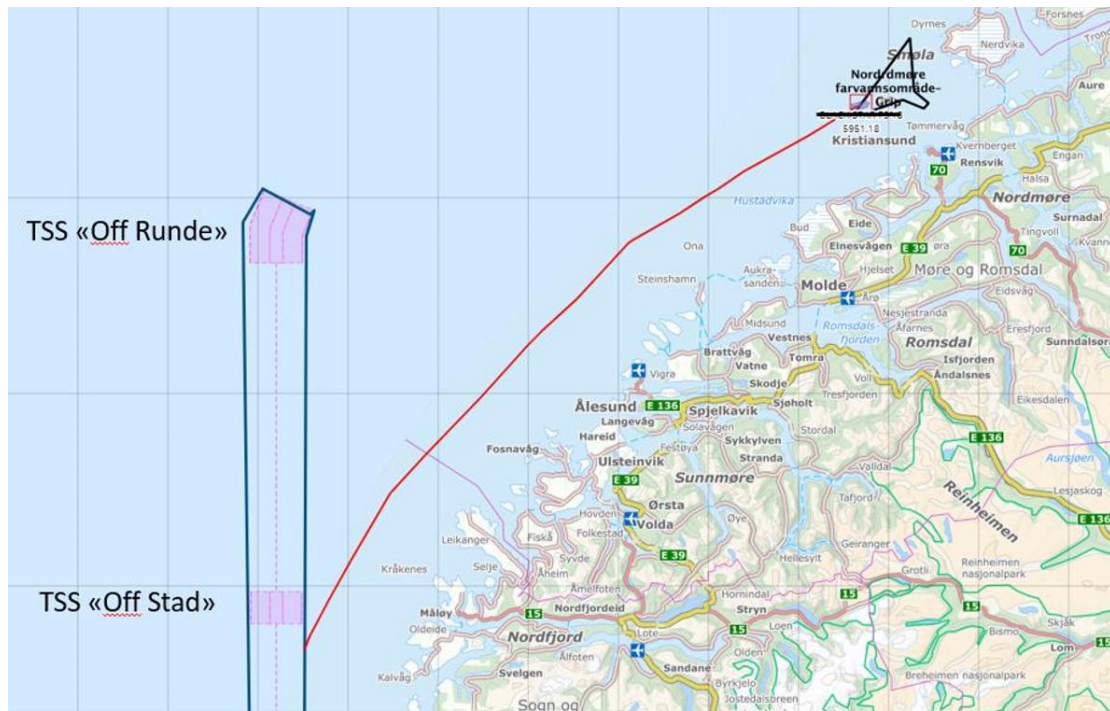
*However, ICS has concerns regarding the wording of leaving/entering the recommended routing.*

*The first is regarding vessels leaving the route, it states:*

*COLREG.2/Circ.58 and COLREG.2/Circ.62 states that ships "should follow the ships' routing system until a course to port can be clearly set". To clarify that ships should use the routing systems until a course can be set directly to port, and thereby to ensure the original objectives of the routing systems, it is proposed to amend the text slightly. New amended text will read:*

*"Ships should follow the routing systems until a safe and single course leg can be set directly to/from port".*

*By making this adjustment to the text, it will become clearer that ships should leave/enter the routing system where they can set a single course directly to/from port.*



**Figure 2: Example of a ship leaving the western routing system too early**

*It should be noted, the existing routeing systems are all recommendatory nature. The suggested amendments will not change that.*

**ICS thanks Norway for document NCSR 7/3/1.**

**ICS supports the changes in line with the harmonisation of the ship types that can and cannot use the route.**

**ICS however has reservations regarding the wording of the text proposed on the basis of a 'single course leg' to and from the port. This could increase the distances from the recommended route to the ports.**

**As this routeing system is only recommendatory and this change will not affect this nature, it could be discussed further in the working group.**

**3/2 Amendment of the existing traffic separation scheme and associated measures, "Slupska Bank", Poland**

Poland provides a proposal to amend the existing traffic separation scheme (TSS) "Slupska Bank" by establishing a third section of TSS and adjusting and renaming the existing east part, in order to reduce the danger of groundings in the area of shallows detected further east of the existing TSS in and outside the Polish territorial seas, in the southern part of the Baltic Sea.

The document describing the changes to TSS was presented by Poland at the Ninth Meeting of the HELCOM Group of Experts on Safety of Navigation (SAFE NAV 9-2018) attended by delegations from Denmark, Estonia,





*The distance between offshore structures should take into account the optimum distance to stop a vessel, sufficient space to assess the risk of collision and the distance required to minimize disturbances on ships' radars and radiocommunication systems; and to determine the aids to navigation required in terms of marine marks and vessel traffic services.*

*The submission provides information regarding the different attributes which should be considered when planning the offshore structures. It does not however go into any detail or propose any actions, only recommendations.*

*Also refer to NCSR 3/INF.15*

**3/INF.10 Information on the proposal for the establishment of an area to be avoided off the Brazilian southeast coast** **Brazil**

Brazil advise that they are preparing a proposal for the establishment of an Area to be avoided (ATBA) at the Santos Basin region off the Brazilian southeast coast for transiting ships.

The Santos Basin area has a high concentration of oil platforms, supply vessels, drilling rigs, production systems and floating production storage and offloading (FPSO) vessels. This area is close to a high demographic density and sensitive marine environment region.

The existing offshore activities in the region include the operation of 18 floating production storage and offloading (FPSO) vessels, 11 drilling platforms with dynamic positioning systems (DP), 30 DP shuttle tankers for offloading, and at least 40 support vessels continuously operating to supply water, food, diesel oil and equipment for the operation of the FPSO, as well as different types of specific and dedicated vessels for launching risers, underwater maintenance and inspection of equipment required for oil exploitation, such as Christmas trees, submarine manifolds, pipelines, etc.

Due to new oil projects, nine new FPSO are expected to start operations within the next five years.

In the near future, there will be 27 FPSO operating in the area, a 50% increase in the number of large FPSO. As a consequence, the number of vessels and ships required to support operations will increase in the same proportion.

In order to minimize the risks, the Brazilian Government intends to propose the establishment of an Area to be avoided (ATBA) that could be applied to transiting ships, i.e. ships not engaged on offshore activities, so as not to interfere with the main activities within the area and to avoid collisions with supply boats, FPSO and others engaged in O&G activities.

The proposal is not intended to impair the main maritime routes, but rather to

contribute to maintaining the existing patterns of traffic flow and to minimize the risk of navigation accidents involving ships in transit and FPSO, equipment and systems, as well as shuttle tankers, platforms supply vessels and tugboats operating in the area.

**3/INF.11 Environmental impact assessment of an oil spill caused by the collision between a merchant ship and a FPSO at the Santos Basin: a simulation case study and vulnerability analysis** **Brazil**

Brazil presents the study carried out by Petrobras' Research and Development Centre (CENPES) on an oil spill simulation study and the potential environmental consequences following a collision mock-up between a FPSO operating in the Santos basin region and a merchant ship.

This document should be considered in conjunction with document NCSR 7/INF.10, in which the Brazilian government presents information on the intention to establish an area to be avoided for transiting ships in the Santos Basin (the most important Brazilian oil production area), located in the maritime region of the south eastern coast of Brazil.

The report states that the models' results and information presented indicate that an oil spill resulting from an accident with a FPSO, for example a collision with a merchant ship, in the Santos Basin, regardless of the season of the year it occurs, will definitely cause a negative impact on the environment and inhabited areas. The remarkable biodiversity and sensitive natural resources of the Santos Basin are expected to be threatened in the case of an event of such magnitude. The Santos Basin coastal region is highly populated and an oil spill of this kind is very likely to severely impair the economic activities, such as tourism and fishing, with consequent harmful socio-economic effects.

*Also refer to NCSR 7/3/INF.10*

**3/INF.15 Report from the World Association for Waterborne Transport Infrastructure (PIANC) on Interaction between offshore wind farms and maritime navigation** **France and the Netherlands**

The co-sponsors provide a report from the World Association for Waterborne Transport Infrastructure (PIANC) on Interaction between offshore wind farms and maritime navigation (MarCom WG Report No 161 – 2018).

*Also refer to NCSR 7/3/4.*

## **ITEM 4: UPDATES TO THE LRIT SYSTEM**

The Sub-Committee will consider the report of the LRIT Coordinator on the review and audit of the performance of LRIT Data Centres and/or of the International LRIT Data Exchange, along with comments and recommendations, as well as any other documents that may be submitted under this agenda item.

### **Papers:**

#### **4 Developments on LRIT since NCSR 6 Secretariat**

The Secretariat provides information on developments related to LRIT since NCSR 6, including the functioning and operation of the LRIT Data Distribution Plan (DDP) server and the Information Distribution Facility (IDF), the renewal of Public Key Infrastructure (PKI) certificates, the testing and establishment of LRIT Data Centres (DCs), the third modification testing phase of the LRIT system and the outcomes of the periodical meetings of the LRIT Operational Governance body (OGB)

#### **4/1 Summary audit reports of LRIT Data Centres and the International LRIT Data Exchange IMSO**

IMSO provides information on the annual LRIT audits conducted and completed by IMSO between 14 November 2018 and 12 November 2019.

#### **4/2 Performance of the LRIT system and recommendations by the LRIT Coordinator IMSO**

IMSO provides information related to the overall performance of the LRIT system between 17 October 2018 and 15 October 2019 and relevant recommendations by IMSO, in order to improve efficiency, effectiveness and security of the LRIT system.

#### **4/3 Test results, analysis and suggestions for the implementation of amendments related to the change of periodic rate of transmission feature Brazil, Chile and Uruguay**

The co-sponsors present the test results and analysis of the implementation of approach A to the change of periodic rate of transmission of the Long-range identification and tracking (LRIT) information and suggests a roadmap for the implementation of the proposed amendments.

The Sub-Committee is invited to:

- .1 note the implementation, test results and cost reduction considerations, presented in paragraphs 15 to 35; and
- .2 consider authorizing the regular utilization of approach A by the interested Administrations.

**4/INF.2 Status of the International LRIT Data Exchange European  
Commission**

The European Commission provides a report about the status of the International LRIT Data Exchange in the production environment from 1 August 2018 to 31 July 2019.

**4/INF.18 Scale of charges to be levied by the LRIT IMSO  
Coordinator during 2020**

IMSO provides information on the scale of charges to be levied by the LRIT Coordinator during the period from 1 January to 31 December 2020, which can be found in the annex to the document.



**ITEM 5: APPLICATION OF THE "INDIAN REGIONAL NAVIGATION SATELLITE SYSTEM (IRNSS)" IN THE MARITIME FIELD AND DEVELOPMENT OF PERFORMANCE STANDARDS FOR SHIPBORNE IRNSS RECEIVER EQUIPMENT**

The Sub-Committee will be invited to evaluate the IRNSS as a future component of the World-wide Radio navigation System (WWRNS) based on documents that may be submitted under this agenda item, following the adoption by MSC 99 of resolution MSC.449 (99) on Performance standards for shipborne Indian Regional Navigation Satellite System (IRNSS) receiver equipment.

**Papers:**

**5 Recognition of the Indian Regional Navigation Satellite System (IRNSS) India**

India provides further information and detailed data on the Indian Regional Navigation Satellite System (IRNSS) including system performance, capability, testing and application for consideration by the Sub-Committee.

Detailed information was provided by India to MSC 101 (MSC 101/INF.5), as an information document, encompassing the IRNSS system description, system service capability, system testing and system application along with relevant references/website links. An identical document is now submitted to NCSR 7 for its consideration.

The Sub-Committee is invited to:

- .1 consider the information contained in this document; and
- .2 recommend the recognition of the IRNSS as a component of the World-Wide Radio navigation System (WWRNS) to the Committee.

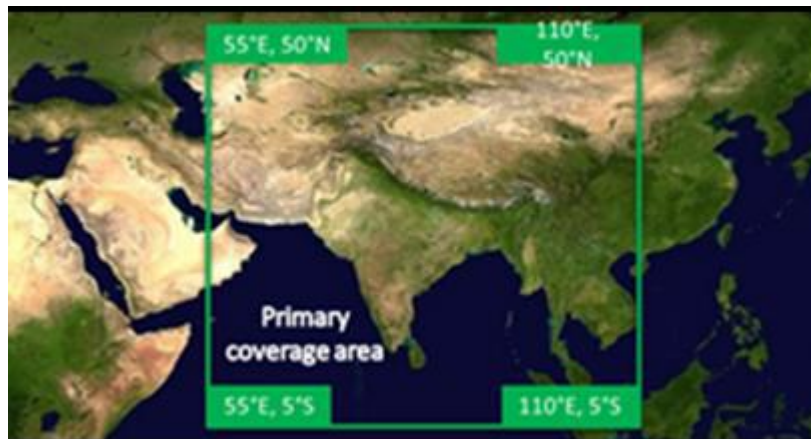
*ICS supports the recognition of the Indian Regional Navigation Satellite System. The accuracy performance indices obtained from the final measurements indicate accuracy of fix well under 1 m. This is felt to be suffice for supporting port and shipborne operations. The test also demonstrates the compliance of the IRNSS receiver performance to requirements under the category "Port" as per resolution A.915(22) appendix 2.*

**ICS thanks India for document NCSR 7/5 and supports IRNSS being recognised on the basis of it being available on a non-discriminatory basis.**

**5/1 IRNSS coverage area and its intended area of services India**

India provides the coverage area of the Indian Regional Navigation Satellite System (IRNSS) and its intended area of services, for the consideration of the

Sub-Committee as outlined below;



**ITEM 6: RECOGNITION OF THE JAPANESE REGIONAL NAVIGATION SATELLITE SYSTEM QUASI-ZENITH SATELLITE SYSTEM (QZSS) AND DEVELOPMENT OF PERFORMANCE STANDARDS FOR SHIPBORNE SATELLITE NAVIGATION SYSTEM RECEIVER EQUIPMENT**

Following consideration of document MSC 99/20/4 (Japan), proposing to recognize the Japanese regional navigation satellite system "Quasi-Zenith Satellite System (QZSS)" as a future component of the World-wide Radio navigation System (WWRNS) and develop performance standards for shipborne QZSS receiver equipment, together with documents MSC 99/20/12 and Corr.1 (Germany) commenting on the proposal, this output was included in the post-biennial agenda of the Committee with two sessions needed to complete the item, assigning the NCSR Sub-Committee as the coordinating organ. This output has now been included in the 2020-2021 biennial agenda of the NCSR Sub-Committee and the provisional agenda for NCSR 7, with a target completion year of 2021.

**Papers:**

- |          |  |                                  |
|----------|--|----------------------------------|
| <b>6</b> | <b>Recognition of the Japanese Regional Navigation Satellite system Quasi-Zenith Satellite System (QZSS) and development of performance standards for shipborne satellite navigation system receiver equipment</b> | <b>Germany, Japan and Poland</b> |
|----------|--|----------------------------------|

The co-sponsors provide a functional approach and modular structure for performance standards for shipborne equipment using radio signals for the provision of information and data for navigation.

The applicability of the approach is proved by exemplary implementation of a draft performance standard for shipborne QZSS receiver equipment (Quasi-Zenith Satellite System) into the modular documentation structure.

The flexible extendibility of the performance standards is illustrated by a draft performance standard for shipborne GPS receivers using a source of augmentation data to improve accuracy and integrity of shipside position, velocity and time (PVT) data provision.

The Sub-Committee is invited to note the information provided in this document when considering the draft Performance standard for shipborne equipment using radio signals for the provision of information and data for navigation (NCSR 7/6), as a possible approach.

- |            |   |              |
|------------|---|--------------|
| <b>6/1</b> | <b>Proposed draft performance standards for shipborne QZSS receiver equipment</b> | <b>Japan</b> |
|------------|---|--------------|

Japan provides the draft performance standards for shipborne Quasi-Zenith Satellite System (QZSS) receiver equipment for consideration by the Sub-Committee

**6/2 Preliminary review of the Quasi-Zenith Satellite System (QZSS) Japan**

Japan provides a brief introduction to the Quasi-Zenith Satellite System (QZSS) for preliminary consideration by the Sub-Committee

The Sub-Committee is invited to:

- .1 consider this document and conduct a preliminary assessment of QZSS;
- .2 note that Japan intends to provide further information and detailed data to facilitate the Sub-Committee's evaluation; and
- .3 provide comments with regard to the information and data needed for the full evaluation of QZSS.

**6/INF.4 Efficient, effective and uniform performance standardization of radio navigation receivers Germany**

Germany provides an overview of structure and content of performance standards developed in the last few decades to specify the requirements for shipborne equipment using radio signals for the provision of information and data for navigation.

The existing performance standards have been analysed to elaborate similarities and differences in relation to documentation structure and specified requirements. The provided results of analysis show the potential for future development of Performance Standards in a common document.

A smart modularization and reorganization of this common document may provide the following advantages:

- a) the specification of requirements becomes functional and technology neutral;
- b) the increase of functional capacity resulting from technological advances is depictable; and
- c) the performance standard is extendable in relation to further functionalities and additional requirements.

The Sub-Committee is invited to note the information provided in this document when considering the draft Performance standard for shipborne equipment using radio signals for the provision of information and data for navigation (NCSR 7/6), as a possible approach.

**ITEM 7: REVISION OF THE GUIDELINES FOR VESSEL TRAFFIC SERVICES**

Following consideration of document MSC 99/20/3 (Australia et al.), proposing to revise the Guidelines for vessel traffic services (resolution A.857(20)) to ensure that they were modernized/updated and continued to serve as an effective instrument, providing a clear framework to implement vessel traffic services globally in a harmonized manner, this output was included in the post-biennial agenda of the Committee with one session needed to complete the item, assigning the NCSR Sub-Committee as the coordinating organ. This output has now been included in the 2020-2021 biennial agenda of the NCSR Sub-Committee and the provisional agenda for NCSR 7, with a target completion year of 2020.

**Papers:**

**7 Revision of the Guidelines for vessel traffic services (Resolution A.857(20)) Australia et.al**

The co-sponsors provide a draft revision of the Guidelines for Vessel Traffic Services (resolution A.857(20)) for the Sub-Committee's consideration.

The Sub-Committee is invited to consider the proposed draft revision of resolution A.857(20), as set out in the annex, and finalize the draft resolution for approval by MSC 102.

*ICS has concerns with respect to two paragraphs, 4.4 and 6.1.3.*

*Refer to NCSR 7/7/1*

**7/1 Comments on document NCSR 7/7 ICS and BIMCO**

The co-sponsors provide comments on the draft revision of the Guidelines for Vessel traffic services (resolution A.857(20)) presented in document NCSR 7/7.

The co-sponsors are concerned about the suggestion in paragraph 4.4 of establishing a VTS with voluntary participation outside the normal jurisdiction of a VTS. This may end up in a scenario where some ships participate in VTS and others do not.

The wording in paragraph 6.1.3 includes "safety" but not "protection of the marine environment". This seems to restrict and undermine the responsibility of the master as stipulated in SOLAS regulation V/34-1. The draft Assembly resolution should also consider a situation where the master, in acting to protect the marine environment and based on the master's professional judgement, chooses not to follow the instructions given by VTS.

The co-sponsors propose to delete paragraph 4.4.

The co-sponsors propose to add "protection of the marine environment" in paragraph 6.1.3, so it reads:

"In a VTS area, participating ships should: comply with the requirements and instructions given to the ship by VTS unless contradictory safety and/or marine environment protection reasons exist."

The Sub-Committee is invited to consider the comments in this document and the proposals in paragraphs 10 and 11 (shown above), and take action, as appropriate.

**ICS thanks the co-sponsors of document NCSR 7/7.**

**The co-sponsors are concerned about the suggestion in paragraph 4.4 of establishing a VTS with voluntary participation outside the normal jurisdiction of a VTS. This may end up in a scenario where some ships participate in VTS and others do not.**

**The co-sponsors also note that the wording in paragraph 6.1.3 includes "safety" but not "protection of the marine environment". This seems to restrict and undermine the responsibility of the master as stipulated in SOLAS regulation V/34-1.**

**The co-sponsors propose to delete paragraph 4.4 and adding "protection of the marine environment" in paragraph 6.1.3.**

**ITEM 8: CONSIDERATION OF DESCRIPTIONS OF MARITIME SERVICES IN THE CONTEXT OF E-NAVIGATION**

**Papers:**

- 8 Report of an informal meeting of Member States and international organizations acting as domain coordinating bodies for the further development of descriptions of Maritime Services in the context of e-navigation Secretariat**

The Secretariat reports on the outcome of an informal meeting of Member States and international organizations acting as domain coordinating bodies for the further development of descriptions of Maritime Services (MS) in the context of e-navigation, held at IALA Headquarters, on 9 October 2019.

The main conclusions and recommendations emanating from this meeting are summarized as follows:

- .1 Domain coordinating bodies should continue to meet periodically to share information on the further developments of Maritime Services descriptions, coordinate the work ahead and seek opportunities to help each other. Regular meetings would also assist to check progress and take a deeper dive into technical issues as well as facilitate cross-sharing of knowledge and best practices. These meetings should be coordinated by IMO using, if necessary, video-conference/tele-conference facilities. However, an annual physical meeting would be useful to bring all members together. This annual meeting could also be a platform for regular sharing on MS to relevant parties.
- .2 Additional guidance for the drafting of MS descriptions, technical services and product specifications should be provided as there is no prior experience in drafting these documents and there are different interpretations of the level of detail required for the descriptions.
- .3 Consideration should be given to the establishment of intersessional arrangements, jointly organized by domain coordinating bodies, to progress work, discuss interoperability issues and consider the development of related product specifications. A task force, or a small group of experts, could be established to assist domain coordinating bodies with the drafting of product specifications and data standardization.
- .4 The e-navigation strategy implementation plan (SIP) should be updated to reflect latest developments and work ahead.
- .5 Regular workshops or symposiums on developments on MSs should be organized to promote better understanding and share information

**ITEM 9: UPDATING OF THE GMDSS MASTER PLAN AND GUIDELINES ON MARITIME SAFETY INFORMATION (MSI)**

IHO Proposed amendments to the International SafetyNET Manual

The Sub-Committee will be invited to consider and analyse matters relating to the further development of the GMDSS master plan on shore-based facilities.

The Sub-Committee will further be invited to consider any submissions relating to the development of guidelines on MSI provisions, including proposed amendments to the International SafetyNET Manual (MSC.1/Circ.1364/Rev.1 and MSC.1/Circ.1364/Rev.1/Corr.1).

**Papers:**

**9 Proposed amendments to the International SafetyNET Manual IHO**

As part of its editorial review of all Maritime Safety Information (MSI) documentation, the IHO Sub-Committee on the World-Wide Navigational Warning Service (WWNWS-SC) has been reviewing the text of MSC.1/Circ.1364/Rev.1 on International SafetyNET Manual, published on 25 November 2016.

IHO provide a proposal for amending the International SafetyNET Manual, consolidating a guidance on technical requirements for Fleet Safety which was disseminated, on an interim basis, by means of MSC.1/Circ.1611. The title of the Manual is also proposed to be changed to reflect the consolidation. It is further proposed to separate relevant annexes on the recently retitled IMO EGC Coordinating Panel, which could be disseminated on a separate MSC circular.

The Sub-Committee is invited to consider for approval by MSC 102:

- .1 the draft revised MSC circular on the International SafetyNET Services Manual (annex 1); and
- .2 the draft MSC circular on the IMO EGC Coordinating Panel (annex 2)

**9/1 Promulgation of Maritime safety information – NAVTEX service Chair of the IMO NAVTEX Coordinating Panel**

The Chair of the IMO NAVTEX Coordinating Panel provides a summary of the current issues being addressed by the IMO NAVTEX Coordinating Panel and its actions/activities since the sixth session of the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 6).

**9/2 Outcomes of the eleventh session of the IHO IHO**



## **World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC)**

IHO informs the Sub-Committee on matters discussed and decisions taken at the tenth session of the IHO WWNWS Sub-Committee, which was held from 26 to 30 August 2019.

The Sub-Committee is invited to:

- .1 take note of the information provided in this report on the outcome of WWNWS 11;
- .2 acknowledge the concerns raised by the NAVAREA Coordinators on the cost issues and consider what methodology could be developed to share the funding burden across the wider IMO community;
- .3 consider what actions are necessary to facilitate broadcast monitoring in a multi-provider environment and how the development of multiple system capable terminals can be progressed;
- .4 urge the use of the Joint Manual on MSI to ensure correct terminology and formats are used in MSI messages;
- .5 encourage closer engagement of the National MSI Coordinators of Member States with the relevant NAVAREA Coordinator(s);
- .6 encourage the attendance of Member States and Observers at WWNWS-SC meetings

## **9/3 Update on the IMO/WMO Worldwide Met-Ocean WMO Information and Warning Service (WWMIWS)**

WMO informs the Sub-Committee on the recent updates, plans and activities undertaken by the JCOMM Committee for the IMO/WMO Worldwide Met-Ocean Information and Warning Service (WWMIWS) to coordinate the provision of MSI for WWMIWS.

The Sub-Committee is invited to:

- .1 urge the use of the joint IMO/IHO/WMO Manual on MSI, and the WMO Manual on Marine Meteorological Services (No. 558), to ensure correct terminology and formats used in MSI messages;
- .2 encourage Member States to provide feedback on met-ocean services through the relevant METAREA Coordinators;
- .3 encourage the attendance of Member States and observers at WWMIWS-C meetings;

The Chair of the International SafetyNET Coordinating Panel provides a summary report of the International SafetyNET Coordinating Panel meeting held on 29 August 2019, in Halifax, Canada.

The Chair outlined the current Iridium SafetyCast service operational implementation timeline and the initial actions which needed to be completed to move through the process.

The Panel also noted that there were significant concerns amongst NAV/MET Coordinators at signing a contract with Iridium.

Iridium, noting that the United States delegation at IMO had set the date of 1 January 2020, stated that Iridium intended to be SOLAS carriage compliant and technically ready. The Panel noted the view of Iridium that, operationally, this may take longer. The Chair was tasked to formally request Iridium to delay "free introductory deadline" from 20 September to 31 December 2019.

It was agreed that the Panel should invite the NCSR Sub-Committee to request the IMO Secretariat to make information available on the status of implementation of Iridium services for each NAVAREA/METAREA, as appropriate, and develop a modification to the GISIS GMDSS Master Plan module to accommodate the new Iridium SafetyCast service.

The Chair highlighted the application of BeiDou for recognition as a mobile satellite service provider in the GMDSS.

The Coordinators expressed their concerns on the additional resources needed to service these additional providers and multiple terminals.

Fleet Safety was introduced and the Panel noted that MSI providers, i.e. NAV/METAREAs that are broadcasting on existing SafetyNET services, will be able to automatically transmit through the Fleet Safety service within the Inmarsat coverage area, including the recognized service area in Inmarsat-4 Middle East and Asia.

*This document highlights that there are still several hurdles to overcome before Iridium can become fully operational as GMDSS service provider.*

*ICS remains supportive of Iridium becoming a GMDSS service provider as soon as practicably possible.*

service areas for each of its NAVTEX transmitters.

**9/INF.8 Information on replacement of Canada's Notice to shipping (NOTSHIP) service with a Navigational warning (NAVWARN)**

Canada advises that it has replaced its Notice to shipping (NOTSHIP) service with a Navigational warning (NAVWARN) service.

NOTSHIPS will no longer be issued. However, until their update is completed, Canadian nautical charts and publications will refer to Notice to shipping or NOTSHIP. All references to Notice to shipping or NOTSHIP must be read as meaning Navigational warning or NAVWARN.

**ITEM 10: SAFETY MEASURES FOR NON-SOLAS SHIPS OPERATING IN POLAR WATERS**

The sub-committee will consider the consequences and feasibility of applying chapters 9 and 11 of the Polar Code to ships not certified under the SOLAS Convention and how best to enhance the safety of these ships, including possible development of amendments to SOLAS and/or the Polar Code.

*In general terms ICS members do not operate non-SOLAS ships, however ICS will maintain a watching brief on this agenda item and report any issues of concern to members.*

**Papers:**

<b>10</b>	<b>Application of chapters 9 and 11 of the Polar Code to non-SOLAS ships</b>	<b>Canada, Chile, France, Marshall Islands, New Zealand and Norway</b>
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The co-sponsors provide a possible approach to progress a technical analysis of the feasibility and consequences of applying chapters 9 (Safety of Navigation) and 11 (Voyage Planning) of the Polar Code to non-SOLAS ships.

The aim is to improve the safety of all ships operating in polar waters and those on board and reduce risk to the marine environment.

The table annexed to the submission sets out New Zealand's initial analysis of the feasibility and consequences of applying chapters 9 and 11 to non-SOLAS ships.

The Sub-Committee is invited to:

- .1 consider the proposals in paragraphs 6 to 9;
- .2 initiate a preliminary technical analysis of the table set out in the annex, provision by provision, considering whether and to what extent these should be applied to non-SOLAS ships;
- .3 note the underlying principles outlined in paragraph 13 as to how such provisions might be implemented; and
- .4 suggest arrangements for the continuation of this work in the future, including how best to address the possible development of amendments to SOLAS and/or the Polar Code, and to advise the Committee accordingly.

<b>10/1</b>	<b>Application of chapters 9 and 11 of the Polar</b>	<b>FOEI, WWF</b>
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## **Code to non-SOLAS ships**

## **and Pacific Environment**

The co-sponsors welcome the work undertaken to progress the technical analysis of the feasibility and consequences of applying chapters 9 and 11 to ships not certified under the SOLAS Convention operating in polar waters and provide further views.

The co-sponsors advise they remain committed to progressing the work to apply chapters 9 and 11 of the Polar Code to non-SOLAS ships, and invite the Sub-Committee to note the views expressed and to consider these views during discussions at NCSR 7, and if agreed, during intersessional discussions.

**ITEM 11: REVISION OF SOLAS CHAPTERS III AND IV FOR MODERNIZATION OF THE GMDSS, INCLUDING RELATED AND CONSEQUENTIAL AMENDMENTS TO OTHER EXISTING INSTRUMENTS**

The Sub-Committee will consider the revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments, taking into account the report of the Correspondence Group and the relevant parts of the reports of the fifteenth meeting of the Joint IMO/ITU Experts Group (NCSR 7/12) and the twenty-sixth meeting of the ICAO/IMO Joint Working Group (NCSR 7/16).

**Papers:**

**11 Report of the Correspondence Group on the United States Modernization of the GMDSS**

The United States provides a report of the Correspondence Group on the Modernization of the GMDSS, including a further draft of the revision of SOLAS chapters III and IV.

In response to the terms of reference, the Correspondence Group prepared an interim report for consideration by the Joint IMO/ITU Experts Group on Maritime radiocommunication matters (Experts Group) (ITU/IMO EG 15/6).

The Correspondence Group report included recommendations on the outstanding items identified by NCSR 6 and others raised by the Correspondence Group.

This document covers proposed revisions to chapter IV at paragraph 4, and additions and revisions to footnotes at paragraph 5. In both cases, the comments refer to basic text in annex 7 of document NCSR 6/WP.5.

The Sub-Committee is invited to consider the recommendations for revision of SOLAS chapter IV in paragraphs 4 and 5 and take action as appropriate.

**11/1 Correspondence Group recommendations on United States related and consequential amendments to other existing instruments**

The United States provides recommendations on related and consequential amendments to other existing instruments related to the revision of SOLAS chapters III and IV.

The basic document is NCSR 7/12, annex 6. This document considers those instruments which do not have an entry in the "Revisions required/status" column, as well as those without a delegation identified to prepare the first draft.

Those instruments fall into two groups: those which are referred to in footnotes in SOLAS chapter IV and those that are not mentioned in the

footnotes of the chapter.

The Sub-Committee is invited to consider the recommendations for revision of instruments related to SOLAS chapter IV, as presented in paragraphs 3 through 50.

**ITEM 12: RESPONSE TO MATTERS RELATED TO THE  
RADIOCOMMUNICATION ITU R STUDY GROUP AND ITU  
WORLD RADIOCOMMUNICATION CONFERENCE**

The Sub-Committee will consider the relevant parts of the report of the fifteenth meeting of the Joint IMO/ITU Experts Group (NCSR 7/12), on matters related to the maritime mobile and maritime mobile-satellite services, including liaison statements submitted by ITU-R Working Parties and Study Groups, and by other organizations, and take action, as appropriate.

**Papers:**

**12 Report of the fifteenth meeting of the Joint Secretariat  
IMO/ITU Experts Group on Maritime  
radiocommunication matters**

The Secretariat provides the report of the fifteenth meeting of the Joint IMO/ITU Experts Group on Maritime radiocommunication matters, which was held at IMO Headquarters from 8 to 12 July 2019.

*ICS attended the IMO-ITU EG 15 meeting comment on the ECC Report 299 "Measures to address potential blocking of MES operating in bands adjacent to 1518 MHz (including 1525-1559 MHz) at sea ports and airports" and made the following intervention.*

*Quote*

*ICS welcomes the recognition in Section 5 of the Report of the need for measures to address potential MES terminal blocking, but the principle of proportionality should not be limited to measures taken by CEPT Members and should be extended to the proposals in Section 4 as applied to the shipping industry. Initiating steps to require replacement of existing MES terminals would not be a proportionate measure;*

*ICS is unable to take the action requested in the liaison statement and are concerned that the ECC of CEPT is requesting such action without proper consultation with the international shipping community; and*

*Without commitment, ICS would seek further consultation in an international forum on the need for proportionate measures to address potential MES terminal blocking in port areas.*

*Unquote*

*Members will recall that in accordance with Circular RN (19)06 ICS has co-sponsored a submission to NCSR 7 in response to the ECC Report 299 "Measures to address potential blocking of MES operating in bands adjacent to 1518 MHz (including 1525-1559 MHz) at sea ports and airports" – refer to document NCSR 7/12/7*

*Also refer to documents NCSR 7/12/3, 7/12/4, 7/12/7, 7/14/2*



**12/1 Liaison statement from ITU-R WP 5B –  
Electromagnetic interference (EMI) effects of  
Light Emitting Diode (LED) lighting systems  
when co-located on board maritime vessels,  
and the EMI effects of LED on aeronautical  
systems**

**Secretariat**

The Secretariat provides a liaison statement from ITU concerning electromagnetic interference (EMI) effects of Light Emitting Diode (LED) lighting systems when co-located on board maritime vessels, and the EMI effects of LED on aeronautical systems.

The Sub-Committee is invited to note the information provided in the attached liaison statement and take action, as appropriate.

In April-May 2019 the ITU-R Working Party (WP) 5B received two documents, Document 5B/700 (USA) and 5B/658 (IMO) that raised the issue of electromagnetic interference (EMI) effects of Light Emitting Diode (LED) Lighting Systems and the impacts on maritime safety;

LED lighting systems installed on marine vessels can cause interference to marine radios which are part of the Global Maritime Distress and Safety System (GMDSS) and Automatic Identification System (AIS).

Interference generated by LED lighting systems represents a possible hazard to navigation and search and rescue, particularly when LED lighting systems are placed in the near vicinity of communications and navigation antennas.

Other equipment, uses power supplies similar in technique to those used in LED lighting systems which may cause the same problems.

The view of WP 5B is that there are currently no maritime EMI standards that adequately address this problem. The International Special Committee on Radio Interference (CISPR) 25 Class 5 automotive standard for EMI levels and distance separations (which for maritime installations can be as close as 1 meter distance between LED lighting systems and antennas) appears to fit the need for interference protection related to maritime requirements.

The CISPR 25 Class 5 standard is limited to no more than 5 watts, and WP 5B requests that the maritime use should not be limited to any power level.

WP 5B is interested in learning if this standard could possibly be adapted and applied as a maritime standard.

WP 5B understands that WP 1A is already working with CISPR regarding the assessment of the impact of unwanted radio frequency energy generated by non-radiocommunication equipment to radiocommunication service, and WP 5B would like to work with WP 1A to facilitate coordination with CISPR to develop suitable standards that protect aeronautical and maritime use. WP 5B kindly requests WP 1A and CISPR review the referenced documents

and take the appropriate action to create a standard that can be applied to resolve the issue of EMI effects, especially of LED lighting systems and the impacts on maritime and aviation safety.

WP 5B further invites WP 1A and CISPR to inform WP 5B on the work progress.

The Sub-Committee is invited to note the information provided in the liaison statement as outlined above and take action as appropriate.

**12/2 Liaison statement from ITU-R WP 5B – Secretariat  
Revision of Recommendation ITU-R M.585-7 -  
Assignment and use of identities in the  
maritime mobile service**

The Secretariat provides a liaison statement from ITU-R WP 5B concerning the revision of Recommendation ITU-R M.585-7 – Assignment and use of identities in the maritime mobile service.

The liaison statement proposes that the Recommendation is revised in 2 steps. Changes to Annex 1 related to trailing zeros and Mobile Aids to Navigation (AtoN) will be submitted for approval by Study Group 5 in September 2019, and a revision of Annex 2 related to AMRD Group B using AIS technology identities will be carried forward to the next WP 5B meeting in May 2020, with the intention that it will be submitted for approval by Study Group 5 at the end of 2020.

The Sub-Committee is invited to note the information provided in the attached liaison statement and take action, as appropriate.

**12/3 Liaison statement from ECC CEPT – ECC Secretariat  
Report 299 "Measures to address potential  
blocking of MES operating in bands adjacent to  
1518 MHz (including 1525-1559 MHz) at sea  
ports and airports"**

The Secretariat provides a liaison statement from ECC CEPT regarding the publication of the ECC Report 299 Measures to address potential blocking of MES operating in bands adjacent to 1518 MHz (including 1525-1559 MHz) at sea-ports and airports.

The Electronic Communications Committee (ECC) of The European Conference of Postal and Telecommunications Administrations (CEPT), at its meeting in March 2019, approved for publication ECC Report 299: "Measures to address potential blocking of MES operating in bands adjacent to 1518 MHz (including 1525-1559 MHz) at sea ports and airports".

The Report contains recommended proportionate national solutions to protect aeronautical and maritime MES at sea ports and airports in two phases: a short time first phase (e.g.7 years) intended to protect currently operating

MESs and the second phase to protect next generation MESs which are expected to meet the recommended blocking requirements (-30 dBm above 1520 MHz).

As a consequence, it is important that next generation MESs, with improved resilience as specified in the Report, are deployed and rolled out as quickly as possible. Eurocontrol, ICAO, IATA, **ICS**, IMO, IMSO and ESA **are kindly invited to take note of this report and to initiate steps, as appropriate, to enable the widespread deployment of equipment as soon as practicable.**

*As indicated under document NCSR 7/12 ICS will not support the proposal from the ECC CEPT.*

*Members should refer to Circular RN (19)06 and the associated annex, which outlines the implications of the CEPT ECC proposal, which are:*

- .1 seafarers may not be able to test the operation of satellite safety equipment during a Port State Control inspection or prior to departure from port, and it may not be possible to carry out maintenance or mandatory surveys as required;*
- .2 vessels may be non-compliant with their regulatory obligations (e.g. LRIT, SSAS) and therefore may not be able to operate;*
- .3 seafarers may be unable to receive information (e.g. EGC, MSI) requests, making route planning difficult and posing a risk to maritime safety; and*
- .4 seafarers may use applications that require reliable communications over all coastal areas and along connecting rivers and waterways to marine facilities, including all types of ports, harbours, marinas, berthing areas used by SOLAS vessels, which may be situated some way from the coast and will usually be near centres of population.*

*In the deployment of IMT, the following issues need to be addressed:*

- .1 The protection of existing MSS terminals by retaining PFD limits on IMT base stations.*
- .2 The derivation of a Mobile Earth Station receiver mask as a minimum requirement at ITU-R level.*
- .3 The establishment of IMO regulations requiring MSS terminals to be replaced on fitted vessels, and the process and timeline for establishing such regulations.*
- .4 The timeline for establishing related test standards and availability of type-approved MSS terminals.*
- .5 The timeline for replacing MSS terminals on all vessels.*

.6 *The continued protection of MSS terminals by establishing necessary PFD limits on IMT base stations.*

*Also refer to NCSR 7/12, NCSR 7/12/4, NCSR 7/12/7, 7/14/2*

**12/4 Liaison statement from ICAO – Adjacent band compatibility studies of IMT-Advanced systems in the mobile service in the band below 1 518 MHz with respect to MSS systems operating in 1 518 – 1 559 MHz Secretariat**

The Secretariat provides a liaison statement from ICAO regarding the Adjacent band compatibility studies of IMT – Advanced systems in the mobile service in the band below 1 518 MHz with respect to MSS systems operating in 1 518 – 1 559 MHz.

ICAO considers that any protection measures identified in response to Resolution 223 (Rev.WRC-15) must protect the large number of already-fielded aeronautical satellite receiving earth stations operating in the frequency band above 1,518 MHz (including those supporting aeronautical safety services operating in accordance with ICAO standards).

Additionally, ICAO considers that any timescales in transitioning to more relaxed protection measures which are derived on the anticipated performance of future satellite receiving earth stations should reflect the natural replacement cycle of aeronautical equipment, typically 25 years or more. This long lifecycle, which is the same as the lifecycle of commercial aircraft, is due to the very high cost associated with any upgrading of the equipment on-board aircraft, due to, inter-alia, revenue lost due to loss of aircraft flying time, airworthiness, and re-certification issues.

ICAO welcomes the identification of any measures on base-station and user-equipment transmissions around any airport that would avoid the potential for such harmful interference to aeronautical SATCOM receivers.

*ICS is supportive of the position from ICAO and the airline industry has the same issues as the maritime industry with the proposals from the CEPT ECC.*

*Also refer to NCSR 7/12/7.*

**12/5 Autonomous maritime radio devices and identities in the maritime mobile service CIRM**

CIRM provides information regarding man overboard-automatic identification system (MOB-AIS) devices, which are used extensively by mariners and serve an important role in maritime safety.

The new recommendation ITU-R M.2135-0 on Technical characteristics of autonomous maritime radio devices operating in the frequency band 156-

162.05 MHz implies that MOB-AIS devices which do not include Digital selective calling (DSC) functionality are to be designated as Autonomous maritime radio devices (AMRD) Group B.

Such a designation could result in these devices not being permitted to use the AIS1 and AIS2 channels. CIRM is of the view that MOB-AIS devices are not AMRD and are therefore beyond the scope of recommendation ITU-R M.2135-0.

The Sub-Committee is invited to consider the information provided and the recommendations in paragraphs 10 and 11 and take appropriate action.

**12/6 Considerations on future works to facilitate the application of NAVDAT China and France**

China and France consider the benefits of NAVDAT and the conditions necessary for its integration as a component of GMDSS, based on studies of the NAVDAT system, and proposes future work to facilitate the application of NAVDAT

The Sub-Committee is invited to:

- .1 note the information provided on the test results of the NAVDAT system; and
- .2 consider the proposals in paragraphs 12 and 13 and take action, as appropriate.

**ICS thanks China and France for document NCSR 7/12/6. ICS supports the work highlighting the benefits of NAVDAT.**

**The results of test measurements demonstrate the ability of NAVDAT to transmit more comprehensive information, in digital format, at a higher rate to ships than that of NAVTEX.**

**12/7 Draft Liaison statement to CEPT ECC Germany, Marshall Islands, ICS, IMSO and CIRM**

The co-sponsors propose a reply liaison statement to be sent to the Electronic Communications Committee (ECC) of the European Conference of Postal and Telecommunications Administrations (CEPT) regarding the publication of the ECC Report 299 on Measures to address potential blocking of MES operating in bands adjacent to 1 518 MHz (including 1 525-1 559 MHz) at sea ports and airports.

NCSR 5 noted the potential interference caused to Inmarsat terminals from Mobile/Fixed communications networks Supplemental downlink (MFCN SDL) base stations deployed within Europe near ports and waterways (NCSR 5/14).

NCSR 5 recognized the importance of the issue and had instructed the Joint IMO/ITU Experts Group (IMO/ITU EG) to prepare the necessary liaison statements on the possible interference with L-band maritime satellite communications and forward them directly to ITU-R WP 5B and the European Conference of postal and telecommunications administrations (CEPT) (NCSR 6/12, annex, appendix 3).

MSC 99 noted that the issue was of great concern to the maritime industry and therefore encouraged maritime administrations to liaise closely with their national authorities attending meetings of ITU-R and regional bodies concerned with spectrum management, with the aim to address this safety critical issue.

The consultation process regarding Report 299 has failed to act on the advice of concerned administrations and specialized organizations concerning the risk and consequences of interference to satellite communication services in the L-band used by ships and aircraft. In particular, the opinions expressed during the development of the Report regarding the Turkish and Italian Administrations' concerns and comments formally submitted during the public consultation by Italy, the United Kingdom, Turksat, Eurocontrol, IMSO, ICAO, European Space Agency (ESA), Inmarsat, International Air Transport Association (IATA), Airlines for Europe (A4E), European Organisation for Civil Aviation Equipment (EUROCAE), in addition to Lufthansa and ASRI, have not been taken onboard in the ECC Report 299.

Further action to support the maritime community in countering proposals to require unnecessary replacement of currently installed satellite terminal equipment operating in the frequency band 1 518-1 559 MHz is needed.

**ICS thanks the sponsors of documents NCSR 7/12, 7/12/3, 7/12/4 and 7/14/2 and is fully supportive of document NCSR 7/12/4, the liaison statement from ICAO.**

**ICS provided IMO/ITU EG 15 with a clear position as included in the report to the meeting, document IMO/ITU EG 15/8 paragraph 8.4.**

**In summary:**

**ICS welcomed the recognition in Section 5 of the Report of the need for measures to address potential MES terminal blocking, but the principle of proportionality should not be limited to measures taken by CEPT Members and should be extended to the proposals in Section 4 as applied to the shipping industry. Initiating steps to require replacement of existing MES terminals would not be a proportionate measure;**

**ICS was and remains unable to take the action as requested by the ECC of CEPT to support their proposals without proper consultation with the international shipping community; and**

**Without commitment, ICS would seek further consultation in an international forum on the need for proportionate measures to address potential MES terminal blocking in port areas.**

**ICS as co-sponsors of document NCSR 7/12/7 are therefore fully supportive of a reply liaison statement being sent to the ECC with respect to Report 299 on Measures to address potential blocking of MES operating in bands adjacent to 1 518 MHz (including 1 525-1 559 MHz) at sea ports and airports to address the issues contained in the draft liaison statement in the Annex to this submission.**

**12/8 Outcome of the World Radiocommunication Conference 2019 Secretariat**

The Secretariat provides information on the outcome of the International Telecommunication Union (ITU) World Radiocommunication Conference 2019, on issues of relevance to IMO.

The preparations in IMO have shown to be efficient and effective, in particular, by tasking the Joint IMO/ITU Experts Group at an early stage with the development of the draft IMO position. Making available IMO's draft position allows Member Governments and Regional Telecommunication Groups to take IMO's views into account at an early stage in the preparation process for the next Conference.

The Sub-Committee is invited to:

- .1 note the outcome of WRC-19; and
- .2 task the Joint IMO/ITU Experts Group to:
- .3 analyse the outcome of WRC-19 in line with the IMO position submitted to the Conference;
- .4 analyse the Resolutions of WRC-19 in order to identify major areas of interest for IMO and provide relevant input, as appropriate; and
- .5 prepare initial advice on a draft IMO position on WRC-23 Agenda items concerning matters relating to maritime services.

**12/9 Electromagnetic interference (EMI) effects of Light emitting diode (LED) lighting systems when co-located on board maritime vessels, and the EMI effects of LED on aeronautical systems. Comments on documents NCSR 7/12 and NCSR 7/12/1 Netherlands**

Netherlands comments on documents NCSR 7/12 (paragraphs 6.1 to 6.5) and

NCSR 7/12/1 and proposes an alternative approach for solving the issue of Electromagnetic interference (EMI) effects of Light emitting diode (LED) lighting systems when co-located on board maritime vessels, and the EMI effects of LED on aeronautical systems.

The Netherlands proposes a number of practical solutions towards a more comprehensive and flexible risk-based approach as follows:

- .1 In VHF/MF/HF radio receiving equipment, a mandatory dial-indication to the user could be required to show the actually received noise levels on a colour scaling e.g. green-orange-red that is based on the current rules. An additional solution could be to automatically log the measurements. During a radio survey, both the actual and historical measurements can be assessed. In this respect, it should be noted that the current equipment on board is sensitive enough to perform these measurements in principle. Such requirement could be achieved by, for example, amending the relevant instrument (i.e. resolution A.694(17)).
- .2 On newly built ships, during sea trials, a mandatory baseline measurement of the prevailing noise levels on board, as received through the installed VHF/MF/HF antennas, can be performed. This measurement could be used to assess the EMC compliance of the ship, i.e. to determine whether the ship is properly capable to receive GMDSS transmissions, even in the presence of sources of interference (including equipment that is not subject to type approval) as fitted. Such measurements could then be used as a reference for future measurements as well.
- .3 For VHF/MF/HF radio receiving equipment, it could be made mandatory for manufacturers to provide instructions in installation manuals for the placement of type approved equipment (in accordance with the SOLAS convention and relevant standards, e.g. IEC 60533/IEC 60945), relative to the antenna of the equipment. This could be achieved by amending the relevant IEC standards.

In addition to the above solutions, other risk-based trajectories, such as those developed by Lloyd's Register in their Naval Rules for the determination and elimination of EMC interference at ship's level, could be introduced as well. Such additional risk-based approach would enable achievement of EMC compatibility by using a more comprehensive set of measures than the single means of only allowing IEC 60533/IEC 60945 (or any other industrial standard) approved equipment on board, which is challenging to enforce as it has appeared.

The Sub-Committee is invited to note the information provided in this document, in particular the proposals contained in paragraphs 7 and 8 as outlined above, and take action, as appropriate.



The Republic of Korea provides comments on the report of the fifteenth meeting of the Joint IMO/ITU Experts Group on Maritime radiocommunication matters (NCSR 7/12) regarding the technical standardization for public mobile networks in the context of maritime safety. The report mentioned that IMO could be more proactive and get involved in the work of the 3rd Generation partnership project (3GPP) concerning maritime safety, taking into account the wide use in non-SOLAS vessels of public mobile broadband and the importance of emerging communication technologies which may enhance maritime safety and efficiency. It is proposed that IMO could keep monitoring and investigating the use of public broadband communication and get involved in the standardization work of emerging maritime communication technologies related to maritime safety. If necessary, IMO could offer appropriate support in standardization work to be harmonized with GMDSS.

The Republic of Korea proposes that IMO should keep monitoring and investigating the use of public broadband communication and the standardization work of emerging maritime communication technologies related to maritime safety aspects and encourage Member States to share related information within IMO. In addition, IMO needs to get involved in standardization work of emerging maritime communication technologies, such as 3GPP, concerning potential use for maritime safety and offer appropriate support to be harmonized with GMDSS.

The Sub-Committee is invited to carefully consider the comments provided in this document and take appropriate action.

#### **12/INF.6 3rd Generation partnership project (3GPP) IALA in the maritime domain**

IALA provides an update in the considerations made by IALA with respect to the developments within 3GPP that may support the maritime domain.

3GPP systems are intended to be a secure wireless system and offer the maritime community the following features:

- .1 Shore-to-ship and ship-to-shore: a secure, broadband, Internet protocol (IP) digital link capable of carrying voice, data and video.
- .2 Ship-to-ship (device to device): a secure, broadband, IP digital link capable of carrying voice, data and video which does not require a base station (from 3GPP release 14 onwards).

The demand for bandwidth is expected to grow as more maritime data services are defined and new requirements are documented. It is expected that commercial, global LTE roaming solutions with shipborne equipment for ship-to-shore and shore-to-ship communication will continue to be implemented to satisfy the need for high bandwidth connectivity to ships.

IALA will continue to monitor the development of the maritime vertical

domains within 3GPP.

**12/INF.13 Test measurements of NAVDAT system  
under real conditions**

**China and  
France**

This document presents test measurements of the NAVDAT system in MF and HF bands conducted by China and France, respectively.

*The results of test measurements demonstrate the ability of NAVDAT to transmit more comprehensive information, in digital format, at a higher rate to ships than that of NAVTEX, and provide sufficient technical information for further refinement of the technical parameters of the NAVDAT system and the future development of NAVDAT equipment.*

**ITEM 13: REVISION OF THE GUIDELINES ON PLACES OF REFUGE FOR SHIPS IN NEED OF ASSISTANCE**

The sub-committee will consider the proposed revision of the Guidelines on places of refuge for ships in need of assistance (resolution A.949(23)), to ensure that they remained up to date and continued to serve as an effective instrument providing a clear framework to deal with a ship in need of assistance seeking a place of refuge in a consistent and harmonized manner globally.

**Papers:**

- 13 Preliminary draft text of the revised Guidelines on places of refuge for ships in need of assistance Austria, ICS et al.**

The co-sponsors propose to revise resolution A.949 (23) on Guidelines on places of refuge for ships in need of assistance, this document sets out a preliminary draft structure and revision of the Guidelines.

This is proposed in order to make the Guidelines clearer, up to date and more operational, ensuring that they continue to serve as an effective instrument providing support for all parties involved in handling a ship in need of assistance seeking a place of refuge.

The Sub-Committee is invited to consider the information provided in this document, with the annexed preliminary draft revision of the Guidelines to be used as a base document, for further development by a working group.

*ICS has actively participated in the preparation of the draft revised guidelines and are supportive of the proposal.*

**ICS as a co-sponsor of document NCSR 7/13 is fully supportive of the draft revision of the Guidelines being used as a base document for further development and supports sending this to a working group.**

## **ITEM 14: DEVELOPMENTS IN GMDSS SATELLITE SERVICES**

The Sub-Committee will be invited to consider submissions on developments in GMDSS satellite services.

### **Papers:**

#### **14 Recognition of BeiDou Message Service System as a GMDSS Service provider China**

China presents information on pre-assessment of the BeiDou Message Service System (BDMSS) in relation to the criteria established by resolution A.1001(25), for consideration by the Sub-Committee in its evaluation and recognition of BDMSS as a Global Maritime Distress and Safety System (GMDSS) service provider.

China Transport Telecommunication and Information Group Co., Ltd (CTTIC) is the service provider of BDMSS. As required, CTTIC undertook pre-assessment of the service capabilities and performance of BDMSS against the criteria specified in resolution A.1001(25), taking into account the guidance provided in MSC.1/Circ.1414 and submitted the information, as contained in the annex, for verification and evaluation by the Sub-Committee.

The information on pre-assessment, as set out in the annex, for BDMSS to be considered for recognition and use in GMDSS provides evidence to show that:

- .1 BDMSS conforms with applicable criteria specified in resolution A.1001(25);
- .2 CTTIC will comply with the charging policies and provisions of resolution A.707(17), as amended;
- .3 CTTIC is committed to provide continuous, stable and reliable services for users of BDMSS with its sound financial standing and long-term service experience in satellite communications, and will continue to do so in the foreseeable future; and
- .4 CTTIC stands ready to submit any recognized services to oversight by IMSO and sign the required Public Services Agreement (PSA).

The Sub-Committee is invited to:

- .1 consider the information on pre-assessment of BDMSS contained in the annex;
- .2 verify and evaluate the information contained in the annex; and
- .3 invite IHO, WMO and other interested Member States and international organizations to review and provide advice, as appropriate.

**14/1 Status of the Cospas-Sarsat Programme**

**Cospas-Sarsat  
Secretariat**

The Cospas-Sarsat Secretariat provides a status report on the Cospas-Sarsat system, including system operations, significant developments, space and ground segments, beacons, false alerts, reporting by Rescue coordination centres (RCCs) on the use of the distress alert data provided and the results of Mission control centre-Single point of contact (MCC-SPOC) communication tests, and seeks NCSR views on these matters.

The Sub-Committee is invited to:

- .1 note the information provided on the status of the Cospas-Sarsat Programme;
- .2 provide feedback on notifications about Cospas-Sarsat System developments;
- .3 provide feedback on the video library made available publicly for use by SAR professionals, including any online access issues that might have been noted;
- .4 recommend possible improvements that could be made to ensure more reliable reporting by RCCs (back through the reporting chain) about events after receipt of a distress alert has been delivered to them by GMDSS mobile satellite service providers, including Cospas-Sarsat; and
- .5 provide details of any existing MCC-SPOC agreements/arrangements, and proposals for improving MCC-SPOC communications during tests and real alerts. \_\_\_\_\_

**14/2 Analysis and assessment of the GMDSS  
performance of Inmarsat Global Limited**

**IMSO**

IMSO provides the annual report by IMSO to IMO on Inmarsat's public service obligations for the provision of recognized mobile satellite communication services in the Global Maritime Distress and Safety System (GMDSS), as overseen by IMSO.

IMSO underlines the urgent need for further action to support the maritime community in countering proposals to force the unnecessary replacement of the currently installed satellite terminal equipment operating in the frequency band 1,518 – 1,559 MHz. To this end, IMSO has been contributing to the development of a draft liaison statement for NCSR 7 to consider in response to the most recent communication from ECC contained in document NCSR 7/12/3.

The Sub-Committee is invited to consider the information provided in this

document, in general, and in particular:

- .1 the conclusion of IMSO's overall assessment (paragraph 51); and
- .2 the concerns over potential interference caused to Inmarsat terminals by IMT base stations (paragraphs 45 to 50 - Protection of L-band maritime satellite communications).

*Also refer to NCSR 7/12, 7/12/3, 7/12/4, 7/12/7*

### **14/3 The introduction of additional GMDSS mobile satellite service providers Australia**

Australia advise that the approval by IMO and pending operational introduction of Iridium as a recognized mobile satellite service provider in GMDSS, offers the prospect of improvements in the capability, redundancy and coverage of GMDSS. It also results in a range of operational implementation issues that are being addressed unilaterally by Australia and many other Member States. It would be beneficial to articulate these issues for further discussion at IMO, to ensure that the operational introduction of Iridium by Maritime safety information providers occurs smoothly.

#### **Interoperability**

Resolution A.1001(25) lists the criteria for the provision of mobile satellite communication systems in GMDSS; however, this resolution of 2007 does not address interoperability, as at that time, there was only a single provider, Inmarsat.

Resolution A.1051(27) places an obligation on MSI providers to monitor broadcasts they originate to ensure correct dissemination; however, the method proposed is not practical in a multi-satellite environment with different orbital characteristics, satellite footprint and communication systems.

Without effective interoperability, additional MSI providers resources, including software, hardware and operator training, may be required to distribute and receive information through the systems of multiple providers (e.g. websites, FTP, email, API).

#### **Cost and revenue**

There are concerns about the cost impacts to MSI providers with the introduction of additional mobile satellite service providers in GMDSS. Where multiple satellite providers exist, the cost to the MSI providers of promulgating information has the potential to become unsustainable.

#### **Timeframe**

Australia would prefer to declare Full operating capability (FOC) following authorization and certification by the IMO EGC Coordinating Panel if this can be achieved before 1 January 2023.

The Sub-Committee is invited to:

- .1 note the work of the IHO EGC-API Working Group;
- .2 consider whether the implementation of a standardized API protocol could be included as one of the criteria when reviewing resolution A.1001(25);
- .3 consider whether resolution A.1051(27) requires review with regard to monitoring requirements for MSI broadcasts; and
- .4 liaise, as required, with other international organizations or affected parties on the cost impact of additional providers and options for appropriate solutions where multiple providers exist.

#### **14/INF.16 Monitoring of the GMDSS implementation of IMSO Iridium**

IMSO provides information regarding the progress on implementation of the recognized maritime mobile satellite services by Iridium.

IMSO provides information as to the signing of the Public Services Agreement between IMSO and Iridium Satellite LLC and other relevant matters regarding the GMDSS implementation of Iridium, as monitored by IMSO.

IMSO prepared a list of pending implementation issues that needed to be completed before IMSO can issue Iridium with the Letter of Compliance, which marks the entry into force of the Public Services Agreement (PSA) and commencement of Iridium's financial obligations to IMSO in respect of the oversight of GMDSS.

These issues, inter alia, include matters related to the type-approval of the Iridium GMDSS ship earth station, the status of the satellite constellation, network availability, ground segment redundancy, development of operational procedures, the launching of the Iridium Safety Voice service and execution of the PSA.

IMSO has been working in close cooperation with Iridium and has been monitoring the accomplishment of these implementation issues.

**ITEM 15: FURTHER DEVELOPMENT OF THE PROVISION OF  
GLOBAL MARITIME SAR SERVICES**

The Sub-Committee will consider the relevant parts of the report of the twenty-sixth meeting of the ICAO/IMO Joint Working Group (NCSR 7/16) and any other documents that may be submitted under this agenda item.

The Sub-Committee will consider matters related to the further development of the Global SAR Plan for the provision of maritime SAR services.

**Papers:**

No papers have been submitted under this agenda item.



**ITEM 16: GUIDELINES ON HARMONIZED AERONAUTICAL AND MARITIME SEARCH AND RESCUE PROCEDURES, INCLUDING SAR TRAINING MATTERS**

The Sub-Committee will consider the relevant parts of the report of the twenty-sixth meeting of the ICAO/IMO Joint Working Group and any other documents that may be submitted under this agenda item.

**Papers:**

**16 Report of the twenty-sixth meeting of the ICAO/IMO Joint Working Group on harmonization of Aeronautical and Maritime Search and Rescue Secretariat**

The Secretariat provides a report of the twenty-sixth meeting of the ICAO/IMO Joint Working Group on Harmonization of Aeronautical and Maritime Search and Rescue, which was held in Viña del Mar, Chile, from 9 to 13 September 2019.

The Sub-Committee is invited to:

- .1 consider the need to undertake work to improve the quality of the IAMSAR Manual, noting the identified need for funds if a technical writer was to be recruited, and take action, as appropriate (annex, paragraphs 3.1.2 to 3.1.8);
- .2 note the proposed amendments to the IAMSAR Manual finalized at this meeting which will be consolidated with other amendments at JWG 27 for endorsement by NCSR 8 and approval by MSC 104 and ICAO, and inclusion in the 2022 edition of the Manual (annex, paragraphs 3.1.12, 3.1.16 and 3.1.26, and appendices B and C);
- .3 note the establishment of several ad hoc email groups to prepare draft amendments for inclusion in the 2022 edition of the IAMSAR Manual, due to report to JWG 27 in 2020 (annex, paragraphs 3.1.19, 4.1.6, 4.6.4, 5.1.4, 5.2.3 and 6.2.4);
- .4 note that some members and observers have been invited to prepare draft amendments for inclusion in the 2022 edition of the IAMSAR Manual, due to report to JWG 27 (annex, paragraphs 3.1.22, 3.1.25 and 3.6.3);
- .5 note that an ad hoc email group has been invited to review IAMSAR Manual Volume II, chapter 4 on Search planning and evaluation concepts, and associated appendices K, L and N, and to report to a future JWG meeting (annex, paragraph 3.2.3);
- .6 note that the global community could benefit from regional forums and States addressing SAR matters in their reports and outputs (such as circulars, regional SAR plans, etc.) (annex, section 3.5);

- .7 note the view of JWG that information on the lack of common operational plans and standard operational procedures (SOP) for SAR operations applicable to hazardous and noxious substances (HNS) incidents should not be included in the IAMSAR Manual, but might be a subject to be addressed on the IMRF website (annex, section 4.2);
- .8 note that LRIT related information could be included in the SAR model courses and be shared on the IMRF website (annex, paragraph 4.3.4);
- .9 encourage SAR services to complete the LRIT questionnaire, available on the IMSO website, to share their experiences, comments or suggestions in relation to the LRIT system (annex, paragraph 4.3.5);
- .10 encourage the worldwide SAR community to make full use of the information-sharing services provided by IMRF, including the submission to IMRF of information that may be of value to SAR services (annex, paragraph 4.4.3);
- .11 note that JWG considered a proposal for new maritime search patterns (NCSR 6/17/4 (Turkey)), together with further information provided by Turkey, and after consideration, invited an ad hoc email group to update the proposal and present it to JWG 27, with a view to further consider its inclusion in the IAMSAR Manual (annex, paragraph 4.5.4);
- .12 note that JWG invited the observer delegation from Turkey to consider developing a generic maritime search and rescue flow chart for watch officers and present it to JWG 27 (annex, paragraph 4.5.6);
- .13 encourage Member States and SAR Services to share their experiences with any electronic night search developments, and to assist in the development of updated guidance on night searching by aircraft for inclusion in the 2022 edition of the IAMSAR Manual (annex, section 4.7);
- .14 note the discussion on the distribution of distress alerts to both aeronautical and maritime RCCs when the aeronautical and maritime SRRs were not aligned (annex, paragraph 5.1.2);
- .15 note that support from ICAO and IMO for the provision of technical assistance, such as the Pacific SAR Workshops, was considered to be of great importance (annex, section 5.3);
- .16 note the discussion on the distribution of distress alerts received by GMDSS recognized mobile satellite service providers (annex, section 6.1);
- .17 note the discussion on the modernization of GMDSS and endorse the JWG's view that no amendment to the current definition of "International NAVTEX service" in SOLAS chapter IV is required

(annex, section 7.2);

- .18 note that JWG encouraged SAR experts attending NCSR 7 to participate in the work of the Communications Working Group (annex, paragraph 7.2.6);
- .19 note the discussion on the use of a GMDSS digital distress alert format and manually entered ship's positions and encourage new GMDSS mobile satellite service providers to follow the requirements in standard IEC 61097-16 (annex, section 7.3.2);
- .20 note the discussion related to the preparation of draft guidance for RCCs, to provide feedback to GMDSS mobile satellite service providers on actions taken by an RCC relating to an alert message received, and that JWG accepted the offer from IMSO to prepare such a guidance, for consideration at JWG 27 (annex, paragraphs 7.3.3.2 to 7.3.3.6);
- .21 note the information regarding the planned introduction of the Galileo return link service (RLS) in 2019, to provide automatic acknowledgment messages (RLS Type-1) to 406 MHz distress beacons equipped with a Galileo receiver, through the Galileo E1 signal, and the discussion on a preliminary study to investigate the possibility of introducing a two-way communication service to be provided by the Galileo system by using RLS (annex, section 7.5);
- .22 note that the development of a set of core competencies could be of benefit to States in developing their training material (annex, paragraph 8.1.2);
- .23 note that the SAR assistance provided by developed to developing countries is an effective way to build up worldwide capacity on SAR and facilitate on-the-job training (annex, paragraph 8.2.2);
- .24 note that several SAR Academies are available around the world, which also contribute to capacity-building on SAR (annex, paragraph 8.2.3);
- .25 endorse the continuation of JWG for the next meeting scheduled to take place at IMO Headquarters in London from 12 to 16 October 2020 (annex, paragraph 9.6.1);
- .26 note the list of pending and new action items for JWG (annex, paragraph 9.7.1 and Appendix E);
- .27 approve the provisional agenda for JWG 27 (annex, paragraph 10.1 and Appendix F); and
- .28 note the report in general.

**16/1 Update on implementation of autonomous distress tracking of aircraft in flight United States**

The United States provides an overview on implementation of autonomous distress tracking of aircraft in flight and proposes guidance information for all SAR services.

The Sub-Committee is invited to:

- .1 review the draft guidance for use by SAR services regarding implementation of ADT of aircraft in flight, as set out in the annex; and
- .2 identify an appropriate method for distributing the draft guidance to the maritime SAR services for their review.

**16/2 GMDSS/GADSS ship-to-aircraft interoperability trial United States**

The United States advises that it is conducting trials which would enable distressed aircraft about to ditch to locate and alert nearby ships using GMDSS technology.

This trial is intended to evaluate how aircraft-to-ship intercommunications in an emergency using GMDSS and GADSS technology could perform. Since many, if not most, new aircraft can insert ship position into their onboard Flight management systems (FMS), doing so would allow distressed aircraft to fly directly to the ship of choice and land as close as possible using aircraft automation.

The Sub-Committee is invited to:

- .1 consider the information described in paragraphs 2 through 5;
- .2 invite the IMO/ICAO Joint Working Group to consider this information and the proposed trials, and how GMDSS and GADSS technology might enable direct aircraft-to-ship alerting and communications in an emergency;

**16/INF.3 Report on the twenty-first Combined Antarctic Naval Patrol 2018-2019 Argentina and Chile**

The co-sponsors provide information on the activities of the twenty-first Combined Antarctic Naval Patrol carried out by the submitting States.

The objective of this patrol was to enhance safety of navigation and carry out search and rescue operations and environmental conservation activities in the Antarctic continent.

**16/INF.5 Report on the 15th Black Sea Conference on Maritime search and rescue Georgia**

Georgia provides information on harmonization of maritime search and rescue

procedures, including SAR training matters carried out in the Black Sea area and the summary of outcome of the 15th Black Sea Conference on Maritime search and rescue (Black Sea SAR Conference), which was held in Batumi, Georgia, on 11 and 12 September 2019

**ITEM 17: AMENDMENTS TO THE IAMSAR MANUAL**

The Sub-Committee will consider the relevant parts of the report of the twenty-sixth meeting of the ICAO/IMO Joint Working Group (NCSR 7/16) and any other documents that may be submitted under this agenda item.

**Papers:**

No papers have been submitted under this agenda item.

**ITEM 18: UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY, AND ENVIRONMENT-RELATED CONVENTIONS**

The Sub-Committee will consider relevant unified interpretations submitted by Member States and international organizations, as well as any comments thereon, with a view to developing relevant IMO interpretations, as appropriate.

**Papers:**

**18 Clarification on examining and checking the operation of survival craft portable two-way VHF radiotelephone apparatus IACS, CIRM**

The co-sponsors seek clarification on whether expired primary batteries can be used to examine and check the operation of survival craft portable two-way VHF radiotelephone apparatus.

Recently, a PSC inspection determined the use of expired primary batteries to examine and check the operation of VHF radiotelephone apparatus as a deficiency and, subsequently, the ship was detained despite the presence of three valid dedicated primary batteries as required in the Revised Recommendation on Performance standards for survival craft portable two-way VHF radiotelephone apparatus (resolution MSC.149(77)). The expired batteries were clearly marked and separately stowed so that they could not be confused with dedicated primary batteries.

The understanding of the co-sponsors is that the use of expired primary batteries compliant with the requirements of paragraph 12.6 of resolution MSC.149(77) is acceptable and does not constitute a violation of the requirements in force, based on the following rationale.

According to the provisions of paragraph 12.6 of resolution MSC.149(77), batteries not intended for use in the event of a distress situation are permitted for use on board.

The purpose of examining and checking the operation of two-way VHF radiotelephone apparatus is to verify the apparatus itself is in a satisfactory condition. As such, any battery, other than a dedicated primary sealed battery, such as a secondary rechargeable or primary unsealed battery, may be used for this purpose.

Radio manufacturers permit the testing of portable two-way VHF radiotelephone apparatus using expired primary batteries. It is considered that modern VHF equipment is robust and will not be damaged by the use of low voltage batteries and is designed to undergo a controlled shutdown if the voltage supplied falls below a defined limit.

The Sub-Committee is invited to provide clarification on whether expired

primary batteries, which comply with the requirements of paragraph 12.6 of resolution MSC.149(77), can be used to examine and check the operation of two-way VHF radiotelephone apparatus.

*ICS is supportive of clarification being required if PSCO's are unable to interpret the existing provisions correctly.*

*Also refer to NCSR 7/18/1.*

**ICS thanks the co-sponsors for documents NCSR 7/18 and NCSR 7/18/1.**

**ICS fully supports the need for clarification on whether expired primary batteries, which comply with the requirements of paragraph 12.6 of resolution MSC.149(77), can be used to examine and check the operation of two-way VHF radiotelephone apparatus to avoid any further issues related to PCS inspections in this regard.**

**ICS would further support the draft UI in document NCSR 7/18/1.**

**18/1 Battery validity dates for survival craft portable CIRM  
two-way VHF radios**

CIRM proposes a unified interpretation of resolution MSC.149(77) relating to battery validity dates for survival craft portable two-way VHF radiotelephone apparatus.

*ICS is supportive of the draft UI – refer to NCSR 7/18.*



**ITEM 19: VALIDATED MODEL TRAINING COURSES**

The Sub-Committee will consider any documents that may be submitted under this agenda item related to the revision or validation of model training courses under the purview of the NCSR Sub-Committee.

**Papers:**

No papers have been submitted under this agenda item.

**ITEM 20: BIENNIAL STATUS REPORT AND PROVISIONAL AGENDA FOR NCSR 8**

The Sub-Committee will consider its biennial status report, taking into account the progress made at the session, and to prepare the draft provisional agenda for NCSR 8, in accordance with 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.5/Rev.1), for approval by MSC 102.

**ITEM 21: ELECTION OF CHAIR AND VICE-CHAIR FOR 2021**

In accordance with the Rules of Procedure of the Maritime Safety Committee, the Sub-Committee will be invited to elect its Chair and Vice-Chair for 2021.

## **ITEM 22: ANY OTHER BUSINESS**

The Sub-Committee will consider any other matters submitted by Member States or international organizations or referred to it by the Committees or other Sub-Committees.

### **Papers:**

#### **22 Progress on standards development by IEC International Electrotechnical Commission**

IEC TC80 prepares standards to support the performance standards of the Organization. The Sub-Committee is invited to note the progress in the work.

Technical Committee 80 of the International Electrotechnical Commission (IEC) is responsible for the preparation of standards for maritime navigation and communication equipment and systems.

These standards are prepared in order that the performance standards of the Organization, as well as the technical requirements of the International Telecommunication Union (ITU) and other relevant international organizations can be verified.

Ship Earth Station – IEC reports that this work has been completed and the standard has now been published.

Enhanced group call equipment – IEC reports that this work has been completed and the standard has now been published.

NAVTEX – IEC reports that this work has been completed and the standard has now been published.

Integrated navigation systems – IEC advises the target date for the publication of the new standard is 2021.

Presentation of navigation-related information – IEC advises the target date for the publication of the new standard is 2021.

Emergency position-indicating radio beacons – IEC advises the target date for the publication of the new standard is 2021.

#### **22/1 Review of IMO publications related to navigation, communication and search and rescue Secretariat**

The Secretariat provides information on IMO publications related to navigation, communication and search and rescue, and makes recommendations to enhance the quality and contents of IMO publications.

IMO's publishing activities provide the world's maritime community with numerous texts (conventions, codes, regulations, recommendations, guidelines, etc.) prepared by the Organization. There are over 200 titles available in English and many of them are translated into Arabic, Chinese, French, Russian and Spanish.

These publications are reviewed periodically, as and when changes occur, such as due to the adoption of new amendments to related instruments contained in the publications or new developments that should be reflected in those publications.

The ultimate goals of IMO publications are quality and usability. Enhancing these aspects should be part of a continuous review process with the assistance of experts on the relevant subjects.

In order to facilitate the review process of IMO publications (with the exception of model courses which are undertaken in accordance with the established separate process), consideration could be given to the establishment of editorial experts' groups, which could either work via correspondence or meet intersessionally, as and when required, depending on the volume of work and the specific tasks. These groups should be composed of experts on the specific subjects and should be small in terms of number of participants to facilitate the review process.

The Sub-Committee is invited to note the information in general and:

- .1 provide comments on the structure, organization and contents of existing IMO publications in terms of usability and make recommendations for improvement;
- .2 consider the development of new IMO publications;
- .3 consider the establishment of editorial experts' groups to assist with the review of specific IMO publications related to navigation, communication and search and rescue; and
- .4 instruct the working and expert groups to consider the review of IMO publications under their respective domains, including the possible development of new ones, and make necessary recommendations, including, if necessary, the preparation of terms of reference for editorial experts' groups.

**22/2 Issues encountered with MSI portrayal  
guidance in SN.1/Circ.243/Rev.2**

**Canada**

Canada advise of the challenges that have been encountered with the portrayal of Maritime safety information (MSI) because of guidance provided in SN.1/Circ.243/Rev.2 – Guidelines for the presentation of navigation-related symbols, terms and abbreviations.

Clarification from the Sub-Committee is requested on the degree of flexibility that can be exercised by the International Hydrographic Organization's S-124 Correspondence Group when developing portrayal for MSI.

The S-124 product specification development has reached a stage where testing has revealed that the current and forward vision on how navigational warning information is to be effectively and efficiently displayed on navigation systems does not work within the constraints imposed by the Guidelines in SN.1/Circ.243/Rev.2.

It is not possible to visually distinguish between navigational warnings and meteorological/ice warnings. Moreover, testing of the current guidelines has demonstrated a significant increase of clutter on the shipborne display and increased risk of confusing the user by assigning the same symbol to represent points and area patterns.

Canada believes that the WWNWS-S/C's S-124-CG needs clarification on what level of flexibility can be applied to SN.1/Circ.243/Rev.2 so that the S-124 product specification can be developed appropriately.

The Sub-Committee is invited to note the information provided and to clarify the level of flexibility that can be applied to the interpretation of SN.1/Circ.243/Rev.2 portrayal rules.

**ICS thanks Canada for document NCSR 7/22/2.**

**ICS attended the IHO Navigation working group, there is some confusion on the S-124 standard (Navigational Warnings), therefore supports the need for clarification on what level of flexibility can be applied to SN.1/Circ.243/Rev.2 so that the S-124 product specification can be developed appropriately.**

**22/3      Development of guidelines for the use of                      Republic of  
                 Electronic Nautical Publications (ENPs)                      Korea**

The Republic of Korea proposes development of the guidelines for the use of Electronic nautical publications (ENPs) in order to unify implementation of SOLAS regulation V/19.2.1.4.

The use of ENPs has rapidly increased in recent years. However, there are no specific guidelines approved by IMO other than those provided by service suppliers or issued by some Member States. These individual guidelines may have different interpretations and requirements, and it may result in deficiencies of port State control that might continuously evoke concerns.

Similarly, IMO has approved MSC.1/Circ.1503/Rev.1 on ECDIS – Guidance for good practice.

The Sub-Committee is invited to consider this document and take action as appropriate.

*ICS agrees to the development and use of ENPs as this should reduce the crews' administrative burden and human error in the updating process and can contribute to enhancing safety of navigation.*

*ICS further agrees that the guidelines for the use of ENPs should be developed, along with the requirements for adequate back-up arrangements and power supply.*

**ICS thanks the Republic of Korea for document NCSR 7/22/3.**

**ICS agrees that ENP use and back up arrangement guidelines should be developed to remove ambiguity. The footnote about "back-up arrangements" referred in SOLAS regulation V/19.2.1.5 is related only to electronic charts and there are no references to ENPs.**

**ICS therefore supports this proposal.**

**22/4      Conduct of search and rescue operations in      Georgia and  
             the northern and eastern parts of the Black      Ukraine  
             Sea, the Sea of Azov and the Kerch Strait**

The co-sponsors raise matters related to the conduct of search and rescue operations in the Black Sea.

**22/5      Report on monitoring of ECDIS issues by IHO      IHO**

IHO reports on the status of ECDIS-related standards, presents a roadmap of the introduction of the next generation of S-101 Electronic navigational charts (ENC) and explains the resulting implications for existing and new ECDIS installations. It is part of the continuing monitoring by IHO of ECDIS issues related to the implementation of the carriage requirements in SOLAS regulations V/19.2.10 and 11.

IHO's most relevant ECDIS related standard is the transfer standard for digital hydrographic content S-57. This standard has been used for official ENCs since November 2000 and has not been technically updated since then. This period of consolidation has facilitated a stable technical environment for data production and dissemination services to reliably feed ECDIS installations delivered by a variety of Original equipment manufacturers.

In support of digitization on board, the exchange of nautical information and the provision of maritime services in the context of e navigation, the IHO's S-100 Universal Hydrographic Data Model was adopted by the IMO in 2011 as the basis for technical harmonization of data services providing navigation related information exchange. S-100 is a contemporary, more versatile standard it incorporates the requirements of S-57 and is aligned with the ISO 19100 series of geographic information standards.

The S-100 framework has matured to an extent that the regular production

and dissemination of official ENC's in a new transfer standard, named IHO S-101, can now be envisioned. This new transfer standard is not substantially different from IHO S-57 in terms of cartographic content and maintains the same level in support for safe navigation but it offers additional, substantial advantages;

- .1 the operational elements of ECDIS software to process cartographic content can be more easily maintained since the display instructions are embedded in the dataset as part of the S-101 ENC delivery
- .2 S-101 ENC's enjoy a modernized method of encryption to improve robustness against cyber threats; and
- .3 the implementation of the capability to read and process S 101 ENC's, including the new encryption mechanism, offers the technical basis for future implementation of e navigation services relevant to ECDIS as a crucial element of Integrated Navigation Systems (INS)

In order to make S-101 ENC compatibility legally binding for new ECDIS after 1 January 2024, appendix 1 of the ECDIS Performance standards resolution MSC.232(82)) will need to be amended to include reference to the IHO standards S-98, S-100 and S-101.

S-98 establishes the basic rules on how a subset of S-100 based product specifications should interact with each other. It provides an interoperability catalogue that specifies the minimum set of predefined combinations of multiple S-100 based data that are loaded and displayed on navigation systems at any one time. This will enable the mariner to have a clear navigation picture with the different types of data that are available in parallel at any given time without obscuring the underlying chart information.

In order to maintain ECDIS devices already installed on SOLAS ships which are technically not ready nor required to be upgraded to S-101 ENC compatibility, and to comply with the applicable IMO regulations pertaining to existing navigation equipment, identical coverage will be provided for S-57 ENC's and S-101 ENC's for a transition period until there is no significant number of legacy systems in the field and all ECDIS in operation have become S-101 compatible This situation is expected near the end of the decade but will be continuously monitored to enable a decision to be made by the responsible IMO body.

As a consequence, new ECDIS systems to be brought into the market at the time when S-101 ENC coverage starts will have to be capable to process both transfer standard formats: S-57 ENC's and S-101 ENC's.

Safety of navigation will be maintained by cartographic content of both S-57 and S-101 standards. From the users perspective, presentation of cartographic and functional features to meet the IMO mandated content in a mixed environment of S-57 ENC's and S-101.

ENCs in one ECDIS device will be seamless and presented under the identical presentation regime for charted features and navigational objects

The Sub-Committee is requested to:

- .1 note the maintained status of IHO's ECDIS-related standards;
- .2 acknowledge the ongoing effort to develop and test S-100 based data product specifications;
- .3 acknowledge the proposed introduction of IHO S-101 ENCs as a transfer standard for official charts in ECDIS; and
- .4 consider the need for an output to amend appendix 1 of resolution MSC.232(82) to include references to S-98, S-100 and S-101.

*Whilst supportive of the development of ENC, the Secretariat has concerns over the transition process and the need to avoid a similar situation shipowners found themselves in leading up to and during the transition to S-57.*

**ICS thanks IHO for document NCSR 7/22/5.**

**ICS supports the work carried out in relation to the S-100 framework, providing, as stated, the S-57 and S-101 standards will be available in a mixed environment for legacy systems and no changes need to be made to the current systems running S-57.**

**ICS would however raise concerns expressed when S-57 was introduced regarding the presentation library. Shipowners experienced that the transition to S-57 was particularly onerous with late release of S-57 ENC by suppliers right up to the implementation date, changes required to ECDIS software and in some cases EDCIS units requiring replacement due to lack of compatibility and a lack of certificates of approval. These issues led to high expense and some vessels not meeting the implementation date through no fault of their own.**

**ICS would seek reassurance that a similar situation will not occur during the transition to S-101.**

**22/6 Consequential amendments to resolution MSC.163(78) related to the adoption of resolution MSC.471(101) United States**

The United States proposes consequential amendments to update resolution MSC.163(78) to reference and reflect the adopted resolution MSC.471(101), which revised the EPIRB performance standards, for VDR installations on or after 1 July 2022.

In June 2019, the Maritime Safety Committee adopted resolution MSC.471(101), updating the performance standards for float-free Emergency position-indicating radio beacons (EPIRB) operating on 406 MHz. The existing performance standards for shipborne Simplified voyage data recorders (S-VDRs), resolution MSC.163(78), references resolution A.810(19) and should



be updated appropriately to include MSC.471(101).

The Sub-Committee is requested to consider the proposed consequential amendments to resolution MSC.163(78) to ensure an EPIRB installed in a float-free S-VDR complies with the requirements of the appropriate EPIRB performance standards based on the date of installation.

**22/7 Consequential amendments to resolution MSC.333(90) related to the adoption of resolution MSC.471(101) United States**

The United States proposes to update resolution MSC.333(90) to reference MSC.471(101) for VDRs installed after 1 July 2022.

In June 2019, the Maritime Safety Committee adopted resolution MSC.471(101), updating the performance standards for float-free Emergency position-indicating radio beacons (EPIRB) operating on 406 MHz. The existing performance standards for Voyage data recorders (VDR), resolution MSC.333(90), references resolution A.810(19) and should be updated appropriately to include resolution MSC.471(101).

The Sub-Committee is requested to consider the proposed consequential amendments to resolution MSC.333(90) to ensure an EPIRB installed in a float-free VDR complies with the requirements of the appropriate EPIRB performance standards based on the date of installation.

**22/INF.9 AIS messages confused with actual maritime accidents Japan**

Japan provides information on confirmed cases of the use of Automatic identification system (AIS) in the sea area around Japan, that may be confused with actual maritime accidents, and shares its concern and requests cooperation to prevent such cases.

**22/INF.12 Preliminary Report of the WMO/IMO International Symposium on Extreme Maritime Weather: Towards Safety of Life at Sea and a Sustainable Blue Economy IMO and WMO Secretariats**

The co-sponsors provide the preliminary report of the WMO/IMO International Symposium on Extreme Maritime Weather: Towards Safety of Life at Sea and a Sustainable Blue Economy, held from 23 to 25 October 2019.

The symposium participants agreed that "closing the gap" in understanding between the maritime industry and met-ocean community is urgently needed, to ensure the safety of life and protection of property at sea while increasing the efficiency of maritime operations.

There was agreement that ships must be encouraged to more actively participate in programmes such as the WMO and Intergovernmental

Oceanographic Commission (IOC) Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM) Voluntary Observing Ship (VOS) scheme.

Data exchange between parties is a vital part of collaboration and "closing the gap".

There is a need to better define impacts of the weather on the industry.

There is also a need for accessible real time information from ports and harbours before vessels approach them.

Participants agreed that a formalized collaboration between WMO and IMO regarding extreme maritime weather issues would help attain the aforementioned needs and goals.

**22/INF.14 Report of the third e-Navigation Underway Asia-Pacific Conference 2019** Republic of Korea

The Republic of Korea provides this report on the highlights of the third e-Navigation Underway Asia-Pacific Conference, held in Seoul, 2-3 September 2019.

**22/INF.17 Improved safety of pilot transfer arrangements: Results of Safety Campaign/Survey** IMPA

IMPA provides a summary report on a safety campaign carried out by the Association during October 2019 as requested by the Organisation.

IMPA considers that the level of defects remains too high.

IMPA was optimistic that the inclusion of pilot ladders in the ship's safety equipment inspection regime under the changes to SOLAS regulation V/23, through resolution A.1045(27) in 2011 would have had an effect on the standards found in future campaigns/surveys. This has not happened to any significant degree.

IMPA is also perturbed about the number of vessels that are built or are modified in such a way that they cannot comply with the construction standards required by IMO. Rubbing strakes and ballast tanks that prevent ladders from laying on the vessels' sides are being signed off by class societies and other signatories to SOLAS.

The IMPA Safety Survey may be viewed in colour via the link:  
<http://www.impahq.org/admin/resources/impasafety-brochure-2019-2.pdf>

**22/INF.19 Report on the activities of the Amver Program** United States

The United States provides a report on the activities of the Amver program.

The Automated Merchant Vessel Reporting (Amver) programme provides assistance to mariners in distress through voluntary support from participating vessels. The Amver Center operates and maintains a vessel plot database, a valuable Search and rescue (SAR) tool for the international maritime community, and provides SAR surface pictures (SURPIC) of participating Amver vessels to requesting Rescue Coordination Centres, free of charge, and enables timely assistance in many distress situations.

This document provides the Amver annual report and performance metrics for the 2018 calendar year.

**22/INF.20 Considerations on future revision of MSC.1/Circ.1503/Rev.1 China**

China provides considerations on the future revision of ECDIS – Guidance for Good Practice (MSC.1/Circ.1503/Rev.1)

China proposes to establish a unified type approval procedure for ECDIS software and its updates, and a more efficient information exchange mechanism of ECDIS specifications and performance standards between IMO and IHO, which would benefit all stakeholders.

Due to the possible complexity in revising the Guidance, China offers the following considerations and seeks support from Member States and organizations, to allow submission of a relatively mature draft Guidance to NCSR 8 in 2021.

- Definition and categorization of "software"
- Further clarification on the definition of "type approval"
- Definition for the terms "latest" and "up-to-date"
- Further clarification on the necessity of IMO adoption for transition of applicable ECDIS standards from S-57 to S-100
- Exemption of ECDIS software updates from S-57 based standard to S-100 based standards
- ECDIS familiarization training

The Sub-Committee is invited to note the information provided for the future revision of the Guidance and invite interested Member States and Organizations to participate in this work led by China.