

Outcomes of NCSR3

Submitted by IHB

SUMMARY

Executive Summary: This document provides details of the outcomes of NCSR3, which are relevant to WWNWS-SC

Action to be taken: Paragraph 2.

Related documents: NCSR3/29 dated 22 March 2016

1. NCSR3 was held at IMO Headquarters in London 29 February – 4 March 2016. The following items are of relevance to WWNWS-SC:

- Agenda Item 3: Routing measures and mandatory ship reporting systems;
- Agenda Item 4: Amendment to the General Provisions on Ships' Routing (IMO Resolution A.572(14)) on establishing multiple structures at sea;
- Agenda Item 5: Recognition of Galileo as a component of the IMO World-Wide Radio Navigation System (WWRNS);
- Agenda Item 6: Additional modules to the revised Performance Standards for Integrated Navigation Systems (INS) relating to the harmonization of bridge design and display information;
- Agenda Item 9: Guidelines for the harmonized display of navigation information received via communications equipment;
- Agenda Item 11: Analysis of developments in maritime radiocommunication systems and technology;
- Agenda Item 12: Performance Standards for shipborne GMDSS equipment to accommodate additional providers of GMDSS satellite services;
- Agenda Item 13: Interconnection of NAVTEX and Inmarsat SafetyNET receivers and their display on integrated navigation display systems;
- Agenda Item 14: Completion of the detailed review of the Global Maritime Distress and Safety System (GMDSS);
- Agenda Item 15: Updating of the GMDSS Master Plan and guidelines on Maritime Safety Information (MSI) provisions;
- Agenda Item 28: Any other business.

The relevant discussions are summarized hereinafter:

a. Agenda Item 3 - Routeing measures and mandatory ship reporting systems

The Sub-Committee approved corrections to traffic separation schemes in the existing routeing system *Off Friesland* and in the mandatory route for tankers from *North Hinder* to *the German Bight* and vice versa; as these corrections do not affect the visualization of the charts but only the description in the ENC, the Sub-Committee agreed these could be implemented with immediate effect after the approval of the Maritime Safety Committee (MSC).

In relation with ships' routeing measures off the coast of Belgium and The Netherlands between *West Hinder*, *North Hinder* and *Maas West* Traffic Separation Schemes (TSS), the NCSR approved:

amendments to the existing TSS *In the Approaches to Hook of Holland and at North Hinder*, amendments to the TSS *At West Hinder* and adjacent routeing measures, amendments to the routeing measures related to the *Approaches to the Schelde estuary*, and the establishment of new routeing measures *In Windfarm Borssele*.

The Sub-Committee approved the establishment of two new TSS *Off Cape Leeuwin*, Australia and *In the Corsica Channel* in the Mediterranean as well as amendments to the inshore traffic zone for the TSS *In Bornholmsgat* in the Baltic Sea and to the existing area to be avoided *Off the coast of Ghana* in the Atlantic Ocean.

The provisions agreed by the Sub-Committee will now be submitted to the MSC for adoption at its 96th session in May 2016. Implementation of the provisions mentioned in paragraphs 2 and 3 will be not less than six months after adoption by the MSC.

b. Agenda Item 4 - Amendment to the General Provisions on Ships' Routeing (IMO Resolution A.572(14)) on establishing multiple structures at sea

The Sub-Committee approved amendments to the General provision on ships' routeing (IMO Resolution A.572(14)) in relation with the establishment of multiple structures at sea.

c. Agenda Item 5 - Recognition of Galileo as a component of the World-Wide Radio Navigation System

The NCSR agreed to advise the MSC that the Galileo system could be recognised as a future component of the World-Wide Radio Navigation System (WWRNS).

d. Agenda Item 6 - Additional modules to the revised Performance Standards for Integrated Navigation Systems relating to the harmonization of bridge design and display information

e. Agenda Item 9 - Guidelines for the harmonized displayed of navigation information received via communications equipment

f. Agenda Item 13 - Interconnection of NAVTEX and Inmarsat SafetyNET receivers and their display on Integrated Navigation Display Systems

g. Agenda Item 28 - Any other business - Development of guidance on the Standardized (or S) Mode of operation of navigation equipment

The NCSR considered under these Agenda Items several submissions related to the harmonized display of navigation information in relation to the outputs agreed by MSC at its 95th session (see Reference A). The IHB reported, on behalf of the IHO, on the contribution of the S-100 framework to the harmonized display of navigation information. The need for coordination between related activities conducted by the IHO and the IMO was highlighted, including the opportunity of activating the IMO/IHO Harmonization Group on Data Modelling, which had been previously authorized by MSC at its 90th session (see Reference B). Expectations that the output would provide a simplified and more user-friendly display of Marine Safety Information were expressed.

The following arrangements were agreed for progressing the relevant planned outputs:

- a. Item 6: NCSR agreed to establish a Correspondence Group (CG) on the Development of additional modules to the INS Performance standards, under the coordination of China, to develop the new draft modules to the INS Performance standards.
 - b. Item 9: NCSR invited Norway to coordinate a joint proposal from interested Member States and international organizations to NCSR 4 containing draft Guidelines for the harmonized display of navigation information received via communications equipment.
 - c. Item 13: NCSR agreed to invite the MSC to extend the target completion year for this output to 2017 and invited the United States and interested Member States and/or organizations, if required, to submit revised proposals, as appropriate, to NCSR 4.
 - d. Item 28: NCSR noted that the output on S-mode is to be addressed in the post-biennial agenda (2018-2019).
- h. Agenda Item 11 - Analysis of developments in maritime radiocommunication systems and technology**

The NCSR endorsed a comprehensive list of conditions which would need to be fulfilled before the Iridium system could be recommended for recognition as a mobile satellite system service provider of the GMDSS. The Sub-Committee recognised that the process had identified a need to review the IMO Resolution A.1001(25), which details the criteria to be met for a provider seeking recognition as a service provider of the GMDSS.

- i. Agenda Item 12 - Performance Standards for shipborne GMDSS equipment to accommodate additional providers of GMDSS satellite services**

The Sub-Committee considered a proposal from the USA, which provided draft performance standards for shipborne GMDSS equipment to accommodate additional providers of GMDSS satellite services. Due to the complexity of the proposal and the time available, the NCSR agreed to invite MSC to extend the work for an additional year, until 2017, and invited the USA to coordinate this work and submit a revised draft proposal for consideration at NCSR 4 in 2017.

- j. Agenda Item 14 - Completion of the detailed review of the Global Maritime Distress and Safety System (GMDSS)**

The Sub-Committee endorsed the draft outcome of the detailed review of the GMDSS and invited the MSC to approve the review and continue the project in developing the GMDSS Modernization Plan, for which a CG was formed, under the coordination of the USA, in anticipation of the Committee's approval.

k. Agenda Item 15 - Updating of the GMDSS master plan and guidelines on MSI provisions

The Sub-Committee received a report from the Chair of the IMO NAVTEX Panel providing an update on the status of NAVTEX stations. The Chair of the IHO WNWNS-SC reported on the activities of the Sub-Committee, highlighting the progress on the S-100 based Product Specification for Navigational Warnings - S-124, and the capacity building training provided to the East Asia Hydrographic Commission and Mediterranean and Black Seas Hydrographic Commission. The NCSR endorsed the proposed amendments to the International SafetyNET manual and the IMO NAVTEX Manual prepared by the WNWNS-SC (see Reference C), identifying only minor editorial amendments, and instructed the IMO Secretariat to draft the necessary MSC Circulars for consideration and approval by the MSC at its 96th session in May 2016.

The Sub-Committee noted that amendments to the GMDSS Master Plan had been distributed in GMDSS/Circ.18 and Administrations were encouraged to check their national data for accuracy.

l. Agenda Item 28 - Any other business - ECDIS issues

The IHO submitted a document reporting on the monitoring of ECDIS issues and chart coverage. The IHO reported the recent request of industry, endorsed by the ENC Standards Maintenance Working Group, to extend by one year, until 31 August 2017, the transition period for upgrading existing ECDIS systems to meet the revised set of IHO standards which came into force on 31 August 2015 for new ECDIS systems (see Reference D). The Sub-Committee agreed the one-year extension. Noting the indication in the IHO report of the apparent and inappropriate use of the ECDIS Data Presentation and Performance Check by port State control and vetting inspectors, the Sub-Committee agreed to invite the MSC to note the issue and refer it to the Sub-Committee on Implementation of IMO Instruments (III).

The discussion of ECDIS issues was also informed by an off-session presentation coordinated by INTERTANKO, the International Association of Independent Tanker Owners. The presentation reported the wide variations in the skills of “certified ECDIS users”, a prevalent lack of awareness of software maintenance requirements and a lack of appropriate procedures aboard ships. The presentation questioned the relevance of some provisions of the IMO ECDIS Performance Standards related to display options. The presentation highlighted the lack of flexibility in setting the safety depth and the difficulty to optimize the anti-grounding function due to the insufficient density of contour lines in most Electronic Navigational Charts

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

Annex:

A. Extract from NCSR3/29.

3 ROUTEING MEASURES AND MANDATORY SHIP REPORTING SYSTEMS

Corrections to existing routeing systems

3.1 The Sub-Committee considered a proposal by the Netherlands (NCSR 3/3) on corrections to the amendments to the existing traffic separation schemes (TSSs) "Off Friesland" and to the amendments to the mandatory route for tankers from North Hinder to the German Bight.

3.2 After some discussion, the Sub-Committee agreed to the proposed corrections, and instructed the Navigation Working Group to consider the entry-into-force date of these corrections and advise the Sub-Committee, as appropriate (paragraph 3.23 refers).

Preliminary assessment of ships' routeing proposals

3.3 The Sub-Committee recalled that NAV 51 had agreed that a preliminary assessment of ships' routeing proposals would be made by the Chairman in consultation with the Secretariat and the Chairman of the relevant working group and disseminated as a working paper. In this context, the Sub-Committee noted document NCSR 3/WP.3, outlining a preliminary assessment of the ships' routeing proposals.

Ships routeing measures Off the Netherlands-Belgian coast between West Hinder, North Hinder and Maas West TSSs

3.4 The Sub-Committee, noting that the general introduction outlining the overall intent of a joint Belgian and Dutch proposal provided by Belgium and the Netherlands (NCSR 3/3/1) and the Formal Safety Assessment (FSA) report provided by the Netherlands (NCSR 3/INF.3) did not require a particular decision in plenary, referred it to the Navigation Working Group for information in relation to the proposals set out in documents NCSR 3/3/2, NCSR 3/3/3, NCSR 3/3/4 and NCSR 3/3/5.

Amendments to the existing TSSs "In the Approaches to Hook of Holland and at North Hinder"

3.5 The Sub-Committee, noting that the proposal by Belgium and the Netherlands (NCSR 3/3/2) on amendments to the existing TSSs "Maas West Outer" and "North Hinder South" as well as the intermediary precautionary area "North Hinder Junction" and for the addition of a new TSS "Off North Hinder" as part of the revision of the routeing system "In the Approaches to Hook of Holland and at North Hinder" did not require a particular decision in plenary, referred it to the Navigation Working Group for detailed consideration and advice.

Amendments to the existing TSS "At West Hinder" and adjacent routeing measures

3.6 The Sub-Committee, noting that the proposal by Belgium and the Netherlands (NCSR 3/3/3) on amendments to the existing TSS "At West Hinder" and adjacent routeing measures as part of the revision of the routeing system "At West Hinder" did not require a particular decision in plenary, referred it to the Navigation Working Group for detailed consideration and advice.

Routeing measures other than TSS "Approaches to the Schelde estuary"

3.7 The Sub-Committee, noting that the proposals by Belgium and the Netherlands (NCSR 3/3/4) on amendments to existing routeing measures other than TSSs concerning the precautionary area "In the vicinity of Thornton and Bligh Banks" and the establishment of new routeing measures other than TSSs distinguished as "Approaches to the Schelde estuary" in

the sea area between the existing TSSs North Hinder, West Hinder and Maas West off the Dutch and Belgian coast did not require a particular decision in plenary, referred it, with some observations, to the Navigation Working Group for detailed consideration and advice.

"Windfarm Borssele"

3.8 The Sub-Committee, noting that the proposals by Belgium and the Netherlands (NCSR 3/3/5) on new routing measures other than TSS concerning the precautionary area "Windfarm Borssele" and an area to be avoided distinguished as "Windfarm Borssele corridor" in the sea area between the existing TSSs North Hinder, West Hinder and Maas West off the Dutch and Belgian coast did not require a particular decision in plenary, referred it, with some observations, to the Navigation Working Group for detailed consideration and advice.

Establishment of new TSSs and associated measures

Off Cape Leeuwin, Australia

3.9 The Sub-Committee, noting that the proposal by Australia (NCSR 3/3/7) on the establishment of a TSS Off Cape Leeuwin, Australia did not require a particular decision in plenary, referred it, with some observations, to the Navigation Working Group for detailed consideration and advice.

"In the Corsica Channel"

3.10 The Sub-Committee, noting that the proposal by France and Italy (NCSR 3/3/8) on the establishment of a new ships' routing system in the Corsica Channel waters between the Tuscan archipelago and the north-eastern coast of Corsica did not require a particular decision in plenary, referred it, with some observations, in particular, related to mandatory and non-mandatory TSS, to the Navigation Working Group for detailed consideration and advice, allowing some modifications to be made on the proposal.

Amendments to existing TSSs and associated measures

Inshore traffic zone for the existing TSS "In Bornholmsgat"

3.11 The Sub-Committee, noting that the proposal by Denmark and Sweden (NCSR 3/3/9) to amend an inshore traffic zone (ITZ) of the existing TSS "In Bornholmsgat" in the Baltic Sea with the aim of facilitating local coastal traffic did not require a particular decision in plenary, referred it to the Navigation Working Group for detailed consideration and advice.

Routing measures other than TSSs

Amendment to the existing area to be avoided Off the coast of Ghana in the Atlantic Ocean

3.12 The Sub-Committee, noting that the proposal by Ghana (NCSR 3/3/6) on amendments to the existing area to be avoided (ATBA) in the Jubilee Oil Fields off the coast of Ghana in the Atlantic Ocean did not require a particular decision in plenary, referred it, with some observations, to the Navigation Working Group for detailed consideration and advice.

3.13 The Sub-Committee noted the statement made by the delegation of Côte d'Ivoire, as set out in annex 14. The Sub-Committee further noted the response by the delegation of Ghana, as also set out in annex 14.

Model document templates for ships' routing and reporting system proposals

3.14 The Sub-Committee noted the information provided by the Secretariat on the Model document templates for ships' routing and reporting system proposals and, in particular, that these templates could be downloaded in Word format from the IMO website at the following link: www.imo.org/en/OurWork/Safety/Navigation/Pages/ShipsRouting.aspx

3.15 The Sub-Committee recalled that these templates were meant to be used by Member Governments intending to submit a proposal for ships' routing or a ships reporting system, along with the provisions in SOLAS regulations V/10 and V/11, the *General provisions on ships' routing* (resolution A.572(14), as amended), the *Guidelines and criteria for ship reporting systems* (resolution MSC.43(64), as amended by resolutions MSC.111(73) and MSC.189(79)), the General principles for ship reporting systems and ship reporting requirements (resolution A.851(20)), and the Guidance note on the preparation of proposals on ships' routing systems and ship reporting systems (MSC.1/Circ.1060, as amended). It was further recalled that Member Governments were recommended to use all guidance in complementarity and none of these alone.

Guidance on amendments to existing IMO adopted ships' routing systems

3.16 The Chairman drew the Sub-Committee's attention to paragraph 3.17 of the *General provisions on ships' routing* (resolution A.572(14)), as amended, which stated: "A routing system, when adopted by IMO, shall not be amended or suspended before consultation with, and agreement by, IMO unless local conditions or the urgency of the case require that earlier action be taken." The intention of this requirement was to ensure consistency and predictability in routing measures and the charting of such measures, particularly with regard to TSSs.

3.17 Accordingly, the Chairman urged Member Governments to abide by this requirement and inform the Organization of any planned changes to an IMO-adopted routing measure so that the formal procedures for amendments were followed in line with the *General provisions on ships' routing*.

Review of adopted mandatory ship reporting systems

3.18 The Chairman recalled the procedure followed for previous sessions of the NAV and NCSR Sub-Committees, when the Chairman had subsequently taken the initiative to bring to the attention of Member Governments the need, in accordance with SOLAS regulation V/11.11 and section 4.4 of resolution MSC.43(64), to carry out an evaluation of adopted mandatory ship reporting systems and appealed to Member Governments to undertake this exercise.

3.19 Accordingly, the Chairman suggested once again that Member Governments should review the various ship reporting systems adopted by the Organization, at an early date, to ensure that they were all up to date.

Establishment of the Navigation Working Group

3.20 The Sub-Committee established the Navigation Working Group under the chairmanship of Captain M. De Gracia (Panama) and instructed it, taking into account decisions, comments and proposals made in plenary, to consider:

- .1 the entry-into-force date of the endorsed corrections to traffic separation schemes in the existing routing system "Off Friesland" and in the mandatory route for tankers from North Hinder to the German Bight (NCSR 3/3), and advise the Sub-Committee, as appropriate; and

- .2 documents NCSR 3/3/1, NCSR 3/3/2, NCSR 3/3/3, NCSR 3/3/4, NCSR 3/3/5, NCSR 3/3/6, NCSR 3/3/7, NCSR 3/3/8 and NCSR 3/3/9, taking into account NCSR 3/INF.3, and prepare ships' routing measures, as appropriate, for consideration and approval by the Sub-Committee with a view to adoption by the Committee,

and submit its report on Thursday, 3 March 2016.

Report of the Navigation Working Group

3.21 Having received and considered the working group's report (NCSR 3/WP.4), the Sub-Committee approved it in general and, in particular, took action as summarized in the ensuing paragraphs.

3.22 The Sub-Committee noted that Brazil, Greece and the Philippines had also attended the Navigation Working Group.

Corrections to existing routing systems

3.23 The Sub-Committee agreed that the draft corrections to the amendments to the existing TSSs "Off Friesland" and to the amendments to the mandatory route for tankers from North Hinder to the German Bight, as set out in annexes 1 and 2, should take immediate effect after the approval by the Committee, and invited the Committee to approve them for dissemination by means of corrigenda to COLREG.2/Circ.66, annex 3 and SN.1/Circ.327, annex 5.

New and amended TSSs and associated measures

3.24 The Sub-Committee approved the following new, and amendments to existing, TSSs, as set out in annex 3, which the Committee was invited to adopt:

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

for dissemination by means of a COLREG circular.

Routeing measures other than TSSs

3.25 The Sub-Committee approved the establishment of the following new, and amendments to existing, routeing measures other than TSSs, as set out in annex 4, which the Committee was invited to adopt:

- .1 establishment of new two-way routes and precautionary areas "Approaches to the Schelde estuary", superseding the existing precautionary area "In the vicinity of Thornton and Bligh Banks";
- .2 establishment of new routeing measures "In Windfarm Borssele"; and
- .3 amendments to the existing area to be avoided "Off the coast of Ghana in the Atlantic Ocean",

for dissemination by means of an SN circular.

Date of implementation

3.26 The Sub-Committee agreed to recommend to the Committee that the:

- .1 routeing measures set out in paragraphs 3.24.1, 3.24.2 and 3.25.3 be implemented six months after their adoption by the Committee;
- .2 routeing measures set out in paragraph 3.24.5, be implemented on 1 January 2017; and
- .3 routeing measures set out in paragraphs 3.24.3, 3.24.4, 3.25.1 and 3.25.2 be implemented on 1 June 2017.

Concern expressed by the Navigation Working Group

3.27 The Sub-Committee noted the concern expressed by the Group in relation to the challenges arising from time constraints, volume of work, and in particular, the relevance of the *Preliminary assessment of proposals on ships' routeing systems and ship reporting systems* (NCSR 3/WP.3), as presented by the Chairman of the Sub-Committee (paragraph 26.7 refers).

Statement

3.28 The delegation of Panama made a statement that "this delegation agrees with the routeing measure for the Corsica Channel and supports its approval. However, following the adoption of the proposal submitted in document NCSR 3/3/8, and given the Sub-Committee's decision to proceed with the proposal in the form in which it was submitted to the plenary, Panama takes it that the Sub-Committee Chairman's assessment presented in document NCSR WP.3, concerning adherence to the requirements for routeing proposals contained in documents MSC/Circ.1060 and MSC.1/Circ.1060/Add.1, is an exercise that ceases to have any validity and relevance for future sessions. Moreover, it understands that, whatever State may submit proposals in future, the Sub-Committee will be obliged to examine them with the aim of finalizing them and, in particular, to assist all Member States equally, regardless what information is deemed to be lacking in the original proposal, which may be brought directly to the working group set up to examine it".

4 AMENDMENT TO THE GENERAL PROVISIONS ON SHIPS' ROUTEING (RESOLUTION A.572(14)) ON ESTABLISHING MULTIPLE STRUCTURES AT SEA

4.1 The Sub-Committee recalled that MSC 95 had agreed to include, in the 2016-2017 biennial agenda of the NCSR Sub-Committee and the provisional agenda for NCSR 3, an output on "Amendment to the General provisions on ships' routeing (resolution A.572(14)) on establishing multiple structures at sea", with a target completion year of 2016 (MSC 95/22, paragraph 19.8).

4.2 The Sub-Committee considered the proposal by Denmark and the Netherlands (NCSR 3/4) providing a draft text for a new paragraph in the *General provisions on ships' routeing* (resolution A.572(14)), as amended) (GPSR), addressing the necessity to ensure safety of navigation when planning and establishing a concentration of multiple objects at sea in relation to (newly) established routeing measures.

4.3 The Sub-Committee noted with appreciation the supporting Assessment Framework for Defining Safe Distances between Shipping Lanes and Offshore Wind Farms, provided by the Netherlands (NCSR 3/INF.9).

4.4 General support was expressed with regard to the draft amendments to the GPSR. However, recognizing the need for some minor modifications and clarifications, the Sub-Committee agreed to refer document NCSR 3/4 to the Navigation Working Group for finalization.

Instructions for the Navigation Working Group

4.5 The Sub-Committee instructed the Navigation Working Group, established under agenda item 3, taking into account decisions of, and comments and proposals made in plenary, to finalize the amendments to the *General Provisions on Ships' Routeing*, as set out in the annex to document NCSR 3/4, and submit its report on Thursday, 3 March 2016.

Report of the Navigation Working Group

4.6 On receipt of the relevant part of the working group's report (NCSR 3/WP.4), the Sub-Committee took action as summarized in the ensuing paragraphs.

4.7 The Sub-Committee approved amendments to the *General provisions on ships' routeing* (resolution A.572(14), as amended) on establishing multiple structures at sea, as set out in annex 5, and invited the Committee to adopt them with a view to the Assembly's subsequent confirmation.

4.8 Noting that the work on this output was completed, the Sub-Committee agreed to invite the Committee to delete this agenda item (paragraph 26.5 refers).

5 RECOGNITION OF GALILEO AS A COMPONENT OF THE WWRNS

5.1 The Sub-Committee considered the information provided by Austria et al. (NCSR 3/5) in view of its recognition as a component of the World-Wide Radio Navigation System (WWRNS).

5.2 The Sub-Committee noted additional information provided by the proponents, that it was the intention to present a promulgation letter, as required in paragraph 2.1.3.1 of the annex to resolution A.1046(27), to the Secretary-General before MSC 96, specifying that the Galileo Open Service would be:

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

and that the proponents, on the basis of the above, considered that the service offered was compliant with the requirements set out in resolution A.1046(27).

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

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

5.5 After some discussion, the Sub-Committee agreed that the proponents had provided the necessary information and to advise the Committee to:

- .1 recognize Galileo as a future component of the WWRNS, subject to formal promulgation as required under paragraph 2.1.3.1 of the annex to resolution A.1046(27), and instruct the Secretariat to prepare and issue the associated SN circular; and
- .2 delete this agenda item (paragraph 26.5 refers).

6 ADDITIONAL MODULES TO THE REVISED PERFORMANCE STANDARDS FOR INTEGRATED NAVIGATION SYSTEMS (INS) (RESOLUTION MSC.252(83)) RELATING TO THE HARMONIZATION OF BRIDGE DESIGN AND DISPLAY OF INFORMATION

6.1 The Sub-Committee recalled that MSC 95 had agreed to include, in the 2016-2017 biennial agenda of the NCSR Sub-Committee and the provisional agenda for NCSR 3, an output on "Additional modules to the Revised Performance standards for Integrated Navigation Systems (INS) (resolution MSC.252(83)) relating to the harmonization of bridge design and display of information", with a target completion year of 2017 (MSC 95/22, paragraph 19.12.2).

6.2 The Sub-Committee noted the information provided by IEC (NCSR 3/6, paragraphs 2 and 3) on the preparation of relevant IEC standards supporting the harmonization of bridge design and display of information.

6.3 The Sub-Committee also noted relevant information provided by Australia et al. (NCSR 3/28/1) on work undertaken in 2015 by Australia, the Republic of Korea and some international organizations for the development of guidance on the Standardized (or S) Mode of operation of navigation equipment.

6.4 The Sub-Committee had for its consideration information submitted by China (NCSR 3/6/1) and Norway (NCSR 3/6/2), providing comments on the new modules to the Performance standards for Integrated Navigation Systems (INS) (resolution MSC.252(83)) and proposing to add new modules on harmonization of bridge design and display of information.

6.5 Both proposals received general support, but it was recognized that more information would be required before further consideration could be given to the issue. In this context, some views were expressed that:

- .1 attention should be paid to existing IEC standards when developing solutions;
- .2 there should be a functionality to distinguish navigation safety-related information from ordinary business information; and
- .3 issues related to gateways, two-way communication between navigation and communication equipment, store and forward capability and bridge alert management should also be taken into consideration.

6.6 After some consideration, the Sub-Committee agreed, following the Chairman's recommendation, to establish a Correspondence Group on the Development of additional modules to the INS Performance standards, under the coordination of China¹, to develop the new draft modules to the INS Performance standards, taking into account documents NCSR 3/6, NCSR 3/6/1 and NCSR 3/6/2, as well as any relevant comments provided during the discussions, and submit a report to NCSR 4 for consideration.

6.7 The delegation of Australia was of the view that those interested in developing S-Mode should also participate in the Correspondence Group given the interrelation between the INS modules to be developed and the future developments on S-Mode.

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

9.1 The Sub-Committee recalled that MSC 95 had agreed to include, in the 2016-2017 biennial agenda of the NCSR Sub-Committee and the provisional agenda for NCSR 3, an output on "Guidelines for the harmonized display of navigation information received via communications equipment", with a target completion year of 2017 (MSC 95/22, paragraph 19.12.5).

9.2 The Sub-Committee noted the information provided by IEC (NCSR 3/6, paragraph 4) on the publishing of relevant IEC standards related to the presentation of navigation-related information on shipborne navigational displays.

9.3 The Sub-Committee also noted relevant information provided by Australia et al. (NCSR 3/28/1) on work undertaken by Australia, the Republic of Korea and some international organizations in 2015 for the development of guidance on the Standardized (or S) Mode of operation of navigation equipment.

9.4 The Sub-Committee had for its consideration information submitted by:

- .1 IHO (NCSR 3/9) on developments in IHO related to the contribution of the S-100 framework to the harmonized display of navigation information; and
- .2 Norway (NCSR 3/9/1) providing comments and proposals on the development of *Guidelines for the harmonized display of navigation information received via communications equipment*.

9.5 The information and proposals contained in both documents were supported in general, recognizing the importance of harmonizing the display of information on board ships to reduce human errors and to contribute to the safety of navigation. The need for coordination between related activities conducted by IHO and IMO was highlighted, including the opportunity of activating the IMO/IHO Harmonization group on Data Modelling, which had been previously authorized by MSC 90.

9.6 After some consideration, the Sub-Committee invited Norway to coordinate a joint proposal from interested Member Governments and international organizations to NCSR 4 containing draft *Guidelines for the harmonized display of navigation information received via communications equipment*.

11 ANALYSIS OF DEVELOPMENTS IN MARITIME RADIOCOMMUNICATION SYSTEMS AND TECHNOLOGY

11.1 The Sub-Committee recalled that COMSAR 7 had agreed that no submissions concerning performance standards for any radiocommunication equipment should be accepted and/or considered under this agenda item (COMSAR 7/23, paragraphs 11.5 and 11.6).

Recognition of Iridium mobile satellite system as a GMDSS service provider

11.2 The Sub-Committee considered the report provided by IMSO (NCSR 3/11) on the technical and operational assessment of the application by the United States to recognize and use the Iridium mobile satellite system in the GMDSS, along with the proposal submitted by the United States (NCSR 3/11/1) on a way forward, through a two-step process, for completing the recognition of Iridium as a GMDSS satellite service provider.

11.3 During the ensuing discussions, the following views were expressed:

- .1 the majority of the delegations, expressing appreciation for the work of IMSO and, in particular, the Group of Experts, supported the outcomes of the technical and operational assessment conducted by IMSO in respect to the recognition and use of the Iridium mobile satellite system in the GMDSS, as well as the two-step approach proposed in document NCSR 3/11/1;
- .2 some delegations indicated that compliance with all the criteria set out in resolution A.1001(25), taking into account the guidance contained in MSC.1/Circ.1414, should be demonstrated before recognition and that Iridium should be encouraged to make further progress;
- .3 other delegations were of the opinion that not all the requirements defined in resolution A.1001(25) could be fulfilled without being a system part of the GMDSS;
- .4 resolution A.1001(25) was originally drafted based on a geostationary satellite system and, as such, it should be revised, preferably as part of the GMDSS review, to facilitate the assessment and evaluation of future potential satellite communication providers in the GMDSS;

- .5 interoperability of any additional mobile satellite system with existing shipborne and shore-based equipment should be taken into consideration, bearing in mind any possible consequential financial implications and implementation requirements;
- .6 issues related to frequency allocations and frequency interferences between Iridium and other systems should be addressed prior recognition to ensure long-term sustainability;
- .7 concerns to be resolved on the implementation of the dissemination of MSI messages which needed to be demonstrated before the system could become operational; and
- .8 there were increasing requests from shipowners for the provision of satellite GMDSS services in high latitudes.

11.4 In his summing up, the Chairman indicated that:

- .1 there was broad support for the incorporation of Iridium into the GMDSS as well as for the two-step-approach, whereby views were expressed that Iridium could be incorporated in the GMDSS, upon confirmation that the outstanding issues were resolved;
- .2 concerns were expressed on the amount of outstanding issues and completeness of the list contained in the annex to document NCSR 3/11/1 and on matters possibly not included in resolution A.1001(25), which should be brought to the attention of the Committee;
- .3 in accordance with the proposed two-step approach, Iridium would not be recognized at this stage and, therefore, there would not be a need for a resolution;
- .4 the aim was to agree at this session that Iridium could be incorporated in the GMDSS upon confirmation that the outstanding issues were resolved;
- .5 this agreement would be endorsed by the Committee, providing Iridium a basis to further resolve the outstanding issues; and
- .6 Iridium would, therefore, be required to test all elements of the system on a trial basis to prove operational capability and compliance with the outstanding issues.

11.5 The delegation of China made a statement as set out in annex 14.

11.6 After an in-depth discussion, the Sub-Committee agreed that Iridium could be incorporated into the GMDSS subject to compliance with outstanding issues. The Sub-Committee invited the Committee to endorse this view, with the understanding that it, based on the evaluation reports from IMSO, would advise the Committee on final recognition, when the issues identified have been complied with (paragraphs 11.12 to 11.14 refers).

11.7 In this context, the Sub-Committee further agreed to instruct the Communications Working Group, using the information contained in the annex to document NCSR 3/11/1, to prepare a comprehensive list of conditions identified in accordance with resolution A.1001(25)

and MSC.1/Circ.1414, which needed to be fulfilled before Iridium could be recommended for final recognition. It was agreed that if the working group could not agree on the inclusion of certain issues, it should include these issues in square brackets for a final decision by the Sub-Committee (paragraph 11.14 refers).

11.8 Furthermore, the Sub-Committee agreed that there might be a need to review and revise resolution A.1001(25). In this context, the Sub-Committee invited interested Member Governments to submit a relevant proposal for a new output to the Committee.

Establishment of the Communications Working Group

11.9 The Sub-Committee established the Communications Working Group under the chairmanship of Mr. A. Schwarz (Germany) and instructed it, taking into account decisions of, and comments and proposals made in plenary, to prepare a comprehensive list of conditions which need to be fulfilled before Iridium could be recommended for final recognition, using the annex to document NCSR 3/11/1 as the base document to work from and taking into account document NCSR 3/11, and submit its report on Thursday, 3 March 2016.

Report of the Communications Working Group

11.10 Having received and considered the working group's report (NCSR 3/WP.5), the Sub-Committee approved it in general and, in particular, took action as summarized in the ensuing paragraphs.

11.11 The Sub-Committee noted that Malta had also attended the Communications Working Group.

11.12 The Sub-Committee further noted the view of the observer of IHO, referring to document NCSR 3/WP.5, paragraphs 3.5.4 and 3.6.4.2, that it was not the ability, but the capability to monitor broadcast of MSI which should be part of the implementation of MSI broadcast services. This was to ensure the integrity of MSI being broadcast and especially important to a highly automated system.

11.13 The Sub-Committee noted:

- .1 the issues, as set out in document NCSR 3/WP.5, paragraphs 3.4, 3.5 and 3.6, where the group had not been able to reach a consensus;
- .2 the views of the group on the secondary status of the space-to-Earth link of Iridium, as set out in document NCSR 3/WP.5, paragraph 3.7, on which the group had not been able to reach a consensus; and
- .3 that paragraphs 4.1.4, 4.1.11, 4.1.12, 5.1.5, 5.5.7 and 8.3 of document NCSR 3/11 described findings which were not contained in annex 2 to document NCSR 3/WP.5, and which still might need further consideration in order to support a future revision of resolution A.1001(25), and that the Group did not have time to consider this list.

11.14 The Sub-Committee endorsed the comprehensive list of conditions, as set out in document NCSR 3/WP.5, annex 1, which need to be fulfilled before Iridium could be recommended for recognition (paragraph 11.6 refers).

11.15 In this context, the Sub-Committee noted the view of China, that the list was not comprehensive enough since a lot of concerns expressed by several Member Governments had not been included in the list.

11.16 The Sub-Committee further noted the view expressed by Brazil, supporting the observation by China in general and re-stating that compatibility of any additional satellite provider in the GMDSS with existing equipment had to be formally assured.

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

12.1 The Sub-Committee noted that MSC 95 agreed to include, in the 2016-2017 biennial agenda of the NCSR Sub-Committee and the provisional agenda for NCSR 3, an output on "Performance standards for ship-borne GMDSS equipment to accommodate additional providers of GMDSS satellite services", with a target completion year of 2016 (MSC 95/22, paragraph 19.14).

12.2 The Sub-Committee considered the proposal from the United States (NCSR 3/12), providing draft performance standards for shipborne GMDSS equipment to accommodate additional providers of GMDSS satellite services.

12.3 During the ensuing discussions, the following views were expressed indicating general support to the proposal, and that:

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

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

Instructions for the Communications Working Group

12.5 The Sub-Committee instructed the Communications Working Group, established under agenda item 11, taking into account decisions of, and comments and proposals made in plenary, to consider document NCSR 3/12 containing draft performance standards for shipborne GMDSS equipment to accommodate additional providers of GMDSS satellite services and, taking into account the target completion year of 2016, advise, as appropriate, and submit its report on Thursday, 3 March 2016.

Report of the Communications Working Group

12.6 On receipt of the relevant part of the working group's report (NCSR 3/WP.5), the Sub-Committee took action as summarized in the ensuing paragraphs.

12.7 The Sub-Committee endorsed the view of the group to invite the Committee to clarify the scope of application of these performance standards. In this context, the Chairman invited interested Member Governments and international organizations to submit views on this matter to the Committee, to enable it to take a well-informed decision.

12.8 The Sub-Committee noted the progress of the consideration of these performance standards and invited interested Member Governments and international organizations to submit proposals for consideration at the next session. In this context, the information by the United States was noted that it coordinated a group which would work on these performance standards intersessionally, and that it welcomed members who wanted to participate in this work.

Extension of the target completion year for this item

12.9 The Sub-Committee agreed to invite the Committee to extend the target completion year for this output to 2017.

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

13.1 The Sub-Committee recalled that MSC 92 had agreed to include, in the post-biennial agenda of the Committee, an output on "Interconnection of NAVTEX and Inmarsat SafetyNET receivers and their display on Integrated Navigation Display Systems" with one session needed to complete the item, assigning the NCSR Sub-Committee as the coordinating organ (MSC 92/26, paragraph 23.13). The Sub-Committee noted that the output had been included in the provisional agenda for NCSR 3, with a target completion year of 2016.

13.2 The Sub-Committee noted the relevant information provided by IEC (NCSR 3/6, paragraphs 7 and 9) on the publishing of relevant IEC standards.

13.3 The Sub-Committee considered the information provided by the United States (NCSR 3/13) proposing amendments to the *Revised performance standards for narrow-band direct-printing telegraph equipment for the reception of navigational and meteorological warnings and urgent information to ships* (resolution MSC.148(77)), the *Revised performance standards for enhanced group call (EGC) equipment* (resolution MSC.306(87)) and the *Revised performance standards for integrated navigation systems (INS)* (resolution MSC.252(83)), related to interconnection, bridge alert management and display of NAVTEX and SafetyNET warnings on navigation display systems.

13.4 A view was expressed that the intention of the output approved by MSC 92 was to allow Inmarsat C SafetyNET Maritime Safety Information messages to be presented on an integrated navigation display system as an option (i.e. non-mandatory).

13.5 The Chairman indicated that it would be appropriate to wait for the outcome of items 6 and 9 before concluding or finalizing this item.

13.6 Consequently, the Sub-Committee invited the United States and interested Member Governments and/or organizations, if required, to submit revised proposals, as appropriate, to NCSR 4.

13.7 Following a request by the United States, the Sub-Committee instructed the Joint IMO/ITU Experts Group to consider document NCSR 3/13 and advise the Sub-Committee as appropriate (paragraph 14.20 refers).

Extension of the target completion year for this item

13.8 The Sub-Committee agreed to invite the Committee to extend the target completion year for this output to 2017.

14 COMPLETION OF THE DETAILED REVIEW OF THE GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)**Report of the twenty-second session of the ICAO/IMO Joint Working Group**

14.1 The Sub-Committee noted that the ICAO/IMO Joint Working Group on Search and Rescue had considered issues related to the Review and modernization of the GMDSS (NCSR 3/21, paragraphs 2.18 to 2.20, and section 7.4 of the annex) and that the relevant outcomes had been taken into consideration during the meeting of the Joint IMO/ITU Experts Group, held in October 2015 (see paragraph 14.2).

Report of the eleventh meeting of the Joint IMO/ITU Experts Group

14.2 The Sub-Committee considered document NCSR 3/17 (Secretariat) providing the report of the eleventh meeting of the Joint IMO/ITU Experts Group on Maritime radiocommunication matters, which took place from 5 to 9 October 2015, under the Chairmanship of Mr. K. Fisher (United Kingdom).

14.3 The Sub-Committee noted that the detailed review of the GMDSS was not proposing new carriage or retrofit requirements at this stage (NCSR 3/17, paragraph 3.2).

14.4 The Sub-Committee further noted the view of the Experts Group provided in paragraph 3.7 of its report, that the report of the Experts Group meeting would require consideration by the SAR Working Group, as well as by the Communications Working Group, and noted that for this reason the experts of the Communications and SAR Working Groups were present in plenary whilst considering this agenda item.

Proposed revision of SOLAS chapter IV

14.5 The Sub-Committee considered the view of the Experts Group that it was preferable to work towards an entry-into-force date of 2020 of the revision of SOLAS chapter IV (NCSR 3/17, paragraphs 3.4 to 3.6). In this context, the Sub-Committee noted the relevant information provided by the Chairman that:

- .1 MSC 95 had considered a proposal by the United States to amend SOLAS chapter IV, to include the deployment of the Cospas-Sarsat MEOSAR system and the issuance of a second generation 406 MHz Distress Beacon and that the Committee had agreed to refer this matter to the discussions under this agenda item;
- .2 a liaison letter from Cospas-Sarsat in relation to the revision of SOLAS chapter IV had been received (NCSR 3/14/3) and the Sub-Committee agreed to take Cospas-Sarsat's information into account in the further consideration of the revision of SOLAS chapter IV;

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- .3 the current outputs, namely 5.2.5.2 on the Completion of the detailed review of the GMDSS and 5.2.5.3 on the Draft Modernization Plan of the GMDSS, did not include the development of amendments to SOLAS chapter IV and that a new output for this matter would be required;
 - .4 in relation to MSC.1/Circ.1481 on *Guidance on entry into force of amendments to the 1974 SOLAS Convention and related mandatory instruments*, in particular, amendments adopted after 1 July 2018 would enter into force not earlier than 1 January 2024, unless adopted under conditions of exceptional circumstance, as described in paragraph 4.1 of the annex to the circular;
 - .5 in accordance with MSC.1/Circ.1500 on *Guidance on drafting of amendments to the 1974 SOLAS Convention and related mandatory instruments*, when submitting draft amendments to the SOLAS Convention for the Committee's approval, all necessary related and consequential amendments to other existing instruments, including non-mandatory instruments, in particular to the forms of certificates and records of equipment required in the instrument being amended, should be examined and included as part of the proposed amendment(s);
 - .6 consequently, to work towards an entry-into-force date of 2020 would not only require completing the amendments to the SOLAS Convention, but also the consideration of any necessary consequential amendments to other instruments by NCSR 4 in 2017, so as to be approved by MSC 98 and circulated for adoption by MSC 99 in 2018; and
 - .7 a proposal for a new output on a revision of SOLAS chapter IV to accommodate the introduction of Iridium had been submitted to MSC 96 (MSC 96/23/10). In this context, it was noted that when this output would be approved by the Committee, NCSR 4 might be in a position to consider and finalize amendments to SOLAS chapter IV, at that stage only related to the introduction of Iridium, with an entry-into-force date of 2020.

14.6 After consideration, the Sub-Committee agreed that the amendments to the SOLAS Convention and related instruments be addressed after completion of the Modernization Plan of the GMDSS and aim for an entry-into-force date of 2024. In this context, it was noted that, if MSC 96 would approve a new output on a revision of SOLAS chapter IV to accommodate the introduction of Iridium, this would have priority as a separate agenda item at NCSR 4.

14.7 Finally, the Sub-Committee agreed that the work done by the Correspondence Group on the Review of the GMDSS and the IMO/ITU Experts Group, in relation to the development of the draft revision of SOLAS chapter IV, as set out in document NCSR 3/17, appendix 3 of the annex, was very valuable. The Sub-Committee expressed its appreciation for the hard work done, in particular, by the Coordinator of the Correspondence Group, Mr. B. Markle and the Chairman of the Experts Group, Mr. K. Fisher.

The next meeting of the Joint IMO/ITU Experts Group

14.8 Having noted that MSC 95 had approved the intersessional meeting of the Joint IMO/ITU Experts Group to be held in 2016 (MSC 95/22, paragraph 19.42), and the Council's endorsement (C 114/D, paragraph 9.2), the Sub-Committee endorsed the holding of the twelfth meeting of the Experts Group, at IMO Headquarters in London, from 11 to 15 July 2016 (NCSR 3/17, paragraph 3.11), and instructed the Communications Working Group to prepare the draft terms of reference for that meeting.

Report of the Correspondence Group on the Review of the GMDSS

14.9 The Sub-Committee noted that the comments and recommendations of the Experts Group had been forwarded to the Correspondence Group on the Review of the GMDSS (NCSR 3/17, paragraph 3.3).

Outcome of the Detailed Review of the GMDSS

14.10 The Sub-Committee considered the report of the Correspondence Group on the review of the GMDSS, provided by the United States (NCSR 3/14) containing the draft outcome of the Detailed Review of the GMDSS, together with documents NCSR 3/14/1 and NCSR 3/14/2 (United States).

14.11 During the ensuing considerations, the following views were, inter alia, expressed:

- .1 certain issues presented in the draft outcome of the Detailed Review of the GMDSS, in particular those related to integration and presentation of information received via communication equipment, should be discussed also under agenda items 6 and 9 in respect to e-navigation;
- .2 the financial implications of having additional satellite systems in the GMDSS should be taken into consideration, in particular, with respect to the broadcasting of Maritime Safety Information (with possible inclusion in resolution A.707(17)), the reliability and secure use of public switched telephone networks, together with recommendations set out in resolution A.856(20), and the requirement for NAVAREA and METAREA coordinators to monitor correct broadcasting of information;
- .3 automated frequency scanning in the HF frequency band could be a solution to address distress communications; however, it should be introduced on a non-mandatory basis and the development of technical standards should be considered to allow for effective implementation;
- .4 further consideration would be required with respect to the possible use of Cospas-Sarsat for the distribution of digital distress alerts under the modernized GMDSS, addressing, inter alia, the issues of one-way communication, priority of distress alerts, the burden of adding an additional service provider, potential carriage requirements and current arrangements for independent national implementation;
- .5 the GMDSS modernization plan could serve as a framework for the development of e-navigation, which could address issues that would not be considered within the GMDSS review, such as shore-to-shore communications;

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- .6 the design of the GMDSS, as developed in the general review, needs to be simplified so that it remains straightforward, logical and clear to users;
 - .7 GMDSS model courses should also be added to the list of IMO instruments to be revised, and this work should be referred to the HTW Sub-Committee;
 - .8 in drafting related amendments to SOLAS, references should be made to the texts and terminology already developed by IMO or ITU; and
 - .9 further consideration should be given to the need to define "Security-related communications" and "other communications".

14.12 Having noted the outline of the Modernization Plan, prepared by the Correspondence Group, the Sub-Committee agreed that issues highlighted in the Correspondence Group's report on the outcome of the Detailed Review of the GMDSS under the paragraph headings "Implications for the Modernization Plan" should be further considered during the development of the GMDSS Modernization Plan, taking into account the views expressed in paragraph 14.11 above and the issues presented in documents NCSR 3/14/1 and NCSR 3/14/2. It was further agreed that the Modernization Plan should contain a clear timeline and deliverables.

14.13 In relation to document NCSR 3/14/1, the Sub-Committee invited Cospas-Sarsat to conduct an analysis of the proposal for distribution of GMDSS digital distress alerts in addition to the current 406 MHz beacon alerts, and present appropriate findings and recommendations to the Sub-Committee.

14.14 Having noted annex 2 of document NCSR 3/14, containing the list of items not to be included in the GMDSS Modernization programme, the Sub-Committee noted the view of two observer organizations that certain items in that list, in their view, should be further discussed during the development of the Modernization Plan. The Sub-Committee further noted the information provided by the coordinator of the Correspondence Group on the Review of the GMDSS, that action had already been taken on some of the issues included in annex 2 and, therefore, did not have to be included in the GMDSS Modernization program.

14.15 Finally, the Sub-Committee endorsed the draft outcome of the Detailed Review of the GMDSS, as set out in annex 7, and invited the Committee, in accordance with the revised Plan of Work (NCSR 1/28, annex 11), to approve the outcome of the Detailed Review of the GMDSS and the continuation of the project in developing the Modernization Plan.

Establishment of a Correspondence Group on the Modernization of the GMDSS

14.16 In the anticipation that the Committee would approve the continuation of the project, the Sub-Committee established a Correspondence Group on the Modernization of the GMDSS, under the coordination of the United States³, and instructed the Communications Working Group to prepare draft terms of reference for it.

³

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Instructions for the Communications Working Group

14.17 The Sub-Committee instructed the Communications Working Group, established under agenda item 11, taking into account decisions of, and comments and proposals made in plenary, to:

- .1 prepare draft terms of reference for the twelfth meeting of the Joint IMO/ITU Experts Group, scheduled to take place from 11 to 15 July 2016; and
- .2 prepare draft terms of reference for the Correspondence Group on the Modernization of GMDSS for the intersessional work to be done between NCSR 3 and NCSR 4, as well as reporting to the twelfth meeting of the joint IMO/ITU Experts Group,

and submit its report on Thursday, 3 March 2016.

Report of the Communications Working Group

14.18 On receipt of the relevant part of the working group's report (NCSR 3/WP.5), the Sub-Committee took action as summarized in the ensuing paragraphs.

14.19 The Sub-Committee approved the terms of reference of the Correspondence Group on the modernization of the GMDSS, as set out in document NCSR 3/WP.5, annex 3.

14.20 The Sub-Committee further approved the terms of reference of the twelfth meeting of the Joint IMO/ITU Experts Group, as set out in document NCSR 3/WP.5, annex 4, with the understanding that the Experts Group was also instructed to consider document NCSR 3/13 and advise the Sub-Committee as appropriate (paragraph 13.7 refers).

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

15.1 The Sub-Committee noted that, following the request of NCSR 2, MSC 95 had merged the Sub-Committee's two outputs, "Further development of the GMDSS Master Plan on shore-based facilities" and "Guidelines on MSI provisions" and renamed it as "Updating of the GMDSS Master Plan and guidelines on MSI provisions" (NCSR 2/23, paragraph 11.3 and MSC 95 /22, paragraph 19.16).

Amendments to the GMDSS Master Plan

15.2 The Sub-Committee noted the oral information provided by the Secretariat on amendments to the GMDSS Master Plan, as disseminated through GMDSS.1/Circ.18 on 1 September 2015, and encouraged Administrations to check their national data, contained in GMDSS.1/Circ.18, for accuracy and to provide the Secretariat with any necessary amendments as soon as possible.

Proposed development of new GISIS modules on GMDSS

15.3 The Sub-Committee noted that the proposed development of a new GISIS module on the GMDSS Master Plan would be dealt with under agenda item 28 (paragraphs 28.7 and 28.8 refers).

Annual report of the IMO NAVTEX Coordinating Panel

15.4 The Sub-Committee noted with appreciation the information provided by the Chairman of the IMO NAVTEX Coordinating Panel, Mr. W. Van Den Bergh (United Kingdom) (NCSR 3/15/3), highlighting a summary of the current issues being addressed by the IMO NAVTEX Coordinating Panel and its actions/activities since NCSR 2. In introducing the document, the Chairman of the IMO NAVTEX Coordinating Panel provided also the following additional information:

- .1 Georgia had confirmed that, as of 3 January 2016, the NAVTEX station in Poti was fully operational on 490 kHz only;
- .2 the Panel had issued B1 characters to Colombia for trial use on 518 and 490 kHz from the Caribbean coast station, after service areas with neighbouring NAVTEX Member Governments were agreed;
- .3 Colombia was in discussions with Ecuador regarding service areas on the Pacific coast and, once agreed, the Panel would issue B1 Characters;
- .4 the Panel was also in discussion with Ecuador regarding a 518 and 490 kHz station in Ecuador;
- .5 India had informed the Panel that trial transmissions had commenced from their new NAVTEX stations;
- .6 Seychelles had advised the Panel that their NAVTEX antenna suffered a lightning strike and, as a result, the station was no longer operational; and
- .7 Chile had confirmed that they were now operational on 490 kHz using the Spanish language service, thus leaving 518 kHz for English language service only.

15.5 The delegation of the Russian Federation provided information on its intention to establish a NAVTEX station on 518 kHz in the area of Taganrog port to ensure safety of navigation in the Sea of Azov, but that it had been advised by the NAVAREA III and METAREA III Coordinators that transmission in that area and on that frequency would not be appropriate under the current arrangements for the area concerned. The Russian Federation would continue to monitor transmission of NAVTEX information in the Sea of Azov to validate the adequacy of the information transmitted with a view to defining its future approach on this issue.

Outcome of the seventh session of the IHO World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC)

15.6 The Sub-Committee noted with appreciation the information provided by the Chairman of the IHO WWNWS Sub-Committee, Mr. P. Doherty (United States) (NCSR 3/15/2) on the matters discussed and decisions taken at the seventh session of the IHO WWNWS Sub-Committee which was held from 24 to 27 August 2015.

15.7 Following some discussion, the Sub-Committee:

- .1 encouraged the attendance of Member Governments and observers at WWNWS-SC meetings;
- .2 reminded delegations to take into account the impact of e-navigation on the provision of MSI;

- .3 highlighted the importance of the use of the Joint Manual on MSI to ensure correct terminology and formats were used in MSI messages; and
- .4 encouraged closer engagement of the National MSI Coordinators of Member Governments with the relevant NAVAREA Coordinator(s).

Proposed amendments to the International SafetyNET Manual and NAVTEX Manual

15.8 The Sub-Committee, noting that the proposals submitted by Chairman of the IHO WNWWS Sub-Committee (NCSR 3/15 and NCSR 3/15/1) on amendments to the International SafetyNET Manual and NAVTEX Manual did not require a particular decision in plenary, referred it to the Drafting Group for finalization.

Establishment of the Drafting Group on MSI guidance documentation

15.9 The Sub-Committee established the Drafting Group on MSI guidance documentation under the chairmanship of Mr. P. Doherty (United States) and instructed it, taking into account decisions, comments and proposals made in plenary, to finalize the draft revision of:

- .1 the International SafetyNET Manual, as given in NCSR 3/15, annex; and
- .2 the NAVTEX Manual, as given in NCSR 3/15/1, annex,

and submit its report on Thursday, 3 March 2016.

Report of the Drafting Group

15.10 Having received and considered the Drafting Group's report (NCSR 3/WP.7), the Sub-Committee approved it in general and, in particular, took action as summarized in the ensuing paragraphs.

15.11 The Sub-Committee endorsed the draft amendments to the International SafetyNet Manual as set out in annex 8, and instructed the Secretariat to prepare the associated draft MSC circular and to submit it, as an annex to the report of the Sub-Committee, for consideration and approval by the Committee.

15.12 The Sub-Committee endorsed the draft amendments to the NAVTEX Manual as set out in annex 9, and instructed the Secretariat to prepare the associated draft MSC circular and to submit it, as an annex to the report of the Sub-Committee, for consideration and approval by the Committee.

28 ANY OTHER BUSINESS

Report on monitoring of ECDIS issues by the IHO

28.1 The Sub-Committee recalled that IHO, at the last session, had reported the outcome 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 V/19.2.11. The Sub-Committee further recalled that resolving the known issues with ECDIS operating anomalies had been progressing normally with the active involvement of all key stakeholders, and that no major new issue had been identified since NAV 58.

28.2 The Sub-Committee noted with appreciation the information provided by IHO (NCSR 3/28/Rev.1), reporting the outcome of the continuing monitoring by the IHO of ECDIS issues related to the implementation of the carriage requirements in SOLAS regulations V/19.2.10 and V/19.2.11. The Sub-Committee noted, in particular, that:

- .1 the ENC/ECDIS Data Presentation and Performance Check results had indicated a continuing improvement in the updating of ECDIS software and no new issue had been identified; and
- .2 the ENC/ECDIS Data Presentation and Performance Check for Ships was designed to alert mariners to the possibility that their ECDIS equipment software might require upgrading, but that it was not suitable to be used for checking the implementation of ECDIS carriage requirements.

28.3 Having noted additional oral information provided by IHO regarding the twelve-month period to keep the previous editions of S-52 and S-64 valid until September 2016, in accordance with the schedule proposed at NCSR 1, IHO proposed to extend the period until 31 August 2017 to enable shipowners and operators to update existing systems in accordance with the guidance concerning the maintenance of ECDIS software contained in MSC.1/Circ.1503.

28.4 The Sub-Committee agreed with the proposal for the extension of the aforementioned period until 31 August 2017.

28.5 In considering the information provided by IHO, views were expressed that:

- .1 the introduction of an annual performance check for ECDIS could result on issues being unaddressed for periods of up to twelve months and, therefore, consideration should be given to possible automated processes within ECDIS in order to identify issues as they occurred; and
- .2 the apparent and inappropriate use of the ENC/ECDIS Data Presentation and Performance Check by port State control should be brought to the Committee and the III Sub-Committee.

28.6 Following consideration, the Sub-Committee invited the Committee to note the aforementioned information and views, and to forward it to the III Sub-Committee so as to be properly addressed to all Port State Control MoUs.