



SUB-COMMITTEE ON
RADIOCOMMUNICATIONS AND
SEARCH AND RESCUE
12th session
Agenda item 15

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REPORT TO THE MARITIME SAFETY COMMITTEE

Table of contents

Section	Page No.
1 GENERAL	4
2 DECISIONS OF OTHER IMO BODIES	7
3 GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)	9
4 ITU MARITIME RADIOCOMMUNICATION MATTERS	15
5 SATELLITE SERVICES (INMARSAT AND COSPAS-SARSAT)	22
6 MATTERS CONCERNING SEARCH AND RESCUE, INCLUDING THOSE RELATED TO THE 1979 SAR CONFERENCE AND IMPLEMENTATION OF THE GMDSS	24
7 DEVELOPMENTS IN MARITIME RADIOCOMMUNICATION SYSTEMS AND TECHNOLOGY	39
8 REVISION OF THE IAMSAR MANUAL	42
9 REPLACEMENTS FOR USE OF NBDP (RADIO TELEX) FOR MARITIME DISTRESS AND SAFETY COMMUNICATIONS IN MARITIME MF/HF BANDS	43
10 GUIDELINES FOR UNIFORM OPERATING LIMITATIONS OF HIGH-SPEED CRAFT	47
11 DEVELOPMENT OF AN E-NAVIGATION STRATEGY	48
12 WORK PROGRAMME AND AGENDA FOR COMSAR 13	55

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13	ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR 2009	57
14	ANY OTHER BUSINESS	57
15	ACTION REQUESTED OF THE COMMITTEE	60

LIST OF ANNEXES

ANNEX 1	DRAFT MSC CIRCULAR – AMENDMENTS TO RESOLUTION A.705(17) – PROMULGATION OF MARITIME SAFETY INFORMATION	
ANNEX 2	DRAFT MSC CIRCULAR – AMENDMENTS TO RESOLUTION A.706(17) – WORLD-WIDE NAVIGATIONAL WARNING SERVICE	
ANNEX 3	LIAISON STATEMENT TO ITU-R WP 5B – RECOMMENDATION ITU-R M.493-12 ON DIGITAL SELECTIVE CALLING SYSTEM FOR USE IN THE MARITIME MOBILE SERVICE	
ANNEX 4	TERMS OF REFERENCE FOR THE JOINT IMO/ITU EXPERTS GROUP ON MARITIME RADIOCOMMUNICATION MATTERS	
ANNEX 5	LIAISON STATEMENT TO IHO AND ISO – SHIP AND PORT SECURITY REQUIREMENTS FOR THE ITU WORLD RADIOCOMMUNICATION CONFERENCE 2011	
ANNEX 6	GENERAL PRINCIPLES AND A STRUCTURED AMENDMENT PROCESS FOR THE IAMSAR MANUAL	
ANNEX 7	LIST OF QUESTIONS ON SAR-RELATED LRIT ISSUES	
ANNEX 8	LIST OF IMO DOCUMENTS AND PUBLICATIONS WHICH SHOULD BE HELD BY A MARITIME RESCUE COORDINATION CENTRE (MRCC)	
ANNEX 9	TERMS OF REFERENCE AND PROVISIONAL AGENDA FOR THE FIFTEENTH SESSION OF THE ICAO/IMO JOINT WORKING GROUP	
ANNEX 10	LIAISON STATEMENT TO ITU, CIRM, IEC AND IALA – AIS SAFETY RELATED BROADCAST MESSAGES USED FOR DISTRESS PURPOSES	
ANNEX 11	DRAFT MSC CIRCULAR – ADOPTION OF AMENDMENTS TO THE INTERNATIONAL AERONAUTICAL AND MARITIME SEARCH AND RESCUE (IAMSAR) MANUAL	
ANNEX 12	TABLE OF EXISTING USER NEEDS RELATING TO SOLAS REGULATION IV/4	
ANNEX 13	TABLE OF RELATED EQUIPMENT, PERFORMANCE STANDARDS AND TEST STANDARDS	
ANNEX 14	LIAISON STATEMENT TO ITU, IEC, IALA AND CIRM – AIS SEARCH AND RESCUE TRANSMITTER (AIS-SART)	

- ANNEX 15 PROPOSED REVISED WORK PROGRAMME AND PROVISIONAL
AGENDA FOR COMSAR 13
- ANNEX 16 STATEMENT OF THE DELEGATION OF TURKEY
- ANNEX 17 STATEMENT OF THE DELEGATION OF GREECE

1 GENERAL

1.1 The Sub-Committee on Radiocommunications and Search and Rescue held its twelfth session from 7 to 11 April 2008 at the Royal Horticultural Halls and Conference Centre, London under the Chairmanship of Mr. C. Salgado (Chile). The Vice-Chairman, Mr. A. Olopoenia (Nigeria), was also present.

1.2 The session was attended by delegations from the following countries:

ALGERIA	LATVIA
ANGOLA	LIBERIA
ARGENTINA	MALAYSIA
AUSTRALIA	MALTA
BAHAMAS	MARSHALL ISLANDS
BAHRAIN	MEXICO
BANGLADESH	NETHERLANDS
BELGIUM	NEW ZEALAND
BOLIVIA	NIGERIA
BRAZIL	NORWAY
BULGARIA	PAKISTAN
CANADA	PANAMA
CHILE	PAPUA NEW GUINEA
CHINA	PERU
COLOMBIA	PHILIPPINES
CÔTE D'IVOIRE	POLAND
CROATIA	PORTUGAL
CUBA	REPUBLIC OF KOREA
CYPRUS	ROMANIA
DENMARK	RUSSIAN FEDERATION
DOMINICAN REPUBLIC	SAUDI ARABIA
ECUADOR	SINGAPORE
EGYPT	SLOVENIA
ESTONIA	SOUTH AFRICA
FINLAND	SPAIN
FRANCE	SWEDEN
GERMANY	SWITZERLAND
GHANA	SYRIAN ARAB REPUBLIC
GREECE	TURKEY
ICELAND	TUVALU
INDONESIA	UKRAINE
IRAN (ISLAMIC REPUBLIC OF)	UNITED KINGDOM
IRELAND	UNITED STATES
ITALY	URUGUAY
JAPAN	VANUATU
KENYA	VENEZUELA
KUWAIT	

and by the following Associate Member of IMO:

HONG KONG, China

1.3 The following United Nations specialized agencies were also represented:

INTERNATIONAL TELECOMMUNICATION UNION (ITU)
WORLD METEOROLOGICAL ORGANIZATION (WMO)
FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO)

1.4 The session was also attended by observers from intergovernmental and non-governmental organizations:

INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO)
EUROPEAN COMMISSION (EC)
MARITIME ORGANISATION FOR WEST AND CENTRAL AFRICA (MOWCA)
LEAGUE OF ARAB STATES
INTERNATIONAL COSPAS-SARSAT PROGRAMME AGREEMENT
(COSPAS-SARSAT)
INTERNATIONAL MOBILE SATELLITE ORGANIZATION (IMSO)
EUROPEAN CONFERENCE OF POSTAL AND TELECOMMUNICATIONS
ADMINISTRATIONS (CEPT)
INTERNATIONAL CHAMBER OF SHIPPING (ICS)
INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)
INTERNATIONAL TRANSPORT WORKERS' FEDERATION (ITF)
INTERNATIONAL ASSOCIATION OF MARINE AIDS TO NAVIGATION
AND LIGHTHOUSE AUTHORITIES (IALA)
INTERNATIONAL RADIO-MARITIME COMMITTEE (CIRM)
INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)
OIL COMPANIES INTERNATIONAL MARINE FORUM (OCIMF)
INTERNATIONAL ASSOCIATION OF DRILLING CONTRACTORS (IADC)
INTERNATIONAL ASSOCIATION OF INSTITUTES OF NAVIGATION (IAIN)
INTERNATIONAL FEDERATION OF SHIPMASTERS' ASSOCIATIONS (IFSMA)
INTERNATIONAL ASSOCIATION OF INDEPENDENT TANKER OWNERS
(INTERTANKO)
INTERNATIONAL MARITIME RESCUE FEDERATION (IMRF)
INTERNATIONAL SAILING FEDERATION (ISAF)
THE INTERNATIONAL MARINE CONTRACTORS ASSOCIATION (IMCA)

Secretary-General's opening address

1.5 In welcoming participants, the Secretary-General observed that holding this session of the Sub-Committee, again away from the IMO Headquarters building was the final challenge to be faced during the extended refurbishment period. He emphasized that when the Sub-Committee met next, it would be at a fully modernized and state-of-the-art Headquarters building.

The Secretary-General drew the Sub-Committee's attention to two milestones in IMO's history, which were celebrated on the 6th and 17th of March 2008, which had marked, respectively, the 60th anniversary of the adoption of the Convention constituting IMO, in 1948, and its subsequent entry into force in 1958. With these milestones in mind, the Council had decided, last June, that the theme for this year's World Maritime Day should be "**IMO: 60 years in the**

service of shipping” and pointed out that this theme would give the opportunity to pay due tribute to the sterling work delivered by the Organization since its inception as a specialized agency of the United Nations; as an institution serving the common public good; and as the regulator and partner of an industry.

The Secretary-General then referred to Amver, which was closely related to the work of the Sub-Committee and had also celebrated a significant milestone in its history, with this year marking its 50th anniversary. The global ship reporting system, established and run by the United States Coast Guard and used voluntarily to support maritime search and rescue operations, had, thanks to the participation of mariners rescued countless lives, safeguarded property and protected the environment. He expressed deep gratitude and appreciation, as well as heartfelt thanks, to the Coast Guard and wished the Amver staff continued success in the future as they celebrated their Golden Jubilee.

The Secretary-General recalled that the inaugural **IMO Award for Exceptional Bravery at Sea** had been presented last year on the opening day of the twenty-fifth session of the Assembly. The scheme had been established to provide international recognition for those who, at the risk of losing their own life, perform acts of exceptional bravery, displaying outstanding courage in attempting to save life at sea or to prevent or mitigate damage to the marine environment. On this first occasion, the Award had been bestowed on Second Officer Mustafa Topiwala of the **Searose G** and Captain Zvonimir Ostric, who had risked their lives to save others in a dramatic rescue operation in gale-force winds in the eastern Mediterranean. It had been a special pleasure for him to bestow the inaugural Award on two fellow seafarers, whose nomination joined those of many others whom IMO had also recognized and honoured, in other appropriate ways, during a splendid ceremony in London. He therefore looked forward to a similar response in respect of the nominations for this year's Award, the deadline for which was 15 April 2008.

Turning to issues before the Sub-Committee this week the Secretary-General mentioned that draft **amendments to resolution A.705(17)** on the Promulgation of Maritime Safety Information, **and resolution A.706(17), as amended**, on the IMO/IHO World-Wide Navigational Warning Service had to be considered which had been developed in close co-operation with IHO. He also reminded the Sub-Committee that the availability of an adequate radio spectrum for maritime purposes was of great significance to shipping, which made the consideration of **the outcome of the ITU World Radiocommunication Conference, 2007** all the more important. He mentioned that in this regard WRC-07 had aligned the provisions of chapter VII of the Radio Regulations (on Distress and safety communications) with the official IMO position, thanks, to a great extent, to the excellent preparatory work of the Joint IMO/ITU Experts Group.

In relation to search and rescue, the Secretary-General informed about the considerable advances on **the establishment of subregional Maritime Rescue Coordination Centres and Maritime Rescue Sub-centres in African countries bordering the Atlantic and Indian Oceans**. Excellent progress had been made in all five regions. Five countries of the West African region had concluded a Multilateral Agreement on the establishment of a subregional MRCC in Monrovia, Liberia, with Sub-centres in Côte d'Ivoire, Ghana, Guinea and Sierra Leone. With respect to MRCC Lagos, work has now been completed and he looked forward to commissioning it, in late May 2008, as a subregional MRCC covering an extensive part of the sea adjacent to western and central Africa, to coincide with the signing of the corresponding Multilateral Agreement. He also looked forward to commissioning, later in the year, two sub-centres subordinate to the Mombasa Centre, one in Dar Es Salaam, Tanzania and the other in Mahe, Seychelles.

He emphasized that the establishment and commissioning of the subregional MRCCs and sub-centres in Africa, as recommended by the 2000 Florence Conference on maritime SAR and GMDSS, had, to a great extent, been made possible thanks to financial support provided by the **International SAR Fund**. He further emphasized that unfortunately these resources were far from being sufficient to support the installation of equipment and the training of personnel in the remaining centres envisaged. He, therefore, once again, appealed to Member Governments and the industry to make financial or in-kind contributions towards providing equipment and staff training for those remaining MRCCs and sub-centres in the African region.

On general issues, the Secretary-General stressed that there should be no complacency about security during IMO meetings, not only at this temporarily venue but also on return to the IMO Headquarters building, in spite of the upgraded security measures which had been installed there, and therefore appealed to all delegates to abide by the security rules in place.

With regard to the implementation of the Voluntary IMO Member State Audit Scheme, he encouraged Member States to continue the commendable efforts already made, so that the benefits could be expanded to the Organization's entire membership, thereby promoting the global, consistent and effective implementation and enforcement of IMO instruments, and encouraged Member States to volunteer for audit and to nominate qualified auditors.

Chairman's remarks

1.6 In responding, the Chairman thanked the Secretary-General for his words of guidance and encouragement and assured the Secretary-General that his advice and requests would be given every consideration in the deliberations of the Sub-Committee and its working groups.

Adoption of the agenda and related matters

1.7 The Sub-Committee adopted the agenda (COMSAR 12/1), and agreed, in general, that the work of the Sub-Committee should be guided by the annotations to the provisional agenda and timetable (COMSAR 12/1/1), as amended. The agenda of the session, with the list of documents submitted under each agenda item for consideration, is set out in document COMSAR 12/INF.12.

2 DECISIONS OF OTHER IMO BODIES

2.1 The Sub-Committee noted the decisions and comments pertaining to its work made by DE 50, NAV 53, MSC 83 and A 25, as reported in documents COMSAR 12/2, COMSAR 12/2/Add.1, COMSAR 12/2/1 and COMSAR 12/2/2 and took them into account in its deliberations under the relevant agenda items.

2.2 The Sub-Committee also noted that the relevant decisions of DE 51, which took place seven weeks before, had been reported by the Secretariat under agenda items 3 and 10, respectively.

Review of the guidelines on the organization and method of work of the MSC, MEPC and their subsidiary bodies

2.3 The Sub-Committee noted that MSC 83, when considering the Guidelines on the organization and method of work of the MSC and the MEPC and their subsidiary bodies, had agreed that the Guidelines should be strictly adhered to, but, having recognized that, at the same time, flexibility was needed in certain circumstances, agreed that:

- .1 intersessional working groups and technical groups should not be held at the same time as Committee or sub-committee meetings; and
- .2 splinter groups of a working group, if established, should meet outside normal working hours.

2.4 The Sub-Committee also noted that MSC 83 had agreed to extend the deadline for submission of bulky **information** documents from 13 weeks to 9 weeks if they were submitted in electronic format and to amend the Committees' Guidelines accordingly.

Strategic Plan for the Organization for the six-year period 2008 to 2013 and the High-level Action Plan and priorities for the 2008-2009 biennium

2.5 The Sub-Committee noted that the Assembly, at its twenty-fifth session, as requested by the Council, had approved the Strategic Plan for the Organization for the six-year period 2008 to 2013, as adopted by resolution A.989(25) and the High-level Action Plan and priorities for the 2008-2009 biennium, as adopted by resolution A.990(25).

2.6 The Sub-Committee noted further that the twenty-fourth extraordinary session of the Council, with regard to the Strategic Plan and the High-level Action Plan of the Organization, had decided that:

- .1 the Chairmen of all Committees and Sub-Committees should participate in the sessions of the CWGSP (*Ad hoc* Council Working Group on the Organization's Strategic Plan);
- .2 guidelines would be developed on the application of the Strategic and High-level Action Plans, which were expected to facilitate the work of all IMO organs by promoting a greater understanding, within the Organization, of the interconnections between the Strategic and High-level Action Plans and the planned biennial outcomes. They were to be developed with input from all Chairmen and were to include guidance for the assessment of work programme items (i.e. both existing and new) and for the format and content of reports on work carried out by the respective IMO organs; and consideration of any consequential modifications to the guidelines on the organization and method of work of the various IMO organs;
- .3 all IMO organs should set aside, sufficiently early in their agendas, adequate time to enable them to systematically and regularly consider the high-level actions and their associated priorities and their connection to the strategic directions (i.e. general consideration); ensure that their planned activities and, hence, the outputs thereof are accurately and concisely described in the High-level Action Plan (i.e. accuracy of outputs, including timelines); and monitor the production of their outputs (i.e. status review);
- .4 when considering their work programmes and provisional agendas for their next sessions, all IMO organs should cross-reference, under each item, the related strategic directions and high-level actions; and
- .5 in reporting to the Committees on their work programmes, all Sub-Committees should also report on the status of their planned outputs,

and that the above decisions would be discussed at MSC 84 and the Sub-Committees would then be advised on how to proceed.

3 GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)

MATTERS RELATING TO THE GMDSS MASTER PLAN

3.1 The Sub-Committee noted document COMSAR 12/3 (Secretariat) advising that, in accordance with its instructions and using information provided by Governments after February 2007, the Secretariat had issued GMDSS/Circ.9 in March 2007 to amend GMDSS/Circ.8 (Master Plan). Member Governments providing information after COMSAR 11, which was included in GMDSS/Circ.9, were: Algeria, Argentina, Brazil, Chile, Norway, the Republic of Korea and the United Kingdom.

3.2 The Sub-Committee further noted that since issuing GMDSS/Circ.9, up to the time of issuing document COMSAR 12/3, the Secretariat had received updated information from Australia, Brazil, Canada, Chile, Denmark, Germany, Greece, Iran (Islamic Republic of), Montenegro, Portugal, the Syrian Arab Republic, Turkey and Ukraine.

3.3 The Sub-Committee noted also that since issuing document COMSAR 12/3 the Secretariat had received further updates from Côte d'Ivoire, Turkey and the Netherlands, including information on facilities in the Netherlands Antilles and Aruba. The delegation of Greece informed the Sub-Committee that the Greek Cospas-Sarsat MCC was under Full Operational Capability condition (FOC) since 2 January 2008. The Secretariat was planning to issue GMDSS/Circ.10 in May 2008 after the twelfth session of the COMSAR Sub-Committee.

3.4 The Sub-Committee concurred with the proposal by Australia to delete all the references to Inmarsat-A in the GMDSS Master Plan.

3.5 Noting the above information, the Sub-Committee once again requested Member Governments to check their national data in GMDSS/Circ.9 for accuracy, and provide the Secretariat with any necessary amendments, as soon as possible, and to respond to MSC/Circ.684, if they had not already done so.

Draft Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels

3.6 The Sub-Committee noted that SLF 50 had reviewed in detail all chapters of the draft Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels, and agreed to refer the consolidated text of the draft Safety recommendations, as indicated in document SLF 51/5, to the Sub-Committee. Following a brief discussion, the Sub-Committee decided to refer the detailed consideration of chapter 9 – Radiocommunications and annexes XXVI and XXVII relating to the GMDSS system and VHF issues of document SLF 51/5 to the Technical Working Group, taking into account that the annexes XXVIII and XXXII would be considered by the SAR Working Group under agenda item 6 for review and comments, as appropriate.

Draft amendments to the MODU Code

3.7 The Sub-Committee considered document COMSAR 12/3/7 (Secretariat) on the outcome of DE 51 with regard to the draft amendments to the MODU Code (chapter 11 –

Radiocommunication and navigation) on items relating to radiocommunications and decided to refer the issue to the Technical Working Group for review and comments, as appropriate.

OPERATIONAL AND TECHNICAL COORDINATION PROVISIONS OF MARITIME SAFETY INFORMATION (MSI) SERVICES, INCLUDING REVIEW OF THE RELATED DOCUMENTS

3.8 The Sub-Committee noted that MSC 83 had:

- .1 approved the establishment of new NAVAREAs in Arctic Waters;
- .2 endorsed the action of the Secretariat in circulating COMSAR/Circ.40 on List of NAVAREA Coordinators; and
- .3 approved COMSAR.1/Circ.41 on Analysis of maritime safety information promulgated via the EGC (Enhanced Group Call) SafetyNET system and recommendations on improving its quality.

Activities undertaken by the Commission on the Promulgation of Radio Navigational Warnings (CPRNW) and the NAVTEX Coordinating Panel

3.9 In considering document COMSAR 12/3/1 (IHO), the Sub-Committee noted the outcome of the ninth session of the IHO Commission on the Promulgation of Radio Navigational Warnings (CPRNW) held at the headquarters of the International Hydrographic Organization (IHO), Monaco, from 11 to 14 September 2007.

3.10 The Sub-Committee noted the statement by Turkey regarding paragraph 7 of document COMSAR 12/3/1 that, with regards to the MSI self-assessment paper prepared by Spain as the coordinator of NAVAREA III, NAVTEX service areas in the Eastern Mediterranean had not been discussed and no agreement had been reached at any level. Accordingly, there was a need to discuss this issue with the participation of all interested parties.

3.11 The Sub-Committee further noted the statement of Greece regarding paragraph 7 of document COMSAR 12/3/1, that there were no operational needs to change the established limits of the NAVTEX Service Areas in the region. Therefore, Greece considered there was no added value for further discussion on this matter.

3.12 Having considered document COMSAR 12/3/4, the Sub-Committee noted with appreciation the report of the Chairman, International NAVTEX Coordinating Panel, summarizing the current issues being addressed by the Panel and its activities since COMSAR 11.

Review of resolutions A.705(17) and A.706(17)

3.13 Having considered document COMSAR 12/3/2 (IHO), concerning proposed draft amendments to resolutions A.705(17) and A.706(17), as amended, the Sub-Committee decided to refer this document to the Technical Working Group.

3.14 The Sub-Committee considered the view of Turkey that a reference should be included in relevant parts of the amended text for resolution A.705(17), that the defined areas were not related to and should not prejudice the delimitation between States. Taking into account that the proposed amendments to resolution A.705(17) reflected only the exact text as used in resolution A.801(19), the Sub-Committee decided to leave the text unchanged.

Promulgation of Arctic MSI services

3.15 The Sub-Committee recalled that COMSAR 11 had re-established the Joint IMO/IHO/WMO Correspondence Group on Arctic MSI services to give consideration and provide comments on the following:

- .1 who will act as METAREA issuing service?
- .2 how will warnings be transmitted, and can they be monitored as required? Systems other than Inmarsat (such as HF NBDP, NAVTEX and other satellite service providers) need to be considered?
- .3 how will Inmarsat system definition manual and existing SafetyNET terminals be updated to allow receipt of MSI within the new NAVAREAs? and
- .4 required training, assistance, and support from IHO/CPRNW to support new NAVAREA coordinators and/or from JCOMM/ETMSS for METAREA issuing services.

3.16 The Sub-Committee recalled further that the Joint IMO/IHO/WMO Correspondence Group on Arctic MSI services was instructed to submit its report to COMSAR 12.

3.17 The Sub-Committee considered document COMSAR 12/3/5 (Joint IMO/IHO/WMO Correspondence Group) containing the report on the work of the Correspondence Group and addressing the expansion of the World-Wide Navigational Warning Service (WWNWS) into the Arctic waters and decided to refer the detailed consideration of document COMSAR 12/3/5 to the Technical Working Group.

3.18 The Sub-Committee noted the information provided by IMSO that several satellite providers were invited to inform the Correspondence Group about their possible capability to provide MSI services in the Arctic regions. It was further noted that only Iridium and Inmarsat accepted that offer and that the representative of Iridium had expressed the intention to apply for recognition of the Iridium system in accordance with resolution A.1001(25), but that to date no further official steps had been taken by Iridium.

3.19 The Sub-Committee further considered document COMSAR 12/3/6 (Norway) containing a proposal on how to distribute MSI to ships trading in the new NAVAREAs established in the Arctic, and decided to refer this document to the Technical Working Group as well.

List of NAVAREA Coordinators

3.20 Having considered document COMSAR 12/3/3 (IHO), concerning a draft COMSAR circular containing a revised list of NAVAREA Coordinators, the Sub-Committee decided to refer this document to the Technical Working Group.

Establishing the Technical Working Group

3.21 The Sub-Committee instructed the Technical Working Group to consider documents COMSAR 12/3/2, COMSAR 12/3/3, COMSAR 12/3/5, COMSAR 12/3/6 and COMSAR 12/3/7, taking into account decisions of, and comments and proposals made in Plenary and, in particular, to consider:

- .1 chapter 9 and annexes XXVI and XXVII of document SLF 51/5 concerning the draft Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels and provide comments and proposals, as appropriate;
- .2 the draft amendments to chapter 11 (Radiocommunications and navigation) of the MODU Code, as given in document COMSAR 12/3/7, and in particular the matters in square brackets in paragraphs 11.5.2, 11.6, 11.8 (footnotes 7.3, 7.7 and 7.15), 11.9.1.3 and 11.9.2 and provide comments, as appropriate;
- .3 the proposed draft amendments to resolutions A.705(17) and A.706(17), as amended, given in document COMSAR 12/3/2 and prepare the associated draft MSC circulars for adoption by the Committee at its eighty-fifth session;
- .4 the updated list of NAVAREA Coordinators given in document COMSAR 12/3/3 and finalize a draft COMSAR circular on the list of NAVAREA Coordinators; and
- .5 the recommendations given in document COMSAR 12/3/5 of the Correspondence Group on Arctic MSI Services, including the information provided by Norway (COMSAR 12/3/6), and provide comments and recommendations with respect to:
 - .1 a common MSI broadcast system being required for the Arctic region and separate national distribution services for MSI promulgation under GMDSS not being acceptable;
 - .2 HF NBDP being a viable alternative means of promulgation of MSI above the limits of Inmarsat coverage until such time that an Arctic satellite service provider under GMDSS is available; and
 - .3 agreed changes to the coverage areas under the WWNWS, to include the Arctic expansion and other existing coverage gaps, within the Inmarsat-C System Definition Manual, being implemented at the same time,

and report back to Plenary.

Report of the Technical Working Group

3.22 Having received and considered the relevant part of the report of the Technical Working Group (COMSAR 12/WP.3, section 3), the Sub-Committee approved it, in general, and took action as indicated hereunder.

Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels

3.23 The Sub-Committee considered the information provided in chapter 9 and annexes XXVI and XXVII of document SLF 51/5 relating to the Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels developed by SLF 50 and noted that more than eighty percent of the world's fishing fleet (1.3 million decked vessels and 2.7 million undecked) would be covered by these recommendations, and that the task was

complex because of the large number of vessels and the wide variety of their design, construction and equipment.

3.24 After some discussion, the Sub-Committee recommended that SLF 51 should further consider the following:

- .1 that 2182 kHz infrastructure may not be implemented by many administrations and all alternatives such as Inmarsat C should be considered;
- .2 inclusion of AIS equipment; and
- .3 use of AIS SART as an alternative to SART.

3.25 The Sub-Committee considered the question of alignment of the Safety Recommendations with the requirements of the Voluntary Guidelines for vessels between 12 and 24 metres in length, especially on the carriage of Non-DSC VHF equipment, and concluded that there was no incompatibility with the flexible approach currently contained in Part 3 of chapter 9 of the draft Safety recommendations, and that the requirements for vessels of design categories C1, C2 and D should be retained.

3.26 With respect to Annex XXVIII relating to the use of mobile phones, the Sub-Committee noted that while there was some limited capability within cellular networks to determine the location of mobile telephones, MRCCs did not have direct means of direction finding. Furthermore, battery life, supply of reserve batteries or recharging facilities should be sufficient for the entire voyage.

3.27 The Sub-Committee stressed that the use of mobile phones should be strongly discouraged in favour of standard maritime communications equipment, for example, PLBs, EPIRBs, water-proof hand-held transceivers with position fixing capabilities and spare battery.

3.28 The Sub-Committee also advised that terminology and format of Table 9.9 should be made consistent with international terminology and standard definitions for example, using “VHF coverage” or “MF coverage” instead of “ Non-DSC A1” or “ Non-DSC A2”.

3.29 The Sub-Committee instructed the Secretariat to inform SLF 51 accordingly.

MODU Code

3.30 The Sub-Committee considered the proposed revised chapter 11 (Radiocommunications and navigation) of the MODU Code, referred to the Sub-Committee by DE 51 (COMSAR 12/3/7) and in particular, to the text in square brackets in paragraphs 11.5.2, 11.6, 11.8 (footnotes 7.3, 7.7 and 7.15), 11.9.1.3 and 11.9.2 and agreed with the proposed revised chapter 11 of the MODU Code and to retain the text and delete the square brackets and also to insert the following text at the end of sentence in paragraph 11.5.1 “Each unit should also report its position to the relevant World-Wide Navigational Warning Service (WWNWS) NAVAREA Coordinator when arriving on-site, in order for a Navigational Warning to be broadcast, in accordance to resolution A.706(17) as amended. Additionally, units should inform the NAVAREA Coordinator when departing from that site, in order for the broadcast to be cancelled”. The Sub-Committee instructed the Secretariat to inform DE 52, accordingly.

Amendments to resolutions A.705(17) and A.706(17)

3.31 The Sub-Committee considered the proposal by IHO *et al.* (COMSAR 12/3/2) related to draft amendments to resolutions A.705(17) and A.706(17), as amended and endorsed the proposed amendments along with the associated draft MSC circulars, as set out in annexes 1 and 2 respectively. The Committee is invited to adopt the amendments.

NAVAREA Coordinators

3.32 The Sub-Committee considered the updated list of NAVAREA Coordinators provided by IHO (COMSAR 12/3/3) and approved COMSAR.1/Circ.43 on the list of NAVAREA Coordinators with appropriate amendments. The Sub-Committee instructed the Secretariat to circulate it and invited the Committee to endorse this action.

Arctic MSI Services

3.33 The Sub-Committee considered the report of the Joint IMO/IHO/WMO Correspondence Group on Arctic MSI Services (COMSAR 12/3/5) and the information by Norway (COMSAR 12/3/6) and:

- .1 noted the active participation, through national delegations, by members of the Correspondence Group (CG);
- .2 noted the continued coordination with the Commission for the Promulgation of Radio Navigational Warnings (CPRNW) throughout the work of the CG;
- .3 noted the World Meteorological Organization (WMO) endorsement of Environment Canada as the METAREA Issuing Service for METAREAs XVII and XVIII, the Norwegian Meteorological Institute as the METAREA Issuing Service for METAREA XIX, and the Russian Federal Service for Hydrometeorology and Environmental Monitoring as the METAREA Issuing Service for METAREAs XX and XXI;
- .4 endorsed the recommendation of the CG that a common MSI broadcast system was required for the Arctic region and that separate national distribution services for Maritime Safety Information (MSI) promulgation under GMDSS were not acceptable;
- .5 endorsed the recommendation of the CG that until such time that an Arctic satellite service provider under GMDSS was available; HF NBDP was a viable alternative means of promulgation of MSI above the high latitude limits of Inmarsat coverage;
- .6 endorsed the recommendation of the CG that agreed changes to the coverage areas under the World-Wide Navigational Warning Service (WWNWS), to include the Arctic expansion and other existing coverage gaps, within the Inmarsat C System Definition Manual, be implemented at the same time; and
- .7 noted the active participation of assistance of training and technical support to the new Arctic NAVAREA Coordinators and the METAREA Issuing Services from the IHO CPRNW and the WMO respectively.

3.34 The Sub-Committee considered it would be necessary to continue with the work of the Correspondence Group until such time that the new NAVAREA/METAREA services were operational and re-established the Correspondence Group with the following terms of reference:

- .1 taking into account the proposed amended resolutions A.705(17) and A.706(17), including the relevant decisions of COMSAR 10, COMSAR 11 and COMSAR 12, the Joint IMO/IHO/WMO Correspondence Group on Arctic MSI Services should give consideration and provide comments and recommendations relating to:
 - .1 the broadcast of MSI messages by each Arctic NAVAREA Coordinator/METAREA Issuing Service as well as the international coordination and monitoring of such messages;
 - .2 review Inmarsat's proposal with a view to identifying the preferred solution for updating the Inmarsat System Definition Manual (SDM) as well as to establish a timeline for updating the existing SafetyNET terminals to allow receipt of MSI within the new NAVAREAs including the current coverage gaps elsewhere in the world;
 - .3 determination of an implementation timeline for full Arctic MSI services; and
 - .4 determination of the training, assistance, and support necessary to achieve full operational capability of Arctic MSI services as requested by the relevant Administrations and Data Providers,

and submit its report to COMSAR 13.

REPORT OF THE 17TH SESSION OF THE BALTIC/BARENTS SEA REGIONAL CO-OPERATION ON MATTERS RELATING TO THE COMSAR SUB-COMMITTEE (BBRC/COMSAR-17)

3.35 The Sub-Committee noted the information provided by the Russian Federation (COMSAR 12/INF.5) containing the report on the outcome of the 17th session of the Baltic/Barents Sea Regional Co-operation on matters relating to the COMSAR Sub-Committee (BBRC/COMSAR-17) held in Moscow, Russian Federation from 18 to 20 September 2007.

4 ITU MARITIME RADIOCOMMUNICATION MATTERS

RADIOCOMMUNICATION ITU-R STUDY GROUP 8 MATTERS

4.1 The Sub-Committee was informed by the Secretariat on the restructuring of the ITU-R Study Groups and the outcome of the first meeting of ITU-R's Working Party 5B (the former Working Party 8B), which took place at ITU Headquarters in Geneva, Switzerland from 6 to 15 February 2008 and was the first in a series of meetings in the Study Period between the World Radiocommunication Conferences of 2007 and 2011.

Draft diagram on simplified operating guidance on initial distress calls

4.2 The Sub-Committee recalled that COMSAR 11 had considered the proposal by Sweden (COMSAR 11/4) to revise COM/Circ.108 to produce a flow chart, which better described the

operating procedure for a distress alert. After a considerable discussion, the Sub-Committee had agreed not to revise COM/Circ.108 but to prepare another circular for a simplified operating guidance on initial distress calls. Accordingly, COMSAR 11 had developed a preliminary draft diagram on simplified operating guidance on initial distress calls, as set out in annex 2 of document COMSAR 11/18, and invited Member Governments and international organizations to submit comments and proposals to COMSAR 12 with a view to finalization.

4.3 The Sub-Committee recalled further that COMSAR 11 had forwarded the preliminary draft diagram to the fourteenth ICAO/IMO Joint Working Group on the Harmonization of Aeronautical and Maritime Search and Rescue for further consideration.

4.4 The Sub-Committee noted that the Joint Working Group had discussed the matter and that the outcome of the discussions was reflected in document COMSAR 12/6, paragraphs 4.5.5 to 4.5.7 and appendix N. The Joint Working Group saw great merit in the revised flow chart attached at Appendix N to document COMSAR 12/6, both from an amended textual perspective as well as it being more pictorial in form, and proposed that COMSAR 12 give consideration to production and distribution as a supplement to the IMO flow chart called “GMDSS Operating Guidance for Masters of Ships in Distress Situations”.

4.5 Having briefly considered documents COMSAR 12/4/6 (Sweden) containing a proposal of the withdrawal of COM/Circ.108 and MSC/Circ.892 and a new flowchart clarifying the INITIAL DISTRESS procedure and COMSAR 12/INF.6 (Canada) concerning the update of a national document reflecting similar simplified distress procedures to those proposed by Sweden in document COMSAR 11/4, the Sub-Committee decided to refer the consideration of the draft diagram on simplified operating guidance on initial distress calls to the Technical Working Group.

Recommendation ITU-R M.493-12

4.6 The Sub-Committee noted document COMSAR 12/INF.2 (Secretariat) containing information on the revised version of Recommendation ITU-R M.493-11, adopted by ITU-R Study Group 8 and approved by consultation. The consultation period ended 14 March 2007 and ITU had brought the Recommendation ITU-R M.493-12 to the attention of IMO on 30 April 2007.

4.7 Having briefly considered documents COMSAR 12/4/1 (Secretariat) containing a liaison statement from ITU-R Working Party 8B’s June 2007 meeting concerning clarification of Recommendation ITU-R M.493-12, COMSAR 12/4/7 (United Kingdom) concerning the recent work of the ITU-R in revising recommendation ITU-R M.493, and COMSAR 12/4/8 (United States) commenting on document COMSAR 12/4/7, the Sub-Committee decided to refer the matter to the Technical Working Group for detailed consideration.

4.8 The Sub-Committee instructed the Technical Working Group to take the views expressed in the Plenary into account, most of which supported the United Kingdom’s view that there was no requirement for a distress relay calls functionality for Class D DSC and that any further changes to ITU-R recommendation 493-12 should be confirmed by sufficient studies and testing of equipment, which could include field trials. The Technical Working Group was also instructed to take the views expressed that the requirements for MF and HF DSC should stay in place, without any changes, for the foreseeable future.

VHF data exchange and electronic mail using narrow-band techniques

4.9 The Sub-Committee noted document COMSAR 12/INF.3 (Secretariat) containing the draft new Recommendation for VHF data exchange and electronic mail using narrow-band techniques.

4.10 The Sub-Committee considered documents COMSAR 12/4/2 (Secretariat) containing a liaison statement from ITU-R Working Party 8B's June 2007 meeting on VHF Radio System and Equipment for the exchange of data and electronic mail on maritime appendix 18 channels, and COMSAR 12/4/5 (Norway) providing information on the VHF Data system covering the Norwegian coast and offshore installations in the North Sea. The Sub-Committee decided to refer both documents to the Technical Working Group for detailed consideration.

ITU WORLD RADIOCOMMUNICATION CONFERENCE MATTERS

4.11 The Sub-Committee recalled that MSC 78 had approved the establishment of a Joint IMO/ITU Experts Group for preparation of an IMO position to the ITU World Radiocommunication Conference 2007 (WRC-07) and that the expert group had prepared a draft IMO position to WRC-07 at its meetings in June 2004 and June 2005 and a draft Supplementary advice at its meeting in July 2006.

4.12 The Sub-Committee recalled further that MSC 81 had approved the draft IMO position on WRC-07 agenda items concerning matters relating to maritime services, as prepared by COMSAR 11 and that MSC 82 had approved the Supplementary advice on the IMO position paper.

4.13 The Sub-Committee noted that, as instructed by the Committee, the Secretariat had conveyed the IMO position and the Supplementary advice to ITU. The information was made available to the second Conference Preparatory Meeting for WRC-07, which took place in Geneva, Switzerland, from 19 February to 2 March 2007 and to the WRC-07 later that year.

4.14 The Sub-Committee noted further that the Secretariat had participated in the WRC-07 as an observer.

4.15 The Sub-Committee noted the appreciation expressed by the observer of IMSO for the support provided by the IMO Secretariat at WRC-07, in particular with regard to the C-band issue under consideration in agenda item 1.4, in satisfactorily preventing the possibility of harmful interference being caused to the feeder downlinks from the Inmarsat satellites to the Inmarsat earth stations.

4.16 The Sub-Committee considered documents COMSAR 12/4 (Secretariat) containing the outcome of WRC-07, which took place in Geneva, Switzerland, from 22 October to 16 November 2007, COMSAR 12/4/3 (IFSMA) concerning the Future use of 500 kHz and COMSAR 12/4/4 (United States) concerning Spectrum requirements and potential frequency bands suitable to support ship and port security and enhanced maritime safety systems, and decided to refer the matter to the Technical Working Group.

4.17 The Sub-Committee noted the view expressed by the United Kingdom, supported by others that, with regard to the proposal by IFSMA (COMSAR 12/4/3) to preserve the heritage of the important frequency 500 kHz, they considered this frequency could be better used in future

than just retaining it as a calling frequency available for use by operators to conduct wireless telegraphy.

4.18 The Sub-Committee noted that the issue described by the United States in document COMSAR 12/4/4 was only a starting point for a long debate, which would take place up to the next WRC in 2011. Some views were expressed that this matter should initially be discussed at a higher level to consider all issues related to the ISPS Code, the implementation of the LRIT system and the use of AIS. Other delegations proposed to forward the issue to the Joint IMO/ITU Expert Group, re-established at this session, to clarify the issue and report back to COMSAR 13. The Technical Working Group was instructed to take the above mentioned views into consideration.

4.19 In any case, the Committee should be invited to endorse the action taken by the Sub-Committee and invite comments thereon by its MSWG, as appropriate.

TERMS OF REFERENCE FOR THE TECHNICAL WORKING GROUP

4.20 The Sub-Committee instructed the Technical Working Group, established under agenda item 3, to consider documents COMSAR 12/4, COMSAR 12/4/1, COMSAR 12/4/2, COMSAR 12/4/3, COMSAR 12/4/4, COMSAR 12/4/5, COMSAR 12/4/6, COMSAR 12/4/7, COMSAR 12/4/8, COMSAR 12/6, paragraphs 4.5.5 to 4.5.7 and Appendix N, COMSAR 12/INF.6 and COMSAR 11/18, annex 2, taking into account decisions of, and comments and proposals made at Plenary, and in particular to:

High-priority items:

- .1 consider documents COMSAR 12/4/1, COMSAR 12/4/7 and COMSAR 12/4/8 concerning Digital Selective Calling (DSC) and provide guidance/comments and recommendations on whether:
 - .1 MSC/Circ.803 contains clear guidance of the Organization on the functional requirements of the GMDSS appropriate to allow effective participation of non-SOLAS ships in the GMDSS;
 - .2 all extra DSC functions for DSC equipment Class D, such as distress relays, can be removed from recommendation ITU-R M.493;
 - .3 MF and HF DSC is little used and only serves as a back-up system by most ships and for the sake of simplicity of operation should conform to the essential requirements of the Organization for the carriage of back-up equipment; and
 - .4 there is a need for a liaison statement to ITU-R Working Party 5B, and if so prepare such a liaison statement;
- .2 consider the need for the re-establishment of the Joint IMO/ITU expert group, and if so prepare draft terms of reference for this group (in consultation with the ITU Secretariat a meeting for the expert group is preliminary scheduled to be held from 10 to 12 June 2008 at IMO Headquarters);

Low-priority items:

- .3 finalize the draft diagram on simplified operating guidance on initial distress calls as given in COMSAR 11/18, annex 2, taking into account COMSAR 12/4/6, COMSAR 12/INF.6, and COMSAR 12/6, paragraphs 4.5.5 to 4.5.7 and Appendix N;
- .4 consider documents COMSAR 12/4/2 and COMSAR 12/4/5 on VHF Radio System and Equipment for the exchange of data and electronic mail on maritime appendix 18 channels and prepare appropriate comments and recommendations;
- .5 consider the outcome of WRC-07 as provided in document COMSAR 12/4 and prepare appropriate comments and recommendations;
- .6 consider the future use of the calling and distress frequency of 500 kHz frequency (COMSAR 12/4/3) and prepare appropriate comments and recommendations; and
- .7 consider spectrum requirements and potential frequency bands suitable to support ship and port security and enhanced maritime safety systems (COMSAR 12/4/4) and prepare appropriate comments and recommendations,

and prepare a report for consideration by Plenary.

Report of the Technical Working Group

4.21 In considering the relevant part of the Technical Working Group's report (COMSAR 12/WP.3, section 4), the Sub-Committee took action as indicated hereunder.

Radiocommunication ITU-R Study Group 8 matters

4.22 The Sub-Committee considered the liaison statement from Working Party 8B to IMO (COMSAR 12/4/1) concerning the clarification of Recommendation ITU-R M.493-12 in respect of DSC functionality. In this context, the Sub-Committee discussed in detail the DSC carriage and functionality requirements for Class D equipment in documents COMSAR 12/4/7 and COMSAR 12/4/8 (part) and supported the view that, in line with the current guidance in MSC/Circ.803, the specification for Class D equipment should not include an excessive degree of functionality that would be inappropriate for the intended use on non-SOLAS vessels.

4.23 The Sub-Committee further expressed the view that:

- .1 MSC/Circ.803 contained the guidance of the Organization on the functional requirements of the GMDSS appropriate to allow effective participation of non-SOLAS ships in the GMDSS and that ITU should be requested that all extra functions for class D equipment such as distress relays should be removed from recommendation ITU-R M.493; and
- .2 ITU-R should be advised that, since DSC was now a very well established system, any proposed changes should be confirmed by sufficient studies and testing, which could include field trials, of equipment before any changes to the system were recommended.

4.24 In light of the foregoing, the Sub-Committee approved a liaison statement to ITU-RWP 5B, as amended and set out in annex 3 and instructed the Secretariat to convey it to ITU and invited the Committee to endorse this action.

Narrowband VHF data exchange and electronic mail

4.25 The Sub-Committee considered the liaison statement from ITU-R WP 8B giving the assurance that narrowband VHF data exchange and electronic mail services could operate satisfactorily without causing interference to shore-based e-navigation services especially the AIS (COMSAR 12/4/2) and did not consider it necessary to prepare corresponding liaison statement, however the chairman of the Technical Working Group undertook to thank WP5B at its next meeting.

VHF Radio systems and technology

4.26 The Sub-Committee considered information provided by Norway (COMSAR 12/4/5), United States (COMSAR 12/4/8 (part)) and the United Kingdom (COMSAR 12/7/2 (part)) and was in favour of leaving options for the development of VHF radios systems and technology open for further discussions, including but not limited to:

- .1 retention of FM voice communications, possibly using 12.5 kHz channel spacing;
- .2 narrow band digital voice and data communication using 6.25 kHz channel spacing; and
- .3 broadband data communications using two or more 25 kHz adjacent channels, using digital data technologies in infrastructure mode or in direct mode.

MF/HF Radio systems and technology

4.27 The Sub-Committee considered the question of DSC requirements at MF/HF in sea area A2, noting the views expressed by United States and the United Kingdom in documents COMSAR 12/4/8, (part), COMSAR 12/7/2, (part) respectively and did not agree that the MF and HF DSC components of the GMDSS served only as a back-up system. Furthermore, with respect to specific proposals for the deletion of MF DSC requirements in sea area A2, the Sub-Committee was not in favour of considering this possibility at this time.

World Radiocommunication Conference matters

4.28 The Sub-Committee considered the outcome of the ITU World Radiocommunication Conference, 2007 (COMSAR 12/4), on issues of relevance to IMO, and noted with appreciation that most of the IMO positions were taken into account by the Conference.

4.29 Accordingly, the Sub-Committee prepared a summary of issues of relevance to the Sub-Committee, as set out in annex 5 of document COMSAR 12/WP.3, for further consideration and preparation of comments and recommendations, as appropriate.

Joint IMO/ITU Experts Group

4.30 The Sub-Committee agreed to the re-establishment of the Joint IMO/ITU Experts Group to discuss common areas of interest and prepare the IMO position paper for submission to WRC 11. Accordingly, the Sub-Committee approved the re-establishment of the Joint IMO/ITU

Experts Group on maritime radiocommunications matters along with the terms of reference as set out in annex 4 and the holding of a meeting from 10 to 12 June 2008 at IMO Headquarters. The Sub-Committee invited the Committee to endorse this action.

Flowchart diagrams for distress procedures

4.31 The Sub-Committee, in considering documents COMSAR 12/4/6, COMSAR 12/INF.6 and COMSAR 12/6, paragraphs 4.5.5 to 4.5.7 and Appendix N, supported the need to improve the content and design of flowchart diagrams for distress procedures. However, there was a note of caution against discarding the work of the Joint IMO/ICAO Working Group and the deletion of COMSAR/Circ.108 in this respect without adequate consultation. Furthermore, views were expressed that not all problems could be solved by inclusion of diagrams only. A majority was in favour of further consideration of the proposals in document COMSAR 12/4/6 (Sweden). However, as there was no consensus on this issue, the Sub-Committee prepared a draft revised flowchart, as set out in annex 7 of document COMSAR 12/WP.3, for further consideration by the IMO/ITU Experts Group and COMSAR 13.

Future use of 500 kHz

4.32 The Sub-Committee considered the proposal by IFSMA (COMSAR 12/4/3) and noted that the use of 500 kHz for heritage purposes was now allowed under the Radio Regulations as revised by WRC-07. Furthermore, a number of possibilities for future use of this frequency could be envisaged such as MSI, e-navigation or port safety in the future and the Sub-Committee did not support the proposal for reserving the use of 500 kHz for a single purpose. The Sub-Committee noted that the related issue of a possible secondary allocation to the amateur service of 15 kHz in the band 415 – 526.5 kHz had been placed on the agenda of WRC-11 (agenda item 1.23) and that there was a need to give careful consideration of the possible impact on maritime radiocommunication needs by the IMO/ITU Expert Group. Accordingly, the Sub-Committee urged Member Governments and international organizations to submit comments and proposals to COMSAR 13.

Port Security status

4.33 The Sub-Committee considered the proposal by the United States (COMSAR 12/4/4) concerning radio spectrum requirements to support port safety and security and raised the following questions:

- .1 whether it should be referred to MSC for consideration;
- .2 whether it was consistent with the ISPS Code;
- .3 concern regarding the lack of background information and direction; and
- .4 whether there was a compelling need for additional spectrum resource requirements to support new systems taking onto account that the existing capacity in the SafetyNET service might be sufficient.

4.34 Noting the above and the view expressed by the United States that this was only a starting point, the Sub-Committee agreed that this proposal should first be considered by the Joint IMO/ITU Expert Group.

4.35 In order to assist the Joint IMO/ITU Experts Group, in particular regarding any impact on radio spectrum use, it was considered that background information on relevant procedural and standardization aspects should also be sought from IHO and ISO. Accordingly, the Sub-Committee approved a liaison statement to IHO and ISO on ship and port security requirements for ITU's World Radiocommunication Conference 2011, as set out in annex 5, and instructed the Secretariat to convey it to IHO and ISO and invited the Committee to endorse this action.

5 SATELLITE SERVICES (INMARSAT AND COSPAS-SARSAT)

5.1 The Sub-Committee noted that MSC 83:

- .1 after agreeing on a proposed amendment by Norway to ensure that the level of safety of life at sea was not diminished by the introduction of new satellite systems for future use in the GMDSS and that satellite system providers should have an obligation to grant MRCCs direct access to their systems, had approved the draft Assembly resolution on Criteria for the provision of Mobile Satellite Communication Systems in the GMDSS, revoking resolution A.888(21) and MSC/Circ.1077, for submission to the twenty-fifth session of the Assembly for adoption; and
- .2 had also considered the new SOLAS regulation IV/4-1 (GMDSS satellite providers) prepared by COMSAR 11 and adopted the amendment unanimously by resolution MSC.239(83), which is expected to enter into force on 1 July 2009.

5.2 The Sub-Committee further noted that the Assembly, at its twenty-fifth session, had adopted resolution A.1001(25) on Criteria for the provision of mobile satellite communication systems in the GMDSS, as amended on 29 November 2007.

INMARSAT SERVICES

5.3 The Sub-Committee noted with appreciation the information in document COMSAR 12/5/2 (IMSO) providing an analysis and assessment of the performance by Inmarsat Global Ltd. of the company's obligations for the provision of maritime services within the GMDSS, as overseen by IMSO. The information covered the period from 1 November 2006 to 31 December 2007. It was assessed that, during this period, Inmarsat had continued to provide a sufficient quality of service to meet its obligations under the GMDSS.

List of Coast Earth Station (CES) Operation Coordinators in the Inmarsat system

5.4 The Sub-Committee was informed that the Secretariat, in consultation with IMSO, had revised document COMSAR.1/Circ.38 including the Corrigendum on the List of Coast Earth Station (CES) Operation Coordinators in the Inmarsat system. The Sub-Committee approved the revised text and instructed the Secretariat to circulate the List of Coast Earth Station Operation Coordinators in the Inmarsat system by COMSAR.1/Circ.42, revoking COMSAR/Circ.38 including the Corrigendum.

5.5 Taking into account the fact that it was a routine update of information provided by IMSO and that there was no compelling need to bring the changes to this factual information to the Sub-Committee for approval, the Sub-Committee considered it appropriate to authorize the Secretariat, in future, to revise and publish this COMSAR circular on the List of Coast Earth Station (CES) Operation Coordinators in the Inmarsat system on an annual basis, without

bringing it first to the attention of the Sub-Committee for approval. The Committee was requested to endorse this authorization.

Technologies for LRIT concerning Inmarsat-C

5.6 During this session of the Sub-Committee, CIRM provided a presentation on Technologies for LRIT concerning Inmarsat-C.

COSPAS-SARSAT SERVICES

5.7 The Sub-Committee noted with appreciation the information in document COMSAR 12/5 (Cospas-Sarsat), providing a status report on the Cospas-Sarsat System, including System operations, space and ground segments, beacons, the International 406 MHz Beacon Registration Database (IBRD), false alerts and interference.

International Cospas-Sarsat Programme Strategic Plan

5.8 The Sub-Committee considered document COMSAR 12/5/1 (Cospas-Sarsat), providing background on their current Programme strategic planning effort and inviting the Sub-Committee to provide input from the IMO perspective on long-term search and rescue issues and requirements, for consideration by Cospas-Sarsat during its long-term planning efforts.

5.9 The Sub-Committee noted that the fourteenth session of the ICAO/IMO Joint Working Group on the Harmonization of Aeronautical and Maritime Search and Rescue had also discussed this matter and that the outcome of discussions was reflected in document COMSAR 12/6, paragraphs 4.5.19 to 4.5.22.

5.10 Recognizing that the SAR perspective of this issue had already been discussed in the Joint Working Group, the Sub-Committee instructed the Technical Working Group, taking into account decisions of, and comments and proposals made at Plenary, to consider documents COMSAR 12/5/1 and COMSAR 12/6 (paragraphs 4.5.19 to 4.5.22) and provide input from the IMO perspective on long-term search and rescue issues and requirements, for consideration by Cospas-Sarsat during its long-term planning efforts and prepare a report for consideration by Plenary.

Report of the Working Group

5.11 In considering the relevant part of the Technical Working Group's report (COMSAR 12/WP.3, section 5), the Sub-Committee took action as indicated hereunder.

5.12 The Sub-Committee considered the background on the current Cospas-Sarsat Strategic planning effort (COMSAR 12/5/1) along with the relevant part of the report of the ICAO/IMO Joint Working group on Harmonization of Aeronautical and Maritime Search and Rescue (COMSAR 12/6) and agreed that the following factors should be taken into account when preparing the Cospas-Sarsat strategic plan:

- .1 maintaining free availability of Cospas-Sarsat distress alert and location services;
- .2 improving education of States in the availability and use of the Cospas-Sarsat system;

- .3 further action on unregistered beacons or beacons changing ownership without re-registration;
- .4 further action on inadvertent activations, false alerts and improper testing procedures;
- .5 action on non-responsive SAR Points of Contact; and
- .6 maintaining sufficient resources within the Cospas-Sarsat Secretariat to manage the IBRD, noting that an increasing number of States may seek to use it and that, as the number of beacons increases, capacity needs to increase.

5.13 The Sub-Committee instructed the Secretariat to convey the information to Cospas-Sarsat.

6 MATTERS CONCERNING SEARCH AND RESCUE, INCLUDING THOSE RELATED TO THE 1979 SAR CONFERENCE AND IMPLEMENTATION OF THE GMDSS

HARMONIZATION OF AERONAUTICAL AND MARITIME SEARCH AND RESCUE PROCEDURES, INCLUDING SAR TRAINING MATTERS

6.1 The Sub-Committee noted that, as requested by COMSAR 11, MSC 83 had extended the target completion date for the work programme agenda item “Harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters” to 2008.

14th Meeting of the ICAO/IMO Joint Working Group on the Harmonization of Aeronautical and Maritime SAR

6.2 The Sub-Committee noted that, as agreed by COMSAR 11 and endorsed by MSC 83, the fourteenth meeting of the International Civil Aviation Organization/International Maritime Organization (ICAO/IMO) Joint Working Group (JWG) on the Harmonization of Aeronautical and Maritime Search and Rescue was held in St. Gilles, Réunion (France), from 10 to 14 September 2007.

6.3 The Sub-Committee further noted that MSC 83 had approved the intersessional meeting of the next Joint ICAO/IMO Working Group to be held in September 2008.

6.4 The Sub-Committee considered document COMSAR 12/6 (Secretariat), the report of the fourteenth session of the ICAO/IMO Joint Working Group on Harmonization of Aeronautical and Maritime Search and Rescue and decided to refer the document to the SAR Working Group for detailed consideration.

Availability and amendment of the IAMSAR Manual

6.5 The Sub-Committee considered document COMSAR 12/6/6 (United Kingdom), proposing that the IAMSAR Manual should be made more readily available to users, and that a more streamlined and structured amendment process for the Manual should be adopted by the Organization.

6.6 The Sub-Committee noted, with regard to the free of charge on line availability of the IAMSAR Manual, the information provided by the Secretariat of the Organization's long standing publishing policy of treating the Organization's publications as its intellectual assets, and recalled its objectives of pricing books and CD-ROMs realistically so as to ensure the widest possible dissemination to the shipping industry and the maritime community. The Organization now had in place a highly effective distribution system, which includes the appointment of specialized maritime agents and booksellers on a world-wide basis, currently consisting of more than 130 distributors. It was further noted that the revenue from publications' sales play a significant material part in the Organization's finances, and that the accumulated surpluses of the Printing Fund had contributed significantly to the funding of the Technical Co-operation Fund and the Integrated Technical Co-operation Programme.

6.7 In considering the proposal to make the IAMSAR Manual freely available on-line, some delegations expressed their support; others specified that only the amendments should be made freely available on the website. Some other delegations expressed concern about the financial implications of so doing, in particular, the significant reduction that would result in the contribution that sales of the manual make to the Printing Fund and, through transfers from that fund to the Technical Co-operation Fund and the Organization's Integrated Technical Co-operation Programme (ITCP). Other delegations expressed the view that they were in favour of inviting the Committee to consider the free of charge on line availability of the IAMSAR Manual, with a view to submitting an appropriate recommendation to the Council.

6.8 The Sub-Committee further noted that the evaluation of the results of a pilot scheme to make certain IMO instruments available free on-line, showed that the main users of the service offered in the pilot scheme were from the private sector and in developed countries, not those developing countries that the scheme had aimed to benefit. The Sub-Committee also noted that the Organization's policy with respect to the free availability of IMO publications online had been considered by the Council previously and it was ultimately up to that body to make the final decision regarding the financial implications of a decision in this regard.

6.9 With regard to the proposal for a more streamlined approval process, a number of delegations expressed the view that a more structured amendment process should be established and the approval responsibility should be delegated to COMSAR, as the expert Sub-Committee overseeing the Manual for the Organization.

6.10 The Chairman, in summing up the debate, stated that there had been a good intensive discussion. There had been a lot of arguments, both in favour and against the proposal for making the IAMSAR Manual free of charge available online. The positive aspect of this discussion was that it had provided the Sub-Committee with a clearer picture of the pros and cons of the issue. In concluding, he outlined the following course of follow-up action:

- .1 to invite the Committee to agree to establishing a more structured amendment process;
- .2 to invite the Committee to consider making the amendments to the IAMSAR Manual available free of charge on the Publications part of the IMO website; and
- .3 not to make the full text of IAMSAR Manual available free of charge on the IMO website at this stage and to leave the distributions of publications as currently practised, including the free of charge distribution of two copies of every publication to Members.

The Sub-Committee endorsed the above conclusion and invited Member Governments to submit proposals to MSC 85, as appropriate.

Report on the intermediate phase of the World Maritime University (WMU) Project on Search and Rescue Research related to Passenger Ships

6.11 The Sub-Committee noted that MSC 83 had considered document MSC 83/13/1 (Secretariat) reporting on the Intermediate Phase of the WMU Project on Search and Rescue Research related to Passenger Ships. The Committee had noted that following MSC 82 and COMSAR 11, the World Maritime University had taken two initiatives, namely:

- .1 it had developed and implemented the framework for the SAR Information Platform on the WMU website and begun to populate the platform with relevant academic publications, project reports, relevant IMO documents and other information sources; and
- .2 following informal consultations with SAR practitioners and researchers, it had offered to host an expert group of those actively involved in or affected by research in SAR matters; this initiative had produced encouraging support from a number of institutions and individuals.

6.12 The Sub-Committee also noted that MSC 83 had:

- .1 endorsed the holding of a workshop of the aforementioned expert group, to review the prevailing material information hosted on the platform and advise on further data sources which could be supported by the platform, using the available budget for the 2006-2007 biennium for the implementation of Phase II;
- .2 endorsed the WMU proposal to submit the report on the Intermediate Phase directly to COMSAR 12; and
- .3 instructed COMSAR 12 to consider and provide its views and recommendations to MSC 85.

6.13 The Sub-Committee considered documents COMSAR 12/6/3 and COMSAR 12/6/3/Add.1 (Secretariat) reporting on the intermediate phase of the World Maritime University (WMU) Project on Search and Rescue Research related to Passenger Ships including the workshop on SAR research and similar activities hosted by WMU in December 2007 in Malmö, Sweden, submitted in accordance with the instructions of MSC 83 to COMSAR 12 and decided to refer the documents to the SAR Working Group for detailed consideration.

List of IMO documents and publications which should be held by a Maritime Rescue Coordination Centres

6.14 The Sub-Committee was informed that, as instructed by COMSAR 5, the Secretariat, taking into account the outcome of the eighty-first, eighty-second and eighty-third sessions of the Committee and the twenty-fifth Assembly, had updated the List of IMO documents and publications, previously issued as SAR.7/Circ.7, which were considered essential for use by Maritime Rescue Coordination Centres.

6.15 The Sub-Committee considered the revised draft text of the SAR.7 circular and decided to refer it to the SAR Working Group for detailed consideration.

PLAN FOR THE PROVISION OF MARITIME SAR SERVICES, INCLUDING PROCEDURES FOR THE ROUTING DISTRESS INFORMATION IN THE GMDSS

Persons rescued at sea

6.16 The Sub-Committee noted that MSC 83 had considered document MSC 83/27/6 (Spain) informing the Committee that it was experiencing a great flood of migrants from Africa towards Europe. The Spanish Maritime Rescue Service had rescued, in 2006 alone, 30,493 migrants from the sea. Spain stated that entry into force of the 2004 amendments to the SOLAS and SAR Conventions, as adopted by resolutions MSC.153(78) and MSC.155(78), had, in their opinion, not brought the desired results. Spain had therefore made a set of proposals intended to ensure that the international community had a secure and effective legal system in place. Among others it had suggested the need for making the guidelines, which had been adopted by resolution MSC.167(78), mandatory under the SOLAS and/or SAR Convention.

6.17 The Sub-Committee also noted that, after a lengthy debate, MSC 83 had expressed appreciation to Spain for bringing this problem to its attention, recognizing the need for caution in relation to associated issues outside IMO's remit, and agreed that there was a need for further discussion and work by IMO, without disturbing the delicate balance achieved with the 2004 Amendments to the SOLAS and SAR Conventions and the associated Guidelines.

6.18 The Sub-Committee further noted that the Secretary-General had informed the Committee that the Secretariat was fully aware of the problem which, if left unattended, would endanger innocent lives at sea. He had communicated with the Spanish Government on the issues under consideration and had highlighted the problem in his speech to the first ever Conference of African Ministers of Transport in Abuja earlier last year. He had acknowledged that parts of the problem were outside the remit of IMO and had recalled the inter-agency initiative on persons rescued at sea and the associated meetings in 2001 and 2003 between IMO, IOM, OHCHR, UNHCR, UN/DOALOS and UNODC which had resulted in closer co-operation between the Organizations concerned. Following the recent increase of incidents, particularly in the Mediterranean, another inter-agency meeting had been held in January 2008 to consider any further action to be taken in a coordinated manner. The Secretary-General had also indicated that technical co-operation in terms of capacity-building would be available in particular to the African States in respect of this issue.

6.19 The Sub-Committee observed that MSC 83 had acknowledged efforts undertaken on a bilateral or multilateral level and the supplementary action under way at the EU level, as well as the intention by Spain to propose a new work programme item to MSC 84 and expressed appreciation to the Secretary-General for the continuation of the inter-agency initiative as well as the suggested technical co-operation possibilities.

6.20 The Sub-Committee also noted that the Secretariat had reported to MSC 84 on the outcome of the third meeting of the UN Inter-agency group on the treatment of persons rescued at sea, held in Geneva, 11 December 2007, in document MSC 84/20/1.

6.21 The delegation of Spain informed the Sub-Committee that in co-operation with Italy, it had submitted document MSC 84/22/9 to MSC 84 on the need to include a new item on the work programme of the FSI Sub-Committee, concerning persons rescued at sea.

6.22 The delegation of Indonesia informed the Sub-Committee that on 6 February 2008, an Indonesian ship M/V **Fitria Persada** sank in Indonesian waters; 15 of 19 the ship's crews had been rescued by Marshall Islands flag ship named **Warringa**. On behalf of the Indonesian Government, the survivors and their families, the Indonesian delegation would like to thank and express its appreciation to the Master and crew of M/V **Warringa**, in particular and also to the Marshall Islands Government. Secondly, the Indonesian delegation also thanked the Marshall Islands for providing useful information to it during the DE Sub-Committee meeting in Bonn last February. This information had helped Indonesia to take all measures to improve and upgrade all its MRCC's personnel and to eliminate any deficiencies in SAR communications for the future.

In relation to difficulties of communication using plain language, the Indonesian delegation mentioned the "International Code of Signals 1969" which had been amended many times and might have been forgotten by most of the persons involved in SAR communications. The Indonesian delegation urged the Sub-Committee to take appropriate action to reintroduce that Code and the associated signals, although using and developing new methods of communications were also important.

Draft Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels

6.23 The Sub-Committee noted that SLF 50 had reviewed in detail all chapters of the draft Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels, and referred the consolidated text of the draft Safety recommendations, as indicated in document SLF 51/5, for review and comments by COMSAR 12.

6.24 The Sub-Committee decided to refer the detailed consideration of the annexes XXVIII and XXXII, relating to the use of mobile telephones and to distress signals, of document SLF 51/5 to the SAR Working Group, taking into account that chapter 9 – Radiocommunications and annexes XXVI and XXVII would be considered by the Technical Working Group under agenda item 3 for review and comments, as appropriate.

Global SAR Plan

6.25 The Sub-Committee noted the background information provided by the Secretariat concerning the document published as SAR.8/Circ.1, as amended by corrigenda 1 to 5, better known as the Global SAR Plan. Besides the information on the national responsible authority for maritime SAR, the available rescue coordination centres and/or sub-centres and other relevant detailed information, the Global SAR Plan also contained the Limits of the area for which the centres were responsible for, the so called Search and Rescue Regions.

6.26 The Sub-Committee further noted that only what had formally been notified to IMO was published in the Global SAR Plan. IMO was not publishing provisional areas, as agreed upon during the many Conferences concerning SAR and GMDSS held in recent years. The Sub-Committee recalled that the information on these provisional areas was available in document COMSAR 5/INF.2.

6.27 The Sub-Committee was informed that, to get the information published, Member Governments needed to notify IMO formally of the establishment of their Search and Rescue Regions, even if they had simply agreed to be responsible for the area as agreed upon during one of the important Conferences in the past.

6.28 The Sub-Committee recalled that, in accordance with paragraph 2.1.4 of the annex to the 1979 SAR Convention “each search and rescue region shall be established by agreement among Parties concerned and that the Secretary-General shall be notified of such arrangements”.

6.29 The Sub-Committee noted document COMSAR 12/6/1 (Secretariat) advising that, as instructed by the Sub-Committee and based on information provided by Governments, the Secretariat had issued SAR.8/Circ.1/Corr.5 (Global SAR Plan) after COMSAR 11, in April 2007 which included information provided by Algeria, Portugal and Sweden.

6.30 The Sub-Committee noted further that since the issuance of SAR.8/Circ.1/Corr.5, the Secretariat had received further information from Democratic People’s Republic of Korea, Denmark, Ecuador, Italy, Mexico, New Zealand, Poland and Slovenia.

6.31 The Sub-Committee noted also that since issuing document COMSAR 12/6/1 the Secretariat had received further updates from the Netherlands, including information on the availability of SAR Services in the Netherlands Antilles and Aruba. The Secretariat was planning to issue SAR.8/Circ.1/Corr.6 in May 2008 after the twelfth session of the COMSAR Sub-Committee.

6.32 The Sub-Committee once again reiterated its invitation to Member Governments to respond to COMSAR/Circ.27 as soon as possible if they had not already done so.

The establishment of MRCCs and MRSCs in all African coastal States bordering the Atlantic and Indian Oceans

6.33 The Sub-Committee noted with appreciation information provided in document COMSAR 12/6/2 (Secretariat) containing a progress report on the establishment of MRCCs and MRSCs in all African coastal States bordering the Atlantic and Indian Oceans.

6.34 The delegation of Nigeria thanked IMO for all the Technical assistance provided, and in particular with regard to the recent consultancy visit which enabled them to focus fully on finalizing issues to be ready for the commissioning of the R-MRCC in May of this year.

6.35 The delegation of Chile recalled that, at COMSAR 11, it had expressed its willingness to perform technical assistance and training activities for Latin American countries, and to introduce the Global SAR Plan in all Member States. With regard to these activities a corresponding MoU had been signed with IMO and the Chilean delegation informed the Sub-Committee during this session that currently an addendum of the MoU was under consideration concerning support to African countries.

6.36 The Sub-Committee also noted information provided by South Africa and Liberia concerning the developments in their respective regions.

6.37 The Sub-Committee further noted the information provided by Côte d’Ivoire that it had sent information regarding GMDSS shore-based facilities to IMO including the request to progress training arrangements for the region.

6.38 The Sub-Committee noted with appreciation a presentation provided by Malta concerning a “Project on Search and Rescue”. The Sub-Committee further noted the kind offer of Malta, with financial and technical assistance from the United States, to provide free training for SAR personnel at the Search and Rescue training centre in Malta and invited, primarily African

countries, to send students to attend the course for SAR mission coordinator, informing that there were still 36 places available in two courses at the end of the year.

6.39 The Sub-Committee recalled that the 2000 Florence Conference on maritime SAR and GMDSS had also adopted resolution No.2 on the establishment of an International SAR Fund. The Sub-Committee was informed by the Secretariat that the SAR Fund was by far not reaching the estimated budget to support the installation of equipment and the training for the personnel of all the centres involved.

6.40 The Sub-Committee consequently invited once again Member Governments and the Industry to make contributions financially or in-kind towards equipping the already established and proposed Regional Maritime Rescue Coordination Centres, which were dedicated to a purely humanitarian purpose.

Agreements on Search and Rescue Regions

6.41 The Sub-Committee noted the information provided in document COMSAR 12/INF.4 (Secretariat) advising that, in accordance with instructions and using information provided by Governments, the Secretariat had circulated Notifications of Agreements on Search and Rescue Regions in accordance with paragraph 2.1.4 of the Annex to the International Convention on Maritime Search and Rescue, 1979, as amended (1979 SAR Convention) as SAR.6 circulars since 1994.

6.42 The Sub-Committee emphasized the importance of co-operation with neighbouring States in general and of Agreements on Search and Rescue Regions in accordance with paragraph 2.1.4 of the 1979 SAR Convention, in particular. Member States were encouraged to (1) become a Party to the SAR Convention, if not already done so; (2) co-operate in search and rescue matters with neighbouring States; (3) conclude bilateral or multilateral agreements with neighbouring States on Search and Rescue Regions; and (4) notify such agreements to the Secretary-General.

Availability of SAR services worldwide

6.43 The Sub-Committee noted the information provided by Turkey (COMSAR 12/INF.7) on the implementation of Turkey's National Search and Rescue System and on the improvements including the Cospas-Sarsat System and AIS implementation, the exercises of marine environment pollution response and SAR, the capacity of Turkey's terrestrial GMDSS Systems and the number of alerts received by Turkey's RCCs.

The delegation of Turkey made a statement in response to the comments provided in documents COMSAR 12/6/10 (Cyprus) and COMSAR 12/6/11 (Greece), as set out in annex 16. In the opinion of the delegation of Turkey the statements quoted in COMSAR 12/6/11 (Greece) were incorrect and misleading. The commissioning of TRMCC service area had been processed in accordance with Cospas-Sarsat rules and procedures and the overlapping arrangement between TRMCC and ITMCC service area was clearly in accordance with longstanding Cospas-Sarsat Management Policy.

6.44 The Sub-Committee noted document COMSAR 12/6/10 (Cyprus) commenting on the information provided by Turkey in document COMSAR 12/INF.7. Cyprus stressed once again that it had never given its consent to the inclusion of the Cypriot SRR, or any part thereof, in the Turkish Mission Control Centre (TRMCC), nor had it ever agreed with the Turkish national authorities for the latter to provide Cospas-Sarsat alert or SAR data to the Cypriot Joint Rescue

Coordination Centre. Cyprus reiterated its firm position that the Cypriot SRR remained within the service area of the Italian Mission Control Centre (ITMCC) and did not accept the persistent practice of Turkey, in violation of international law, to unilaterally alter the area of competence of the Cypriot SRR.

6.45 The delegation of Cyprus regretted that it had to respond to comments contained in a paper submitted to this Sub-Committee, on an issue of political nature. Document COMSAR 12/6/10 (Cyprus) was self-explanatory and required no further introduction in detail. The Cypriot delegation drew the attention of the Sub-Committee specifically to the contents of paragraph 3 and the relevant Security Council Resolutions and concluded by stating that Cyprus's submission was for the Sub-Committee to note.

6.46 The Sub-Committee noted document COMSAR 12/6/11 (Greece), also commenting on the information provided by Turkey in document COMSAR 12/INF.7. Greece pointed out that the reference contained therein to the Service area unilaterally declared by Turkey in the context of the Cospas-Sarsat system (TRMCC service area) was misleading, given that it included large portions of the Greek maritime and aeronautical Search and Rescue Region, which coincided with the Athinai Flight Information Region (FIR) in accordance with ICAO and IMO rules and recommendations. The boundaries of the TRMCC, as presented in the annex to document COMSAR 12/INF.7, reflected political positions, were unilaterally declared by Turkey and had not received the approval of the Cospas-Sarsat Council.

6.47 The delegation of Greece made a statement in response to the comments made by Turkey on document COMSAR 12/6/11 (Greece), as set out in annex 17.

6.48 The Sub-Committee noted the information provided in document COMSAR 12/6/9 (ROPME) giving details of the Third Regional SAR Committee Meeting in ROPME Sea Area, which was held in Doha, State of Qatar, from 7 to 9 January 2008.

6.49 The delegation of the Islamic Republic of Iran, referring to the report of the Third Regional SAR Committee Meeting provided to the Sub-Committee by ROPME (COMSAR 12/6/9), advised that maritime search and rescue issues posed special importance in the ROPME Sea Area and that three workshops had been held in this regard in the Region, which had been greatly beneficial to providing SAR services. Unfortunately, the Iranian delegation had been unable to attend the Third Workshop in Qatar. It should be noted that according to the rule of procedures for approval of meeting decisions in ROPME and MEMAC, the proposals for such issues, like the one mentioned in the above ROPME document, had to be considered and approved by the ROPME Executive Committee which would have a meeting shortly. The Iranian delegation, therefore, believed that the action items included in the document COMSAR 12/6/9 (ROPME) had been provided to the Sub-Committee for information only. The issues to be finalized in this region had therefore to be appropriately approved by the ROPME Executive Committee at a future meeting.

50th Anniversary of Amver

6.50 The Sub-Committee noted the information provided by the United States (COMSAR 12/INF.8) that the year 2008 marked the 50th anniversary of Amver, the voluntary global ship reporting system for search and rescue, and outlining the future role of Amver in view of the other systems and technologies which had been or might be implemented in a way useful for SAR purposes.

6.51 The Sub-Committee, recalling the Secretary-General's opening remarks expressing heartfelt thanks to the Amver family and wished it continued success in its Golden Jubilee year.

6.52 The delegation of Japan conveyed its congratulations to Amver. The Sub-Committee noted that the Japan Coast Guard had used Amver's assistance in many cases in the past and that this had been of great help.

International Workshop on Regional Co-operation on Search and Rescue in Tokyo, Japan

6.53 The Sub-Committee noted the information provided by Japan (COMSAR 12/INF.9) giving an outline of the chairman's summary of the International Workshop on Regional Co-operation on Search and Rescue, held in Tokyo, Japan from 4 to 5 December 2007.

12th North Atlantic Maritime Rescue Coordination Centre Meeting

6.54 The Sub-Committee also noted the information provided by Ireland (COMSAR 12/INF.11) containing the report on the 12th biennial meeting of the North Atlantic Maritime Rescue Coordination Centre held in Dublin, Ireland from 22 to 26 October 2007.

Improved Methods to Detect and Locate 406 MHz Distress Beacons

6.55 The Sub-Committee considered document COMSAR 12/6/4 (United States) stating that the ability to detect and locate 406 MHz EPIRB, ELT and PLB signals would save more lives and reduce the costs of response to distress alerts and decided to refer the document to the SAR Working Group for detailed consideration.

Non-responding Rescue Coordination Centres (RCCs) and SAR Points of Contact (SPOCs)

6.56 In considering document COMSAR 12/6/5 (United States), the Sub-Committee noted that many RCCs and SPOCs had a history of not being able to respond to alerts in their SAR region sent directly to them or routed to them from other RCCs or through the Cospas-Sarsat system as part of GMDSS and decided to refer the document to the SAR Working Group for detailed consideration.

6.57 In considering concerns expressed by IMSO regarding the proposal, to urge Inmarsat to route alerts directly to RCCs responsible for the area concerned rather than only to "associated" RCCs, the Sub-Committee noted that it was not the intention to impose a new requirement on Inmarsat.

Non-Telex Distress Alert Delivery to Maritime Rescue Coordination Centres (MRCCs)

6.58 The Sub-Committee considered document COMSAR 12/6/7 (United Kingdom) stating that in order to maintain the integrity of the GMDSS it was imperative that, with the global cessation of the telex system, consideration should be given to finding an alternative method of delivering distress alerts to Maritime Rescue Coordination Centres (MRCCs). The Sub-Committee decided to refer the document to the SAR Working Group for detailed consideration.

CLIA Member Cruise Lines Contingency Planning when Operating in Areas Remote from SAR Services

6.59 The Sub-Committee noted the information provided by CLIA (document COMSAR 12/6/8) re-stating that its Member Lines supported and were committed to the contingency planning guidance approved by the Committee, at its eight-first session and outlined in MSC.1/Circ.1184. In addition, as a result of recent incidents in the Antarctic involving passenger ships, CLIA provided information on what actions it had taken to mitigate future incidents. The Sub-Committee decided to refer the document to the SAR Working Group for further consideration.

MEDICAL ASSISTANCE IN SAR SERVICES

6.60 The Sub-Committee recalled that COMSAR 11 noted that the work on the issues listed in document COMSAR 10/16, annex 15, could not be finalized and was still ongoing, in co-operation between medical experts attending the SAR Working Group. Consequently, the Sub-Committee had agreed to invite the Committee to extend the target completion date for this item to 2008 when considering its work programme under agenda item 15. Subsequently MSC 83 had extended the target completion date for this item to 2008.

6.61 The Sub-Committee noted further that once again no documents had been submitted on this issue to this session.

6.62 Since no documents had been submitted for the second time, the Sub-Committee decided to propose the deletion of this item from the Sub-Committee's work programme (paragraph 12.3.1.1.2. refers) in accordance with paragraph 3.15 of the Committee's Guidelines (MSC-MEPC.1/Circ.1).

Establishment of SAR Working Group

6.63 The Sub-Committee instructed the SAR Working Group to consider documents COMSAR 12/6, COMSAR 12/6/3, COMSAR 12/6/3/Add.1, COMSAR 12/6/4, COMSAR 12/6/5, COMSAR 12/6/7 and COMSAR 12/6/8, taking into account decisions of, and comments and proposals made in Plenary and, in particular, to:

- .1 consider document COMSAR 12/6 particularly, analysing relevant recommendations made by the Joint ICAO/IMO Working Group (JWG) and provide comments and recommendations, particularly concerning:
 - .1 the need for a fundamental review of the IAMSAR Manual;
 - .2 the development of operational guidelines for safe and effective rescue operations, taking account of previous experience;
 - .3 the development of a database system of actual SAR operations in which SOLAS ships are involved;
 - .4 possible ways to facilitate distribution to relevant RCCs of recommended SAR plans in MSC/Circ.1079, Guidelines for Preparing Plans for Co-operation Between Search and Rescue Services and Passenger Ships; and

- .5 the need for a revision of MSC.1/Circ.1184, taking into account document COMSAR 12/6/8;
- .2 consider documents COMSAR 12/6/3 and COMSAR 12/6/3/Add.1 and:
 - .1 provide comments on the activities employed during the Intermediate Phase of the project;
 - .2 provide recommendations for further development of the project; and
 - .3 consider the need to establish advisory information services and, if so, discuss how such advisory information services should be established and provide recommendations, as appropriate;
- .3 consider the List of IMO documents and publications which should be held by an MRCC and finalize the draft SAR.7/Circ.8;
- .4 consider annexes XXVIII and XXXII of document SLF 51/5, concerning the Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels and provide comments and recommendations, as appropriate;
- .5 consider document COMSAR 12/6/4 and, in particular, the need to invite the ICAO/IMO Joint Working Group to conduct a comprehensive review of text in the IAMSAR Manual regarding homing and direction finding, and provide appropriate comments and recommendations;
- .6 consider document COMSAR 12/6/5, concerning Non-responding Rescue Coordination Centres (RCCs) and SAR Points of Contact (SPOCs) and, in particular, to invite the ICAO/IMO Joint Working Group to continue consideration of this matter, and provide appropriate comments and recommendations;
- .7 consider document COMSAR 12/6/7 and, in particular, review the current practice for the delivery of distress data to MRCCs and provide appropriate comments and recommendations;
- .8 provide justification, if there is a need for extension of the target completion date of the work programme item “Harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters” to 2009;
- .9 provide justification for holding a next session of the ICAO/IMO Joint Working Group, and prepare the draft provisional agenda and also review its terms of reference, taking into account Appendix R of document COMSAR 12/6; and
- .10 prepare any recommendations or proposals for harmonization of aeronautical and maritime SAR procedures,

and report back to Plenary.

Report of the SAR Working Group

6.64 Having received and considered the report of the SAR Working Group (COMSAR 12/WP.2, section 3), the Sub-Committee approved it, in general, and took action as indicated hereunder.

6.65 The Sub-Committee considered recommendation 2 of the JWG in conjunction with document COMSAR 12/6/6 and was of the opinion that the IAMSAR Manual required extensive rationalization, editing and standardization to keep it up to date effectively and efficiently and that a fundamental review of the IAMSAR Manual was due. In this context, the Sub-Committee agreed upon general principles and a structured amendment process for the IAMSAR Manual, as set out in annex 6 and instructed the JWG to provide detailed justification, including a plan on how to conduct the review. The Sub-Committee instructed the Secretariat to inform the Committee on the outcome of the JWG on this issue and invited the Committee to endorse the decisions taken in this respect, taking into account the justification given by the JWG.

6.66 In considering recommendation 5.1.1 of JWG 14, the Sub-Committee noted that a Guide to Recovery Techniques (2007 edition) had been developed and published by the Organization and agreed that pending any proposals to enhance this guide, it would be premature to develop guidelines as recommended by the JWG. Furthermore, the Sub-Committee noted that the DE Sub-Committee was presently developing performance standards for recovery systems and it would be necessary to await their completion before undertaking any revision of the Guide developed by the Organization. In this context, the Sub-Committee recommended that the JWG should compare the information provided in the pocket guide with the information in the IAMSAR Manual and identify the gaps, if any, with a view to inclusion in the IAMSAR Manual, volume 3.

6.67 The Sub-Committee also considered recommendation 5.1.2 of JWG 14, to develop a database system of the actual SAR operations in which SOLAS ships were involved and was of the opinion that there was no need to develop a new database, bearing in mind that the World Maritime University (WMU) already had developed a SAR information platform (www.sar-info.net). Therefore, the Sub-Committee requested Member Governments to provide relevant information to WMU at sar@wmu.se.

6.68 The Sub-Committee considered JWG recommendation 6 of JWG 14 and was of the opinion that there was a need for revision of MSC.1/Circ.1184, bearing in mind that the wording in the circular related to the “concept of pairing” could lead to misinterpretation. Therefore, it was suggested to encourage Member States to submit proposals to the next session of the Sub-Committee. The Sub-Committee supported the recommendation for ICAO and IMO to encourage responsible SAR parties to organize regional meetings to discuss the problems faced by ship and aircraft traffic in the Antarctica and the Arctic areas.

6.69 In considering recommendation 7 of JWG 14 concerning the facilitation of distribution to relevant RCCs of recommended SAR plans for co-operation between search and rescue services and passenger ships (MSC/Circ.1079), the Sub-Committee agreed that a web-based information platform using existing facilities could provide a good solution. Therefore it was suggested to encourage Member States to submit proposals to the next session of the Sub-Committee.

6.70 In considering recommendation 10 and 11 of JWG 14 regarding Long Range Identification and Tracking (LRIT), it was noted that the LRIT system had provisions for LRIT information to be made immediately available free of charge to maritime and aeronautical RCCs

by Contracting Governments upon request. A list of questions on SAR-related LRIT issues and general principles which may assist SAR authorities in establishing the proper operational procedures with their LRIT providers is set out in annex 7. The Secretariat was instructed to convey the list of questions and general principles to the third session of the *Ad Hoc* LRIT Group for the preparation of an appropriate MSC circular.

6.71 The Sub-Committee noted recommendation 18.2 of JWG 14 and shared the view of the JWG that a number of newly introduced communication systems could be used beneficially for a variety of SAR communication in addition to the GMDSS, though not as means of distress alerting. Therefore, it was suggested that the issue of the development of GMDSS communication in combination with new technology should further be discussed by the NAV Sub-Committee.

6.72 In considering recommendation 18.3 of JWG 14, the Sub-Committee recommended that the national responsible authorities for the provision of SAR databases (SAR Data Provider-SDP) should include additional information regarding all ship's communication equipment used for public communication into their database, and advised shipowners to submit and update such data.

Intermediate Phase of the WMU project on SAR research related to passenger ships

6.73 The Sub-Committee considered the report on Intermediate Phase of the WMU project on SAR research related to passenger ships (COMSAR 12/6/3 and COMSAR 12/6/3/Add.1). The report dealt mainly with the workshop on SAR research organized at WMU in December 2007. During the workshop a structure for reports and other information to be hosted on the WMU SAR platform was discussed and agreed (COMSAR 12/6/3). The Sub-Committee supported the view of some participants of the WMU workshop, which expressed the need to consider additional advisory information services on SAR best practice (COMSAR 12/6/3/Add.1). WMU was requested to add additional advisory information services on SAR best practice to the WMU SAR information platform. However, it was clearly pointed out that the focus on SAR research related to passenger ships should not be abandoned.

6.74 The Sub-Committee welcomed the initiative of WMU and encouraged further development of the SAR information platform. It was therefore of utmost importance that Member States provided WMU with relevant information. In this context, the Sub-Committee considered that, before WMU started to develop activities in phases III and IV, as mentioned in document COMSAR 12/6/3, it would be advisable to collect sufficient data which should be provided by Member States.

List of IMO documents and publications which should be held by an MRCC

6.75 The Sub-Committee approved the proposed amendments to the list of IMO documents and publications which should be held by a Maritime Rescue Coordination Centre (MRCC) and instructed the Secretariat to circulate the information as SAR.7/Circ.8, as set out in annex 8, and invited the Committee to endorse this action.

Draft Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels

6.76 The Sub-Committee considered annexes XXVIII and XXXII of document SLF 51/5 containing the Safety recommendations for decked fishing vessels of less than 12 metres in length and undecked fishing vessels and agreed with the text in annex XXVIII. With regard to

annex XXXII, the Sub-Committee recommended that it needed to be updated in accordance with the amendments to the International Regulations for Preventing Collision at Sea, 1972, as given in resolution A.1004(25). Proposed changes were to delete the “Radio Telegraph Alarm” figure in annex XXXII and then amend the related text in the next page under paragraph 1, to delete reference to radio telegraphy and include reference to the GMDSS. The Sub-Committee instructed the Secretariat to carry out this task.

IAMSAR Manual regarding homing and direction finding

6.77 The Sub-Committee considered document COMSAR 12/6/4 and noted that the growing use and benefit of 406 MHz DF and implications for homing and DF, in general, required that due consideration be given to updating existing guidance documents, including the IAMSAR Manual. Therefore, it was suggested that Contracting Governments be encouraged to consider installing 406 MHz DF capability within their SAR system. In discussing the use of 406 MHz homers, Australia pointed out that from their experience with 406 homers, the 121.5 MHz homing signal from a 406 distress beacon is very useful in the final homing phase. Any amendment to the IAMSAR Manual should recognize the relevance of continuous use of the 121.5 MHz homing signal. The Sub-Committee instructed the ICAO/IMO Joint Working Group to conduct a comprehensive review of the text in the IAMSAR Manual regarding homing and direction finding, and provide appropriate comments and recommendations for COMSAR 13.

Non-responding Rescue Coordination Centres (RCCs) and SAR Points of Contact (SPOCs)

6.78 The Sub-Committee considered JWG recommendation 14 and document COMSAR 12/6/5 and agreed that the problem was serious, widespread and continuing and the recently developed Convention provisions seem not to be resolving it. Furthermore, the Sub-Committee agreed that a long-term effort should be undertaken to resolve this problem, bearing in mind that Member States have obligations for the provision of SAR services under instruments such as the SOLAS and the SAR Conventions.

6.79 The Sub-Committee noted that there were known and documented problems as regards initiating SAR action in response to Inmarsat and Cospas-Sarsat alerts. It was further noted that these systems delivered alerts successfully, but that SPOCs/RCCs did not always respond. It was recognized that the fault lay in the SAR response system, not with the delivery of alerts.

6.80 The Sub-Committee considered that the *long-term* solution was the completion of the Global SAR Plan, with fully functioning RCCs covering the globe, each staffed by fully trained personnel able to act on alerts received as outlined in the IAMSAR Manual. The Sub-Committee recalled that intensive work was ongoing in achieving this goal.

6.81 The Sub-Committee considered that in the *short term*, however, a temporary solution was required, to ensure that a SAR response would be initiated for those in distress at sea, fully considering IMO’s initiative of the regional approach of the establishment of maritime SAR services. The Sub-Committee further considered that States should understand the importance of implementing partial SAR capabilities or other arrangements until such time as full SAR capabilities could be achieved and provide relevant information on these services for updating of the IMO Global SAR Plan and GMDSS Master Plan.

6.82 The Sub-Committee recalled that Inmarsat routed alerts through the RCC associated with the relevant LES. These RCCs passed the alert to the local RCC, to coordinate the response. The Sub-Committee further recalled that Cospas-Sarsat MCCs alerted the local RCC directly.

The Sub-Committee noted that Cospas-Sarsat was considering conducting regular communications checks with RCCs/SPOCs in their service areas, asking States to identify back-up RCCs/SPOCs in case communications with the primary RCC/SPOC failed.

6.83 The Sub-Committee considered that Inmarsat and Cospas-Sarsat should be confident that they were delivering alerts to active RCCs. The Sub-Committee recalled that the routing systems already included such RCCs and that these RCCs should positively acknowledge receipt of alerts and pass the alerts to the relevant local RCC.

6.84 The Sub-Committee further recalled that it was for the associated/back-up RCCs to ensure that the local RCC had received the alert, and would act upon it and that, if no local response was received, the associated/back-up RCC should be pro-active, including, if necessary, taking on coordination of the SAR response itself. It was further considered that, in any event, the associated/back-up RCC should be ready to support the local RCC as necessary.

6.85 The Sub-Committee agreed that the Organization should:

- .1 encourage Parties to the relevant Conventions to seek co-operative solutions, in line with relevant conventions and the IAMSAR Manual where appropriate, on a regional basis;
- .2 invite Cospas-Sarsat and Inmarsat to continue to provide advice and guidance where appropriate, to assist SAR authorities to resolve outstanding issues related to SAR data transfer; and
- .3 continue its efforts to support improvements in SAR services in Africa and help use success there as a potential model for other regions.

6.86 The Sub-Committee also invited the ICAO/IMO Joint Working Group to continue consideration of this matter.

Non-Telex Distress Alert Delivery to Maritime Rescue Coordination Centres (MRCCs)

6.87 The Sub-Committee considered the information provided in document COMSAR 12/6/7 and noted that telex had been the primary method of transmitting distress data between LESs and MRCCs and that the cessation of the telex system required that an alternative method be found.

6.88 The Sub-Committee noted the information provided by the delegation of Australia that in the short term this traffic was transported using XOT (X.25 over TCP). The Austpac X.25 network would be replaced by the internet plus routers at either end performing a translation between X.25 and TCP/IP. This occurred transparently to the end hosts. In the longer term, they would use TCP/IP natively end-to-end. The choice of higher layer protocol to use over IP would need to be organized in co-operation with the LES. A straight IP solution was more easily installed and managed rather than VPN, SSH or SSL (or HTTPS).

6.89 The Sub-Committee also noted the information provided by the delegation of the United Kingdom that Inmarsat and a Land Earth Station (LES) manufacturer had coordinated closely in developing a proposed, alternative solution to be used for distress alerts and distress priority messages, based upon an IP connection from the LES to the MRCC. The solution utilized a proprietary board within the LES and a custom SMTP server located at the MRCC. Due to the use of TCP/IP, the low level connection could be formed over a variety of different

methods chosen to suit the needs of the LES/MRCC. It was further noted that Inmarsat (maritime_safety@Inmarsat.com) was able to provide further information upon request.

6.90 Taking into account the above, the Sub-Committee invited Member States to submit proposal for technical solutions for further consideration at its next session.

Harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters

6.91 The Sub-Committee fully agreed that there was a need of extension of the work programme item “Harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters” to 2009 and that justification was given by the work the JWG was tasked with at this session, and in particular the comprehensive review of text in the IAMSAR Manual regarding homing and direction finding, and the further consideration of the issue of non-responding RCCs and SPOCs. Accordingly, the Sub-Committee invited the Committee to extend the target completion date for this item to 2009 (paragraph 12.3.2.2.1 refers).

Joint ICAO/IMO Working Group

6.92 The Sub-Committee agreed to the continuation of the Joint ICAO/IMO Working Group for the next session planned to be held in Canberra, Australia from 29 September to 3 October 2008. The Sub-Committee invited the Committee to approve the revised terms of reference and provisional agenda for JWG 15, as given in annex 9, bearing in mind that MSC 83 had already approved the intersessional meeting and that the agenda also needed to be approved by ICAO. A discussion on the composition of the Joint Working Group took place under agenda item 8 (paragraphs 8.4 and 8.5 refer).

7 DEVELOPMENTS IN MARITIME RADIOCOMMUNICATION SYSTEMS AND TECHNOLOGY

XML Format for Ship Reporting Systems

7.1 The Sub-Committee recalled that COMSAR 10 had agreed, in principle, that an XML format similar to that proposed by Japan in document COMSAR 10/7 should be standardized for data exchange of ship reporting systems recognized by the Organization. It had been noted that XML format standards for maritime services were being developed within other fora, notably through projects supported by the European Union, although these standards did not necessarily include ship reporting systems. Therefore, the Sub-Committee had deemed it necessary to obtain further information and views from the European Commission and maritime agencies on document COMSAR 10/7 and the use of the XML format for consideration at its next session, with a view towards developing an MSC resolution regarding this standard.

7.2 The Sub-Committee also recalled that COMSAR 11 had considered the information provided by the European Commission (COMSAR 11/INF.5) on the use of XML formats for the submission and exchange of standard reports, notifications and requests for information as required by the European Directive 2002/59 on Vessel Traffic Monitoring and Information System and the supportive IT information and exchange system SafeSeaNet (SSN) and had recalled that NAV 52 had also agreed, in principle, that it would be appropriate to implement a standardized XML format with a view to improving safety and security.

7.3 The Sub-Committee further recalled that COMSAR 11, in light of the foregoing, had agreed that there was a need to develop a standardized XML format for maritime services and invited Member Governments and international organizations to submit details of existing message systems and proposals to COMSAR 12.

7.4 The Sub-Committee considered document COMSAR 12/7/1 (European Commission) providing information concerning the Internet website address of the European Commission which contained information, in the form of the XML Messaging Reference Guide, on the use of XML formats for the submission and exchange of standard reports, notifications and requests for information, as required by the European Directive 2002/59/EC on Vessel Traffic Monitoring and Information System and the supportive IT information and exchange system SafeSeaNet (SSN).

7.5 The Sub-Committee, noting that except for the input from the European Commission, no other Member State had provided any guidance of existing standardized XML message formats for Ship Reporting systems, decided to postpone further consideration of this issue to the next session of the Sub-Committee.

7.6 The Sub-Committee again invited Member Governments and international organizations to submit details of existing standardized XML message formats and relevant proposals for consideration at COMSAR 13. Consequently, the Sub-Committee also agreed to invite the Committee to extend the target completion date for this item to 2009, when discussing its work programme under agenda item 12 (paragraph 12.3.2.2.2 refers).

Class B AIS Safety Related Broadcast Messages Used for Distress Purposes

7.7 In considering document COMSAR 12/7 (United States), the Sub-Committee noted that some manufacturers had included distress alerts in the predefined AIS broadcast messages of Class B equipment and referred the document to the Technical Working Group.

7.8 In recognizing the need that a quick response to the specific issue raised by the United States in document COMSAR 12/7 is needed, the Sub-Committee instructed the Technical Working Group to come at least to a practical conclusion. In this regard Australia stated that guidance on this issue would be very much appreciated.

7.9 The Sub-Committee further considered that the incorporation of AIS into the GMDSS, as a means of distress alerting, would be an issue to be discussed separately.

Modernization of the GMDSS

7.10 Having briefly considered documents COMSAR 12/7/2 (United Kingdom), inviting the Sub-Committee to consider the modernization of the area concept as described in SOLAS chapter IV, and COMSAR 12/4/8 (United States) commenting on document COMSAR 12/7/2, the Sub-Committee referred the matter to the Technical Working Group for detailed consideration. The Technical Working Group discussed the issue also under agenda items 4 and 9 (paragraphs 4.26 and 4.27, 7.16 and 9.20 refer).

Terms of reference for the Technical Working Group

7.11 The Sub-Committee instructed the Technical Working Group, established under agenda item 3, to consider also documents COMSAR 12/7, COMSAR 12/7/2 and COMSAR 12/4/8,

taking into account decisions of, and comments and proposals made at Plenary and, in particular, to consider:

High-priority item:

- .1 document COMSAR 12/7 (United States) on the Class B AIS Safety Related Broadcast Messages Used for Distress Purposes and prepare comments, recommendations and a liaison statement to IALA and ITU, as appropriate; and

Low-priority items:

- .2 document COMSAR 12/7/2 (United Kingdom), taking into account document COMSAR 12/4/8 (United States) and, in particular, advise on:
 - .1 the proposal to encourage the adoption of techniques for VHF installations in the GMDSS employing modern digital technologies for which narrow band and innovative modulation techniques may be considered; and
 - .2 the increased constraints on use of the spectrum and therefore the proposal to work towards greater spectral efficiency within internationally recognized marine communications bands,

and prepare a report for consideration by Plenary.

Report of the Technical Working Group

7.12 In considering the relevant part of the Technical Working Group's report (COMSAR 12/WP.3, section 6), the Sub-Committee took action as indicated hereunder.

Class B AIS Safety Related Broadcast Messages Used for Distress Purposes

7.13 The Sub-Committee considered the information provided by the United States (COMSAR 12/7) on Class B AIS Safety Related Broadcast Messages Used for Distress Purposes and was of the view that these AIS devices should be prohibited from transmitting preconfigured distress messages.

7.14 The Sub-Committee noted that several manufacturers were producing Class B AIS equipment with functionalities that would allow indications of distress via a text message. The Sub-Committee considered that while there was some sympathy with the notion that such use for initiating distress alerts could be accommodated as an adjunct to the GMDSS, there was concern that there had been no consideration of how, if at all, this functionality could be included in or its impact on the GMDSS. In this context, the Sub-Committee noted several concerns, including, but not limited to, that:

- .1 AIS text messaging was not part of the GMDSS;
- .2 there was no related alerting or SAR infrastructure;
- .3 there were no shore-based receivers;
- .4 the equipment itself could be turned off even remotely;

- .5 the equipment provided no facility for automatic repeat of an alert;
- .6 there were no defined training requirements; and
- .7 no prioritization of messaging was available.

7.15 The Sub-Committee agreed that as such it could not be considered to be a part of the GMDSS at the present time, however, the role of the text message facility could be employed within e-navigation and could find a role in SAR.

7.16 The Sub-Committee, noting the above, concluded that it was crucial to assess the compatibility with the GMDSS and that this should therefore be a proposal for future work, if considered appropriate, to add AIS distress alerting as a component to the GMDSS and as a part of the wide ranging review of the GMDSS.

7.17 The Sub-Committee also agreed that there would be a need to issue a circular to mariners describing the limitations of using predefined distress text messages in distress situations and invited Member Governments and international organizations to submit proposals to COMSAR 13.

7.18 In light of the foregoing, the Sub-Committee was of the view that AIS devices should be prohibited from transmitting preconfigured distress messages and, accordingly, approved a liaison statement to IALA, CIRM, IEC and ITU on AIS safety-related broadcast messages used for distress purposes, requesting that distress messages should not be preconfigured, as set out in annex 10. The Sub-Committee instructed the Secretariat to convey it to IALA, CIRM, IEC and ITU and invited the Committee to endorse this action.

8 REVISION OF THE IAMSAR MANUAL

8.1 The Sub-Committee noted that, in accordance with the procedures prescribed in the Annex to resolution A.894(21), and being advised that ICAO had already approved the proposed draft amendments to the IAMSAR Manual, MSC 83 had adopted them for dissemination by means of MSC.1/Circ.1249, and decided that the adopted amendments should enter into force on 1 June 2008.

8.2 The Sub-Committee briefly discussed the report of JWG 14 (COMSAR 12/6, sections 3, 4 and 7 and appendices D, G, H, K, L, O, P and Q) and instructed the SAR Working Group to consider them in detail and prepare:

- .1 draft proposed amendments to the IAMSAR Manual recommending a date of their application;
- .2 a draft MSC circular on Adoption of amendments to the IAMSAR Manual; and
- .3 relevant comments and proposals, for consideration at Plenary.

8.3 The Sub-Committee noted that ICAO had advised IMO formally in November 2007 of ICAO's concurrence to the inclusion of the proposed amendments mentioned in paragraph 8.2, in the IAMSAR Manual.

8.4 The delegation of South Africa was of the opinion that there was a need to review the Terms of Reference and composition of the Joint Working Group. This was necessary to ensure greater participation by experts from various countries and to ensure that the views of all countries were taken into account.

8.5 The Secretariat explained that this issue had also been discussed at previous sessions of the Sub-Committee. The Sub-Committee recalled in this regard that with respect to the composition of the JWG, COMSAR 4 had noted that, according to the rules of ICAO, a study group of experts would usually consist of approximately 5 to 6 experts with high expertise/experience and no additional observers were invited to sessions of such groups. The number of eight members each from IMO and ICAO had already exceeded that usual practice and should not be increased. However, noting that observers from IMO Member Governments had been invited to previous sessions of the JWG and recognizing the danger of losing the required continuity in expertise and experience in case a rotating membership system was introduced, the Sub-Committee at that stage had agreed to keep the composition of the JWG as it was. Participation of maritime observers should, however, be encouraged and their active participation in, and comments and proposals to, sessions of the JWG should be facilitated, which was today common practice. Coordination meetings before JWG sessions could also be held. The Sub-Committee decided to refer this issue for consideration by the SAR Working Group, when considering the Terms of Reference of the JWG, so as to make a suitable recommendation to the Committee, if considered appropriate.

Report of the SAR Working Group

8.6 In considering the relevant part of the SAR Working Group's report (COMSAR 12/WP.2, section 4, annex 5), the Sub-Committee approved the draft MSC circular on Adoption of amendments to the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, set out in annex 11, for submission to MSC 85 for adoption with an entry into force date of [1 June 2009].

9 REPLACEMENTS FOR USE OF NBDP (RADIO TELEX) FOR MARITIME DISTRESS AND SAFETY COMMUNICATIONS IN MARITIME MF/HF BANDS

9.1 The Sub-Committee recalled that COMSAR 9 had concluded that:

- .1 there was no need to retain Narrow-band direct printing (NBDP) for the original reason, i.e. to overcome language difficulties;
- .2 an HF system able to transmit data from shore to ship was necessary for dissemination of MSI in sea areas A4;
- .3 there was a need for an HF general communication system to able to transmit data for transmission of observations and position reports from ships in sea areas A4;
- .4 NBDP carriage requirements in sea areas A3 could be deleted provided that a suitable transition period was used and that current installations were not immediately invalidated by the deletion;
- .5 due to the more robust propagation of NBDP compared to voice, NBDP could not immediately be discontinued in sea areas A4 as a distress follow-up communications;

- .6 the development of new technology for systems able to transmit data in the MF/HF bands was supported; and
- .7 it was acceptable that this new technology would make use of the frequencies currently being used for NBDP (for the time being excluding the dedicated distress communications frequencies).

9.2 The Sub-Committee also recalled that MSC 81 had decided to include in the Sub-Committee's work programme and the provisional agenda for COMSAR 11, a low-priority item on "Replacements for use of NBDP (radio telex) for maritime distress and safety communications in the maritime MF/HF bands", with a target completion date of 2008.

9.3 The Sub-Committee noted that in December 2007 ITU brought to the attention of IMO the new Recommendation ITU-M.1798 – Characteristics of HF radio equipment for the exchange of digital data and electronic mail in the maritime mobile service.

9.4 The Sub-Committee recalled that the draft of the new Recommendation ITU-M.1798 was brought to the attention of COMSAR 11, which had agreed that, while there might be a need to develop Performance Standards as an equivalent of HF-NBDP used in the GMDSS, it would be premature to do so before the new ITU-R recommendation came into force. COMSAR 11 had invited Member Governments and international organizations to consider the proposal by the United States (COMSAR 11/12/1) and submit relevant comments and proposals to COMSAR 12.

9.5 The Sub-Committee also recalled that COMSAR 11 had prepared the preliminary text of the draft MSC circular on Guidance on ceasing requirements for NBDP radio telex installations on board certain ships sailing in A3 sea areas (COMSAR 11/18, annex 17). In this context, the Sub-Committee had invited Member Governments and international organizations to submit relevant comments with a view to finalization at COMSAR 12.

9.6 The Sub-Committee further recalled that with regard to a possible replacement technology for radio telex transmissions of MSI used by some countries, COMSAR 11 had considered the:

- .1 means of transforming these transmissions to NAVTEX-type transmission so that they could be received on board ships by a NAVTEX-type receiver covering HF frequencies;
- .2 consequences of possible near-future acceptance of one or more polar orbiting satellites communication system to be part of the GMDSS and capable of offering broadcast of MSI in accordance with resolution A.888(21), recently revoked by Assembly resolution A.1001(25) adopted on 29 November 2007; and
- .3 possibility of other new technology capable of and appropriate for broadcasting of MSI on HF to ships sailing in A4 sea areas,

and invited Member Governments and international organizations to submit proposals to COMSAR 12.

9.7 Having considered document COMSAR 12/9 (Denmark), containing a proposal to delete the requirements in SOLAS chapter IV, regulation 10.2.1.3 for NBDP in sea area A3 and describing the need to replace NBDP in sea area A4 with a HF data communication service and

in that respect the need to develop an IMO performance standard for such equipment, the Sub-Committee referred this document to the Technical Working Group.

9.8 Having further considered document COMSAR 12/9/1 (United States), proposing a draft Performance standard based upon ITU-R Recommendation M.1798 as an equivalent for HF narrowband direct printing used in the GMDSS for sea area A4, and a draft Assembly resolution concerning criteria for the provision of radiocommunication data services in the medium frequency/high frequency (MF/HF) bands for the GMDSS, the Sub-Committee referred this document to the Technical Working Group.

9.9 The Sub-Committee considered document COMSAR 12/9/2 (United States), proposing that the deletion of the NBDP carriage requirements in sea areas A3 should not simply be removed from the requirements of SOLAS chapter IV without some equivalent functional replacement and referred this document to the Technical Working Group.

9.10 The Sub-Committee further considered document COMSAR 12/9/3 (Japan), containing the consideration of distress follow-up communications and a proposal for the conditions when introducing the new HF data and e-mail system into the GMDSS and referred this document to the Technical Working Group.

9.11 After discussion regarding the principle of the matter under consideration, the Technical Working Group was instructed to take into account the majority view expressed that the deletion of the requirements for NBDP in SOLAS chapter IV, regulation 10.2.1.3 was not supported until a suitable replacement was identified and that there was a need for a transition period during which both technologies could be used.

Terms of reference for the Technical Working Group

9.12 The Sub-Committee instructed the Technical Working Group, established under agenda item 3, to consider also documents COMSAR 12/9, COMSAR 12/9/1, COMSAR 12/9/2 and COMSAR 12/9/3, taking into account decisions of, and comments and proposals made in Plenary, and, in particular, to consider the need for:

- .1 the deletion of the requirements in SOLAS chapter IV, regulation 10.2.1.3 for NBDP in sea area A3, as proposed in document COMSAR 12/9, taking into account documents COMSAR 12/9/2 and COMSAR 12/9/3 and if so, prepare a draft MSC resolution on the adoption of amendments to SOLAS chapter IV;
- .2 new or revised Performance Standards as an equivalent of HF-NBDP used in the GMDSS as proposed in document COMSAR 12/9/1, taking into account documents COMSAR 12/9 and COMSAR 12/9/3 and if so, finalize a draft MSC resolution containing the new/revised Performance Standards;
- .3 a draft Assembly resolution on criteria for the provision of radiocommunication data services in the medium frequency/high frequency (MF/HF) bands for the GMDSS, as proposed in document COMSAR 12/9/1 and if so, finalize such a draft Assembly resolution; and
- .4 a draft MSC circular on Guidance on ceasing requirements for NBDP radio telex installations on board certain ships sailing in A3 sea areas (COMSAR 11/18, paragraph 12.12 and annex 17) and, if so, finalize such a draft MSC circular,

and report back to Plenary.

Report of the Technical Working Group

9.13 In considering the relevant part of the Technical Working Group's report (COMSAR 12/WP.3, section 7), the Sub-Committee took action as indicated hereunder.

Deletion of requirements in SOLAS chapter IV, regulation 10.2.1.3 for NBDP in sea area A3

9.14 The Sub-Committee considered the proposals by Denmark (COMSAR 12/9), the United States (COMSAR 12/9/2) and Japan (COMSAR 12/9/3) concerning the maintenance of the carriage requirements for HF NBDP in sea areas A3 and A4, and on replacement of NBDP by digital data exchange systems and recalled that COMSAR 9 had considered the decreasing use of radio telex and to which extent one or more other technologies would be needed as replacement for the current use of radio telex.

9.15 The Sub-Committee recalled that COMSAR 11 had agreed that, while there might be a need to develop Performance Standards as an equivalent to HF-NBDP used in the GMDSS, it would be premature to do so before the new ITU-R recommendation came into force or before MSC had issued guidance on ceasing the requirement for NBDP radio telex installations on board certain ships sailing in A3 sea areas.

9.16 Contrary to proposals to cease the NBDP carriage requirements in sea area A3 at the present time, the Sub-Committee confirmed that an HF communication requirement would remain necessary in sea area A3, particularly in the large ocean expanses of the southern hemisphere. The present NBDP carriage requirements in sea areas A3 could not simply be removed from the requirements of SOLAS chapter IV without some equivalent functional replacement for duplicating long-range communications.

9.17 The Sub-Committee acknowledged that an HF communication requirement would be essential in sea area A4 until such time as appropriate satellite coverage over polar areas was implemented.

9.18 The Sub-Committee drew a distinction between the steps necessary to replace the functional requirements of the GMDSS in respect of distress communications and the promulgation of MSI and replacement of the general communications functional requirement.

9.19 In this context, the Sub-Committee noted the discussions in the group (paragraphs 7.6 to 7.9 of document COMSAR 12/WP.3) and agreed that there was no compelling need to replace NBDP and DSC at HF for the functional requirements of distress communications and the promulgation of MSI. Accordingly, the Sub-Committee invited the Committee to delete this item from its work programme (paragraph 12.3.1.1.5 refers).

9.20 However, the Sub-Committee recognized that the issue of replacing all NBDP and DSC functionality was also an issue under MF/HF Radio systems and technology and these factors and its replacement should be considered in the context of a comprehensive review of performance and development of the GMDSS. In this context, Administrations should consider submitting to the Committee proposals to establish a new work programme item relating to the review of functions, elements and procedures of the GMDSS.

9.21 The Sub-Committee noted a statement by Norway that, to their knowledge, NBDP had seldom or never been used for distress and safety purposes. After the activation of a distress alert on MF/HF DSC, the distress and safety communication would be established on a MF/HF radiotelephony frequency, unless the ship and the coast radio station agreed to use NBDP, which nearly never happened. The NBDP might therefore be removed from SOLAS chapter IV as a requirement for distress and safety purposes in sea area A3, without seeking replacement. Alternatively NBDP might be downgraded to a non-distress and safety requirement. Norway further stated that it became more and more difficult to find spare parts for the maintenance of the equipment. Malfunction of equipment for distress and safety purposes might cause a ship to be considered un-seaworthy and retained. If NBDP spare parts were not available the ship might not be permitted to depart unless the flag State issues an exemption from that particular requirement.

10 GUIDELINES FOR UNIFORM OPERATING LIMITATIONS OF HIGH-SPEED CRAFT

10.1 The Sub-Committee recalled that MSC 81, had endorsed a proposal by DE 49 and decided to include, in the DE Sub-Committee's work programme and the provisional agenda for DE 50, a high-priority item on "Guidelines for uniform operating limitations of high-speed craft", with a target completion date of 2009, and also in the work programmes of the COMSAR, NAV and SLF Sub-Committees and the provisional agendas for COMSAR 11, NAV 53 and SLF 50, with a target completion date of 2008.

10.2 The Sub-Committee further recalled that COMSAR 11, since no substantive documents had been submitted on this issue, had decided to postpone further consideration of this item to its next session when the outcome of DE 50 would also be available for the benefit of COMSAR 12.

10.3 The Sub-Committee also recalled that COMSAR 11 had invited Members to submit relevant comments and suitable proposals for consideration at COMSAR 12.

10.4 The Sub-Committee considered document COMSAR 12/10 (Secretariat), reporting on the outcome of DE 50 and DE 51 with regard to the development of Guidelines for uniform operating limitations of high-speed craft and referred consideration of this document to the SAR Working Group.

Terms of reference for the SAR Working Group

10.5 The Sub-Committee instructed the SAR Working Group, established under agenda item 6, to consider the draft Guidelines for uniform operating limitations of high-speed craft and, in particular, the issue of "available rescue and operational support resources" and finalize the draft text of section 3, as given in the annex to document COMSAR 12/10, for consideration at Plenary.

Report of the SAR Working Group

10.6 In considering the relevant part of the SAR Working Group's report (COMSAR 12/WP.2, paragraph 5.1), the Sub-Committee took action as indicated hereunder.

10.7 The Sub-Committee concurred with the text as given in the annex of COMSAR 12/10. However, the Sub-Committee also suggested that the wording in the last sentence of paragraph 3.5 of the draft guidelines should be formulated more positively, bearing in mind that

trial evacuation or rescue exercises were highly beneficial to identify gaps and weaknesses and to improve overall performance.

10.8 The Secretariat was instructed to inform DE 52 accordingly and the Committee was invited to delete the item "Guidelines for uniform operating limitations of high-speed craft" from the Sub-Committee's work programme, as the work on this item had been completed (paragraph 12.3.1.1.3).

11 DEVELOPMENT OF AN E-NAVIGATION STRATEGY

11.1 The Sub-Committee recalled that COMSAR 11 had:

- .1 agreed that the user requirements should be clearly defined by the NAV Sub-Committee before the Sub-Committee could review the technical improvements that might be required if GMDSS equipment was to be utilized as a data communication network for e-navigation; the development of e-navigation should be user-driven and not technology driven; there should be equipment performance standardization, including a standard mode of operation for shipboard equipment, and the software installed in operating systems should follow a formal change control process to ensure that all elements of the e-navigation system would operate efficiently;
- .2 also agreed that with respect to the potential components of the e-navigation strategy and proposed system architecture, issues connected with search and rescue, data communication links, and operation of the GMDSS were within its remit; and
- .3 further agreed that existing GMDSS infrastructure supported SAR services and communications; however, with respect to e-navigation, broadband communication on a global basis using satellite technology would be necessary.

11.2 The Sub-Committee noted that NAV 53:

- .1 was of the view that the support for the proposed e-navigation strategy should be based on user requirements rather than a system architecture based on possible operational and technological developments. The NAV Sub-Committee had further concluded that it could only undertake a gap analysis after the user requirements had been identified, as not to risk negating and constraining the work yet to be done thereon by the Organization;
- .2 had agreed with COMSAR 11 that the e-navigation strategy should be user, rather than technology driven and was of the view that it was first necessary to identify and define the user requirements before considering any technology standards. The NAV Sub-Committee had also agreed that it was necessary to determine the present limits of the e-navigation strategy, recognizing that this strategy had to be updated as and when necessary, before embarking on the development of the system architecture;
- .3 had provisionally finalized the following definition for e-navigation as a concept based on harmonization of marine navigation system and supporting shore services driven by users' needs:

“E-navigation is the harmonized collection, integration, exchange, presentation and analysis of maritime information on board and ashore by electronic means to enhance berth to berth navigation and related services, for safety and security at sea and protection of the marine environment.”

- .4 after discussing the core objectives of e-navigation, the key outcomes of e-navigation, the system architecture, the user requirements, the preliminary gap analysis, the identification of essential functions of e-navigation by marine accidents analysis, the redundancy of position fixing systems, the introduction and use of AIS and as Aid to Navigation (AtoN), and the migration from traditional aids to navigation (AtoN) to virtual e-navigation aids, the NAV Sub-Committee had, to progress the work for NAV 54, re-established the intersessional Correspondence Group under the coordination of the United Kingdom; and
- .5 had instructed the Correspondence Group to submit a document to COMSAR 12, raising specific questions that should be addressed by COMSAR.

11.3 The Sub-Committee observed that MSC 83 had noted that, with respect to the development of an e-navigation strategy, issues connected with search and rescue, data communication links and operation of the GMDSS were within the Sub-Committee’s remit.

11.4 The Sub-Committee considered document COMSAR 12/11, submitted by the Coordinator of the intersessional Correspondence Group re-established by NAV 53, summarizing the progress made by the Correspondence Group in identifying the main requirements of the e-navigation maritime users and containing five questions to be considered by the Sub-Committee.

11.5 Following a brief debate, the Sub-Committee agreed that there were different levels of user needs for e-navigation. The high level user needs should first be identified, which should then lead to the lower level user interface. It was also imperative to recognize that the ship user needs needed to be given first priority. The Sub-Committee referred the document to the e-navigation strategy working group for detailed consideration.

11.6 The Sub-Committee noted the information provided by the Republic of Korea in document COMSAR 12/11/1. A number of delegations supported the analysis of the statistics of the distress alerts received by the Republic of Korea Rescue Coordinating Centre (RCC) for the years 2004 to 2006, and were of the opinion that document COMSAR 12/11/1 should also be considered by the Working Group with respect to communication and information systems to be developed for e-navigation. The Sub-Committee agreed with this and decided to refer the document to the e-navigation strategy working group for consideration.

Establishment of e-navigation strategy working group

11.7 The Sub-Committee instructed the e-navigation strategy working group, taking into account decisions of, and comments and proposals made in, Plenary and to:

- .1 consider document COMSAR 12/11 and provide comments and recommendations, as appropriate, in particular, regarding the following questions:
 - .1 what existing international regulations and standards are relevant to the high-level communications related user needs identified for e-navigation;

- .2 of the existing international regulations and standards identified in .1, which would need to be addressed, or further developed, to provide a harmonized resilient system which offers high integrity for communications and data provision to satisfy the e-navigation user needs;
 - .3 what are the existing technical constraints and limitations, in terms of bandwidth, frequency and power consumption, which will need to be addressed to overcome any identified gaps to achieve the e-navigation user needs;
 - .4 how should communications and information systems be developed and coordinated internationally and within technical standards for data structure, technology, bandwidth and frequency allocations – including the steps that need to be taken; and
 - .5 what are the potential regulatory and technical problems that will need to be overcome considering that e-navigation is to be scalable across small and large vessels alike;
- .2 in developing the relevant comments and recommendations, give due consideration to the fact that there are different levels of user needs for e-navigation; the high level user needs should first be identified, which should then lead to the lower level user interface;
 - .3 consider document COMSAR 12/11/1 and discuss the issues raised with regard to false alerts and their relation to communication and information systems to be developed for e-navigation; and
 - .4 submit its report to Plenary for consideration on Thursday, 10 April 2008.

Report of the e-navigation strategy working group

11.8 Having received and considered the report of the e-navigation strategy working group (COMSAR 12/WP.4), the Sub-Committee approved it, in general, and took action as indicated hereunder.

11.9 The Sub-Committee noted that the Working Group had considered the report of the Correspondence Group (COMSAR 12/11), coordinated by the United Kingdom and agreed that for e-navigation purposes, the COMSAR Sub-Committee should consider the implications of developing a common information data source, delivering resilient communications, data provision and integrity, based on the requirements and the general conclusions from the preliminary user needs analysis.

11.10 The Sub-Committee also noted that the Correspondence Group had identified that the following high level user needs should be addressed as a minimum:

- .1 **Common Maritime Information Data Structure:** Mariners expressed a clear need for all maritime information pertaining to the planning and execution of voyages, the assessment of risk, and compliance with regulation to be accessible from a single integrated system. Furthermore, shore users expressed a clear need for all information pertaining to their maritime domain, vessels and their voyages, to be contained in an internationally agreed common maritime information data

structure. Such a data structure was also seen as an essential requirement for the sharing of information between shore authorities on an international basis.

- .2 **Automated and Standardized Reporting Functions:** A clear need was expressed for e-navigation to provide more automated and standardized reporting functions. There was a clear need for increased communication of ship and voyage information to shore, and for safety-related information to be sent from shore to all maritime users. These reporting requirements had proved to be highly distracting to all users, and should be automated or pre-prepared as much as possible both in terms of format, content and communications technology. The Group recognized that security, legal and commercial issues would have to be addressed.
- .3 **Human Centred Presentation Needs:** All users expressed a clear need for navigation displays to be designed to clearly indicate risk and to optimize support for decision making by both mariners and shore-based users. Strong support was given to an integrated “alert management system” such as contained in the revised IMO Integrated Navigation System (INS) performance standards (resolution MSC.252(83)) (alerts being structured as alarms, warnings and cautions). Further consideration should be given to the use of a decision support system that offered suggested reactions to certain alerts, and the integration of navigation alerts on board ships within a whole ship alert management system. There was a need among mariners for standardized presentation and operation functionality to enhance the effectiveness of internationally standardized training, certification and familiarization. The concept of S-Mode was supported for the ship. Shore users expressed a clear need for their displays to be fully flexible supporting both a Common Operating Picture (COP) and a User Defined Operating Picture (UDOP). Strong support was given for the use of Geographical Information Systems (GIS) and for layered and/or tabulated displays.
- .4 **Effective and Robust Ship and Shore communications:** A clear need was expressed for there to be an effective and robust means of communications for ship and shore users. Relevant shore authorities needed an effective means of communicating with vessels to provide safety and operational information with an automated communications selection system. Communication with vessels and between vessels should be effective, make best use of audio/visual aids and standard phrases, minimize linguistic challenges and distraction to operations.
- .5 **Human Machine Interface:** e-navigation systems must be designed to engage and motivate the user while managing workload. It was clear that as electronic systems take on a greater role, facilities should be developed for the capture and presentation of non-electronic data such as visual observations and user knowledge and experience. The presentation of information for all users should be designed to reduce “single person errors” and enhance team operations. On board ship this included the entire navigation watch, including the lookout, as well as the Master and, when one was aboard, the pilot. There was a clear need for good ergonomics both in the physical layout of equipment and in the use of light, colours, symbology and language.
- .6 **Data and System Integrity:** A clear user need was expressed for e-navigation systems to be resilient and to take into account issues of data validity, plausibility and integrity, and for the systems to be robust, reliable and dependable.

Requirements for redundancy, particularly in relation to position fixing systems, should be considered.

- .7 **Analysis:** There was a clear need for an effective use of analysis functions within e-navigation to improve performance and prevent single person error. Shipboard systems should include analysis functions that support the user in complying with regulations; identifying risks, and avoiding collisions and groundings including the calculation of real-time under keel clearance (UKC) and air drafts. Shore-based systems should support environmental impact analysis, operational planning, hazard/risk assessment, reporting indicators and prevention. Consideration should also be given to the use of analysis for activities including: response recovery, risk assessment and planning, detection and prevention, mitigation, preparedness, resource management and communication. E-navigation analysis should be designed to complement users' capabilities while compensating for any limitations.

11.11 The Sub-Committee further noted that the Correspondence Group had identified that there was a clear user requirement for a common maritime information data structure, effective and robust ship and shore communications and data and system integrity – all of which fell within the COMSAR Sub-Committee's sphere of expertise.

11.12 The Sub-Committee agreed with the views of the working group that the needs of seafarers were central in the development of the e-navigation strategy. However, authorities also had valid security, environmental, and search and rescue responsibilities. It was noted that IALA had initially established separate ship and shore committees as it began its consideration of e-navigation, but quickly found that they needed to be merged into a single ship/shore Operations and Strategy working group. Ship and shore needs needed to be treated as a whole. Some saw e-navigation as a way to increase shore control over shipping. This should not be implied in the consideration of the needs of the shore component. The need for ships to keep appropriate autonomous control were to be maintained.

11.13 The Sub-Committee noted that the work the working group had been asked to undertake in examining the technical aspects of communications supporting e-navigation was the next level down. Therefore, the Sub-Committee recognized that, although it was appropriate to start this work now, the e-navigation strategy was still not complete, so this work had to be considered as preliminary and would have to be revisited at a later date.

11.14 The Sub-Committee also noted that before considering the questions in its Terms of Reference, the working group had made some basic assumptions, namely:

- .1 it should concern itself with data communications; voice communications would also form a part of e-navigation, but the present emphasis was primarily on data transfer;
- .2 there would be different requirements for data availability depending upon the nature of the information being transmitted. For instance, information that was time and safety critical needed to be transmitted and received by the affected users quickly and reliably, whilst less time critical information would have a lower priority;
- .3 the ship would receive a lot of information and it was important for the crew to be able to manage this data effectively;

- .4 e-navigation should not be seen as limited to safety and security at sea and protection of the marine environment functions only, as efficiency was an important potential benefit for ships and their crews; and
- .5 data communications via satellite, as well as over terrestrial links, e.g., MF, HF, and VHF would be used.

11.15 The Sub-Committee further noted that Singapore had now instituted a WiMax wireless server system covering the port and adjacent waters. A ship in port could receive e-navigation information through a wire. It was observed that expansion of bandwidth needs in the future should be expected. Therefore a wide variety of communications links could be foreseen, and that it was too early to exclude any possibility.

11.16 Based on the findings of the Correspondence Group and including the assumptions made, the Sub-Committee with respect to the five questions outlined in paragraphs 18.1 to 18.5 of the report of the Correspondence Group (COMSAR 12/11) agreed the following recommendations and guidance, as appropriate.

Existing international regulations and standards relevant to the high level communications

11.17 The Sub-Committee, with respect to existing international regulations and standards relevant to the high level communications, agreed that the user needs, as identified in SOLAS regulation IV/4, were the following data functions:

- .1 transmitting ship-to-shore distress alerts;
- .2 receiving shore-to-ship distress alerts;
- .3 transmitting and receiving ship-to-ship distress alerts;
- .4 transmitting and receiving search and rescue coordinating communications;
- .5 transmitting and receiving on-scene communications;
- .6 transmitting and receiving signals for locating;
- .7 transmitting and receiving maritime safety information;
- .8 transmitting and receiving general radiocommunications to and from shore-based radio systems or networks; and
- .9 transmitting and receiving bridge-to-bridge communications,

as given in annex 12.

11.18 The Sub-Committee also noted that the user needs other than the GMDSS functional requirements and related equipment did not fall within its remit, however, it decided to additionally consider AIS, LRIT and SSAS equipment, as specified in SOLAS regulations V/19, V/19-1 and XI-2/6 respectively. Additional user needs might be included at a later occasion as the development of e-navigation was an ongoing process.

Existing international regulations and standards identified which would need to be addressed, or further developed, to provide a harmonized resilient system

11.19 The Sub-Committee endorsed a list providing an overview of all related equipment, performance standards and test standards given in annex 13. Some standards in annex 13 were not mandatory according to SOLAS chapter IV.

11.20 The Sub-Committee noted that the working group was unable to identify which existing regulations and standards would need to be further developed or revised because the e-navigation system was still at an early stage of development.

Existing technical constraints and limitations, in terms of bandwidth, frequency and power consumption

11.21 The Sub-Committee endorsed the opinion of the working group e-navigation should not be limited to communications using existing equipment, but the first phase should be to make better use of existing technology. Other technologies could come later. It had to be recognized that there were limitations on spectrum availability and that other types of technology might have to be used. It might also be necessary to pay for data communications. E-navigation was an evolving concept. When the needs were better understood, an evaluation would have to be made such as a gap analysis. It was also recognized that the current systems were not adequate for video and other types of high rate data. Inmarsat standard C had a data rate of 600 bps. There was no mandated requirement for a higher data rate but other satellite systems were available and could possibly be used for transfer of e-navigation data.

How should communications and information systems be developed and coordinated internationally and within technical standards for data structure, technology, bandwidth and frequency allocations

11.22 The Sub-Committee agreed that there was a need to have a common data structure and management so that the information would be available on board and could be used by different systems without the need to have to continually re-enter data. This would reduce the administrative load on ships crew as various reporting requirements could be extracted through filters automatically.

Potential regulatory and technical problems that will need to be overcome considering that e-navigation is to be scaleable across small and large vessels alike

11.23 The Sub-Committee was of the opinion that the question of e-navigation being scaleable across small and large vessels alike was of relevance when small vessels and SOLAS ships needed to access e-navigation data. National maritime administrations would need to include smaller vessels in the e-navigation system. However, small vessels might have other means in addition to mandatory communications equipment such as VHF, of obtaining e-navigation information such as mobile phones. Smaller vessels might also have power limitations and smaller presentation displays. In addition, the level of training might not be of the same standard as for SOLAS ships.

Measures to reduce the number of false distress alerts

11.24 The Sub-Committee was of the view that the high rate of false alerts could be due to crew not being familiar with the operation of DSC devices, not following IMO guidelines and procedures or usage issues, i.e. the question of human machine interface problems.

11.25 Some delegations were of the view that the false alerts were occurring only in the GMDSS system and were an unintended consequence. The e-navigation concept was still being developed but the possibility of similar unintended consequences need to be borne in mind. Other delegations were of the view that the matter of false alerts was a matter of concern and IMO had to take some action on this issue.

11.26 Other delegations agreed with the views of the Republic of Korea that in order to reduce the occurrence of false distress alerts a unified written operating procedure and method in initiating distress alert had to be in place, a unified set of specifications for distress alert buttons should be provided to avoid confusion among users and a unified, effective and safe test function should be provided on the equipment.

11.27 The delegation of the Republic of Korea stated that presently it intended to put forward a proposal for a new work programme item to the eighty-fifth session of the Maritime Safety Committee regarding this issue.

11.28 The Sub-Committee agreed that the false alert problem touched on almost every subject of concern to the Sub-Committee, including GMDSS, and Search and Rescue procedures. Because of the early and preliminary nature of development of the e-navigation strategy, there was no way to develop a solution at this time from an e-navigation perspective. It did, however, demonstrate the importance of standardization, clear procedures and effective training (MSC/Circ.1091) in the development of e-navigation.

11.29 The Sub-Committee instructed the Secretariat to inform NAV 54 on the progress made on the development of an e-navigation strategy and the Committee was invited to delete the item "Development of an e-navigation strategy" from the Sub-Committee's work programme, as the work on this item had been completed (paragraph 12.3.1.1.4 refers).

12 WORK PROGRAMME AND AGENDA FOR COMSAR 13

12.1 The Sub-Committee recalled that at MSC 78, the Chairman, in addressing the Committee's method of work relating to the consideration of proposals for new work programme items, had clarified that the objective of the Committee when discussing these proposals was to decide, based upon justification provided by Member Governments in accordance with the Guidelines on the organization and method of work, whether the new item should or should not be included in the Sub-Committee's work programme. A decision to include a new item in a Sub-Committee's work programme did not mean that the Committee agreed with the technical aspects of the proposal. If it was decided to include the item in a Sub-Committee's work programme, detailed consideration of the technical aspects of the proposal and the development of appropriate requirements and recommendations should be left to the Sub-Committee concerned.

12.2 The Sub-Committee noted that MSC 83 had agreed to include, in the COMSAR Sub-Committee's work programme a high priority item on "Development of procedures for updating shipborne navigation and communication equipment", with two sessions needed to complete the item, and had assigned the NAV Sub-Committee as a coordinator.

12.3 Taking into account the progress made during the session and the provisions of the agenda management procedure contained in paragraphs 3.11 to 3.23 of the Guidelines on the organization and method of work (MSC-MEPC.1/Circ.1), the Sub-Committee reviewed its work programme and agenda for its next session (COMSAR 12/WP.1) and prepared proposed

revisions thereof for COMSAR 13. While doing so, the Sub-Committee agreed to invite the Committee to:

- .1 delete the following work programme items, as work on them has been completed:
 - .1.1 item 1.2 - exemptions from radio requirements;
 - .1.2 item 6.4 - Medical assistance in SAR services;
 - .1.3 item H.2 - Guidelines for uniform operating limitations of high-speed craft;
 - .1.4 item H.3 - Development of an e-navigation strategy;
 - .1.5 item L.1 - Replacements for use of NBDP (radio telex) for maritime distress and safety communications in maritime MF/HF bands;
- .2 extend the target completion dates of the following work programme items:
 - .2.1 item 6.1 - Harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters, to 2009; and
 - .2.2 item H.1 - Developments in maritime radiocommunication systems and technology, to 2009.

12.4 With respect to the proposed deletion of the continuous work programme item 1.2 on exemptions from radio requirements, the Sub-Committee considered it was not longer necessary to keep this item on its work programme, taking into account that no submissions had been received since COMSAR 4.

12.5 The Committee was also invited to approve the proposed revised work programme of the Sub-Committee and provisional agenda for COMSAR 13, as set out in annex 15.

High-level Action Plan of the Organization and priorities for the 2008-2009 biennium

12.6 The Sub-Committee noted the information on the status of the planned outputs of the Sub-Committee's work programme and provisional agenda for COMSAR 13 related to the High-level Action Plan of the Organization and priorities for the 2008-2009 biennium (COMSAR 12/WP.1, annex 3).

12.7 The Sub-Committee noted that with respect to work programme items H.1 – Developments in maritime radiocommunication systems and technology and H 4 – Development of procedures for updating shipborne navigation and communication equipment, there was no mention of these two items in the High-level Action Plan of the Organization and priorities for the 2008-2009 biennium. The Secretariat was requested to take the necessary follow-up action to ensure that these two work programme items were brought to the attention of the *Ad Hoc* Council Working Group on the Organization's Strategic Plan for inclusion in the High-level Action Plan of the Organization.

Arrangements for the next session

12.8 The Sub-Committee anticipated that Working Groups on the following subjects might be established at COMSAR 13:

- .1 Search and Rescue (SAR);
- .2 Technical matters (GMDSS, operational matters and performance standards); and
- .3 ITU matters.

12.9 The Sub-Committee noted that the thirteenth session of the Sub-Committee has been tentatively scheduled to be held from 19 to 23 January 2009.

13 ELECTION OF CHAIRMAN AND VICE-CHAIRMAN FOR 2009

13.1 In accordance with rule 16 of the Rules of Procedure of the Maritime Safety Committee, the Sub-Committee unanimously re-elected Mr. C. Salgado (Chile) as Chairman and Mr. A. Olopoenia (Nigeria) as Vice-Chairman for 2009.

14 ANY OTHER BUSINESS

Oceanic voyages by non-regulated craft which are not notified to the responsible MRCCs

14.1 The Sub-Committee considered the information provided by Chile (COMSAR 12/14), regarding a search and rescue activity concerning non-regulated recreational craft. Such craft engage in oceanic adventure voyages without notifying the authorities of the coastal State whose SAR regions they plan to cross. The failure to provide such information prevents the responsible search and rescue organizations from acting with the timeliness and speed necessary to protect life at sea and preserve the marine environment.

14.2 ISAF expressed its appreciation for the successful rescue operation conducted by the Chilean MRCC at Punta Arenas with regard to the yacht **Privateer** and ensured that it would do all to encourage members and non-members of ISAF to comply with the guidelines as given in MSC/Circ.1174.

14.3 The Sub-Committee endorsed the recommendation made by Chile and consequently invited the Committee to once again urge Member States to observe the guidelines contained in MSC/Circ.1174.

Codes, recommendations, guidelines of non-mandatory instruments

14.4 The Sub-Committee noted that MSC 83, when considering the list of codes, recommendations, guidelines and other safety- and security-related non-mandatory instruments relating to the work of the Committee (MSC 82/18/1 and MSC 82/INF.12), had referred the detailed consideration of the list to the relevant sub-committees for the identification of those instruments which might be relevant in the context of the collection of information on the implementation of such instruments, also requesting them to provide an input on potential users and requirements of the data scheme to be established.

14.5 The Sub-Committee observed that MSC 83 had noted in this connection that the Secretariat was developing a module of the IMO Global Integrated Shipping Information System (GISIS) on safety- and security-related non-mandatory requirements and recommendations, on the basis of MSC/Circ.815. When completed, the module could also contain information on the status of implementation of non-mandatory instruments to be kept updated by the Member States themselves using direct recording facilities. The module could also record, for each instrument, on a voluntary basis, the national legislation adopted for its implementation – including the ability to upload its full text – the application criteria and the status of the instrument with regard to its amendments.

14.6 The Sub-Committee considered document COMSAR 12/14/1 (Secretariat), containing at annex the list of codes, recommendations, guidelines and other non-mandatory instruments under the purview of the COMSAR Sub-Committee, which the Sub-Committee has been requested to review by MSC 83.

14.7 The Sub-Committee noted the information provided by the Secretariat that it had reviewed the list on a preliminary basis and that due to the closure of the Inmarsat-E service on 1 December 2006, the Assembly resolutions listed under numbers 16, 40 and the MSC circular listed under number 99 were strictly not valid anymore. Accordingly, they would have to be revoked at some stage.

14.8 In view of the length of the list attached to document COMSAR 12/14/1, containing 126 non-mandatory instruments, and the above information regarding the further development of GISIS, the Sub-Committee agreed to approve the list attached to document COMSAR 12/14/1 as being the list of relevant documents and to support, in general, the development of a GISIS module on non-mandatory requirements and recommendations to be kept updated by the Secretariat, and invited individual Member States to use the GISIS reporting facilities to enter information on the implementation of those requirements and recommendations and to upload the corresponding national legislation, as deemed appropriate.

14.9 The Sub-Committee agreed that there was not sufficient time to review carefully the complete list of non-mandatory instruments under the purview of the COMSAR Sub-Committee during this session. There was a need for experts to take a detailed look at these documents and to examine the need to revise or delete some of the documents. The Sub-Committee, therefore, decided that the establishment of a correspondence group to review the list intersessionally would be necessary to undertake this action.

14.10 Accordingly, the Sub-Committee established an intersessional Correspondence Group on the review of the existing COMSAR related codes, recommendations and guidelines of non-mandatory instruments under the leadership of the United Kingdom* with the following terms of reference:

- .1 review the existing COMSAR related codes, recommendations and guidelines of non-mandatory instruments to examine the necessity for revision or deletion;

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- .2 develop proposals for revision or deletion where appropriate; and
- .3 submit its report to COMSAR 13 for consideration.

14.11 The Sub-Committee invited the Committee to note the above decisions on the matter.

Progress on standards in development by the IEC

14.12 The Sub-Committee recalled that COMSAR 11 had agreed to invite the NAV Sub-Committee to consider the need for a presentation symbol for AIS-SART for use on radar and ECDIS displays.

14.13 The Sub-Committee noted that at NAV 53, the IEC observer had informed that IEC Task Group 80 had already developed, in the context of resolutions MSC.192(79) and MSC.191(79), symbols for AIS Search and Rescue Transmitter and AIS Aids to Navigation (both real and virtual) and that IEC had agreed to offer these symbols as an input paper to NAV 54 for subsequent inclusion in SN/Circ.243 thereon.

14.14 The Sub-Committee further noted that MSC 83 had endorsed the action of the Sub-Committee in inviting the NAV Sub-Committee to consider the need for a presentation symbol of AIS-SART.

14.15 In considering document COMSAR 12/14/2 (IEC), inviting it to note the progress made in the work and to provide advice on the proposals for the AIS-SART, and taking into account a liaison statement from ITU-R Working Party 5B on AIS-SART, the Sub-Committee referred the consideration of paragraphs 5, 6 and 7 of document COMSAR 12/14/2 to the Technical Working Group for detailed consideration.

14.16 The Sub-Committee further referred document COMSAR 12/14/2 to NAV 54 for consideration and follow-up action, as appropriate, with respect to the need for a presentation symbol of AIS-SART, under its agenda item 24 "Any other business".

Terms of reference for the Technical Working Group

14.17 The Sub-Committee instructed the Technical Working Group, established under agenda item 3, to consider also document COMSAR 12/14/2 (paragraphs 5, 6 and 7), taking into account decisions of, and comments and proposals made at Plenary, and to prepare as appropriate, a liaison statement to ITU, IEC, IALA and CIRM including comments and recommendations, for consideration in Plenary.

Report of the Technical Working Group

14.18 In considering the relevant part of the Technical Working Group's report (COMSAR 12/WP.3, paragraph 8.1), the Sub-Committee took action as indicated hereunder.

14.19 The Sub-Committee considered the information provided by IEC (COMSAR 12/14/2, paragraphs 5, 6 and 7) on AIS SART and taking into account the liaison statement from ITU to IEC, IMO, IALA and CIRM, that further consideration should be given on a preferred numbering scheme and that operations of the AIS SART should not be overly complicated. Accordingly, the Sub-Committee approved a liaison statement to ITU, IEC, IALA and CIRM on AIS Search and Rescue Transmitter (AIS-SART) as set out at annex 14 and instructed the Secretariat to convey it to ITU, IEC, IALA and CIRM and invited the Committee to endorse this action.

Software upgrades for communications and navigation systems

14.20 The Sub-Committee noted with interest the background information on software upgrades for communication and navigation systems due to the proliferation of processor-based communications and availability of software upgrades provided by the United Kingdom and Australia (COMSAR 12/INF.10), regarding the new high-priority item on the work programmes of the NAV and COMSAR Sub-Committees on the “Development of procedures for updating shipborne navigation and communication equipment”.

Expressions of appreciation

14.21 The Sub-Committee expressed appreciation to the following delegates and observers, who had recently relinquished their duties, retired or were transferred to other duties or were about to, for their invaluable contribution to its work and wished them a long and happy retirement or, as the case might be, every success in their new duties:

- Mr. John De Rose (IACS) (on retirement);
- Mr. Yoshio Sasamura (Japan) (on retirement);
- Mr. Thordur Thordarson (Iceland) (on retirement);
- Mr. Bendt Wedervang (Denmark) (on retirement); and
- Miss Michèle Foré (Secretariat) (on retirement).

15 ACTION REQUESTED OF THE COMMITTEE

15.1 The Maritime Safety Committee, at its eighty-fifth session, is invited to:

- .1 approve the draft MSC Circular on amendments to resolution A.705(17) on the Promulgation of Maritime Safety Information (paragraph 3.31 and annex 1);
- .2 approve the draft MSC Circular on amendments to resolution A.706(17) as amended on the IMO/IHO World-Wide Navigational Warning Service (paragraph 3.31 and annex 2);
- .3 endorse the action of the Sub-Committee to instruct the Secretariat to circulate the COMSAR circular on the list of NAVAREA Coordinators (paragraph 3.32);
- .4 endorse the action of the Sub-Committee to instruct the Secretariat to convey the liaison statement to ITU on the development of Class D DSC and the consequential revision of Recommendation ITU-R M.493-12 (paragraph 4.24 and annex 3);
- .5 endorse the decision of the Sub-Committee on the re-establishment of the Joint IMO/ITU Experts Group, including its terms of reference, and for the convening of a meeting from 10 to 12 June 2008 at IMO Headquarters (paragraph 4.30 and annex 4);
- .6 endorse the action taken by the Sub-Committee with regard to the consideration of future spectrum requirements for broadcasts of port security status in relation to the ISPS Code, the implementation of the LRIT system and the use of AIS and to invite comments thereon by its Working Group on Maritime Security (MSWG) (paragraphs 4.18, 4.19 and 4.33 to 4.35);

- .7 endorse the action of the Sub-Committee to instruct the Secretariat in conveying a liaison statement to IHO and ISO on ship and port security requirements for the ITU World Radiocommunications Conference 2011 (paragraph 4.35 and annex 5);
- .8 endorse the action of the Sub-Committee to instruct the Secretariat in circulating the List of Coast Earth Station Operation Coordinators in the Inmarsat system (paragraph 5.4);
- .9 endorse authorization of the Secretariat to revise and publish the COMSAR circular on the List of Coast Earth Station (CES) Operation Coordinators in the Inmarsat system on an annual basis, without bringing it first to the attention of the Sub-Committee for approval (paragraph 5.5);
- .10 consider making the amendments to the IAMSAR Manual available free of charge on the Publications part of the IMO website (paragraphs 6.5 to 6.10);
- .11 agree to establishing a more structured amendment process for the IAMSAR Manual (paragraphs 6.5 to 6.10);
- .12 endorse the execution of a fundamental review of the IAMSAR Manual, taking into account the justification, including a plan on how to conduct the review, provided by the ICAO/IMO Joint Working Group on the Harmonization of Aeronautical and Maritime SAR [(MSC 85/...)] (paragraph 6.65 and annex 6);
- .13 endorse the request of the Sub-Committee for WMU to include on the WMU SAR information platform information of actual SAR operations in which SOLAS ships were involved and advisory information services on SAR best practice (paragraphs 6.67, 6.73 and 6.74);
- .14 endorse the action of the Sub-Committee to instruct the Secretariat to bring the list of questions and general principles which may assist SAR authorities in establishing the proper operational procedures with their LRIT providers to the attention of the third session of the *Ad hoc* LRIT Group for the preparation of an appropriate MSC circular (paragraph 6.70 and annex 7);
- .15 endorse the action of the Sub-Committee to instruct the Secretariat to circulate the List of IMO documents and publications which should be held by a MRCC (paragraph 6.75 and annex 8);
- .16 endorse the decision on the convening of the 15th meeting of the ICAO/IMO JWG on Harmonization of Aeronautical and Maritime SAR, to be held in Canberra, Australia from 29 September to 3 October 2008, bearing in mind that MSC 83 already approved the intersessional meeting (paragraph 6.92 and annex 9);
- .17 endorse the action of the Sub-Committee to instruct the Secretariat to convey a liaison statement to IALA, CIRM, IEC and ITU on AIS Safety related Broadcast messages used for Distress purposes (paragraphs 7.7 to 7.9 and 7.13 to 7.18, and annex 10);

- .18 approve the draft MSC circular on Adoption of amendments to the IAMSAR Manual, taking into account ICAO's concurrence to the inclusion of the proposed amendments into the IAMSAR Manual (paragraphs 8.3 and 8.6 and annex 11);
- .19 note that with respect to the development of an e-navigation strategy an overview of the existing user needs relating to SOLAS regulation IV/4, as well as SOLAS regulations V/19, V/19-1 and XI-2/6 relating to AIS, LRIT and SSAS equipment was undertaken and tables of existing user needs including related equipment, performance standards and test standards were developed (paragraphs 11.1 to 11.29 and annexes 12 and 13);
- .20 urge Member States to observe the guidelines contained in MSC/Circ.1174 on Basic Safety Guidance for Oceanic Voyages by Non-regulated Craft (paragraph 14.3);
- .21 endorse the action of the Sub-Committee in instructing the Secretariat to convey a liaison statement to ITU, IEC, IALA and CIRM on AIS Search and Rescue Transmitter (AIS-SART) (paragraphs 14.12 to 14.19, and annex 14); and
- .22 approve the report in general.

15.2 In reviewing the work programme of the Sub-Committee, the Committee is invited to consider the revised work programme suggested by the Sub-Committee (annex 15) in general and, in particular, to:

- .1 delete "exemptions from radio requirements" (paragraph 12.4);
- .2 delete "Medical assistance in SAR services" (paragraph 6.62);
- .3 delete "Replacements for use of NBDP (radio telex) for maritime distress and safety communications in maritime MF/HF bands" (paragraph 9.19);
- .4 delete "Guidelines for uniform operating limitations of high-speed craft" (paragraph 10.8);
- .5 delete "Development of an e-navigation strategy" (paragraph 11.29);
- .6 extend the target completion date of the following work programme items, namely:
 - .1 "Harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters" (paragraph 6.91); and
 - .2 "Development in maritime radiocommunication systems and technology" (paragraph 7.6).

15.3 The Committee is also invited to approve the proposed agenda for the Sub-Committee's thirteenth session (annex 15), which has been developed using the agenda management procedure.

ANNEX 1

DRAFT MSC CIRCULAR

**AMENDMENTS TO RESOLUTION A.705(17) –
PROMULGATION OF MARITIME SAFETY INFORMATION**

The Maritime Safety Committee, [at its eighty-fifth session (26 November to 5 December 2008)], adopted the annexed amendments to resolution A.705(17) – Promulgation of Maritime safety Information, and decided that they should enter into force on [1 January 2010].

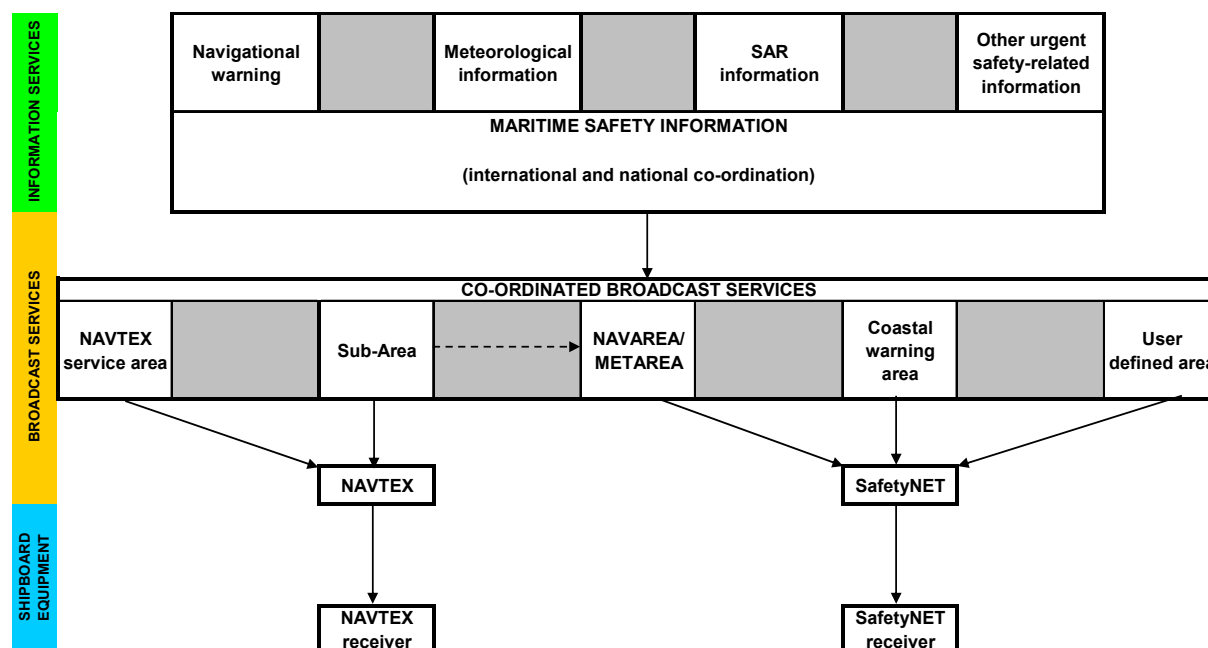
ANNEX

**RECOMMENDATION ON THE PROMULGATION OF
 MARITIME SAFETY INFORMATION**

1 INTRODUCTION

1.1 The purpose of this Recommendation is to set out the organization, standards and methods which should be used for the promulgation and reception of maritime safety information.

1.2 The maritime safety information service of the Global Maritime Distress and Safety System (GMDSS) is the internationally and nationally coordinated network of broadcasts containing information which is necessary for safe navigation, received in ships by equipment which automatically monitors the appropriate transmissions, displays information which is relevant to the ship and provides a print capability. This concept is illustrated in Figure 1.



**Figure 1 – The maritime safety information service of the
 Global Maritime Distress and Safety System**

1.3 Maritime safety information is of vital concern to all ships. It is therefore essential that common standards are applied to the collection, editing and dissemination of this information. Only by doing so will the mariner be assured of receiving the information he needs, in a form which he understands, at the earliest possible time.

2 DEFINITIONS

2.1 For the purposes of this Recommendation, the following definitions apply:

- .1 *Coastal warning area* means a unique and precisely defined sea area within a NAVAREA/METAREA or Sub-Area established by a coastal State for the purpose of coordinating the broadcast of coastal maritime safety information through the SafetyNET service.
- .2 *HF NBDP* means High Frequency narrow-band direct-printing, using radio telegraphy as defined in Recommendation ITU-R M.688.
- .3 *International NAVTEX service* means the coordinated broadcast and automatic reception on 518 kHz of maritime safety information by means of narrow-band direct-printing telegraphy using the English language¹.
- .4 *International SafetyNET service* means the coordinated broadcasting and automated reception of maritime safety information via the Inmarsat Enhanced Group Call (EGC) system, using the English language, in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.
- .5 *Maritime safety information (MSI)*² means navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages broadcast to ships.
- .6 *Maritime safety information service* means the internationally and nationally coordinated network of broadcasts containing information which is necessary for safe navigation.
- .7 *METAREA* means a geographical sea area³ established for the purpose of coordinating the broadcast of marine meteorological information. The term METAREA followed by a roman numeral may be used to identify a particular sea area. The delimitation of such areas is not related to and should not prejudice the delimitation of any boundaries between States.
- .8 *Meteorological information* means the marine meteorological warning and forecast information in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.
- .9 *National NAVTEX service* means the broadcast and automatic reception of maritime safety information by means of narrow-band direct-printing telegraphy using frequencies other than 518 kHz and languages as decided by the Administration concerned.

¹ as set out in the IMO NAVTEX Manual.

² as defined in regulation IV/2 of the 1974 SOLAS Convention, as amended.

³ which may include inland seas, lakes and waterways navigable by sea-going ships.

- .10** *National SafetyNET service* means the broadcasting and automated reception of maritime safety information via the Inmarsat EGC system, using languages as decided by the Administration concerned.
- .11** *NAVAREA* means a geographical sea area³ established for the purpose of coordinating the broadcast of navigational warnings. The term NAVAREA followed by a roman numeral may be used to identify a particular sea area. The delimitation of such areas is not related to and should not prejudice the delimitation of any boundaries between States.
- .12** *Navigational warning* means a message containing urgent information relevant to safe navigation broadcast to ships in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.
- .13** *NAVTEX* means the system for the broadcast and automatic reception of maritime safety information by means of narrow-band direct-printing telegraphy.
- .14** *NAVTEX service area* means a unique and precisely defined sea area for which maritime safety information is provided from a particular NAVTEX transmitter.
- .15** *Other urgent safety-related information* means maritime safety information broadcast to ships that is not defined as a navigational warning, meteorological information or SAR information. This may include, but is not limited to, significant malfunctions or changes to maritime communications systems, and new or amended mandatory ship reporting systems or maritime regulations affecting ships at sea.
- .16** *SafetyNET* means the international service for the broadcasting and automatic reception of maritime safety information through the Inmarsat EGC system. SafetyNET receiving capability is part of the mandatory equipment which is required to be carried by certain ships in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.
- .17** *SAR information* means distress alert relays and other urgent search and rescue information broadcast to ships.
- .18** *Sub-Area* means a sub-division of a NAVAREA/METAREA in which a number of countries have established a coordinated system for the promulgation of maritime safety information. The delimitation of such areas is not related to and shall not prejudice the delimitation of any boundaries between States.
- .19** *User defined area* means a temporary geographic area, either circular or rectangular, to which maritime safety information is addressed.
- .20** *World-Wide Navigational Warning Service (WWNWS)*⁴ means the internationally and nationally coordinated service for the promulgation of navigational warnings.

³ which may include inland seas, lakes and waterways navigable by sea-going ships.

⁴ as set out in resolution A.706(17), as amended.

- .21 In the operating procedures *coordination* means that the allocation of the time for data broadcast is centralized, the format and criteria of data transmissions are compliant as described in the Joint IMO/IHO/WMO Manual on Maritime Safety Information and that all services are managed as set out in resolutions A.705(17) as amended and A.706(17), as amended.

3 BROADCAST METHODS

3.1 Two principal methods are used for broadcasting maritime safety information in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended, in the areas covered by these methods, as follows:

- .1 NAVTEX: broadcasts to coastal waters; and
- .2 SafetyNET: broadcasts which cover all the waters of the globe except for Sea Area A4, as defined by resolution A.801(19), Annex 3, paragraph 4, as amended.

3.2 Information shall be provided for unique and precisely defined sea areas, each being served only by the most appropriate of the above systems. Although there will be some duplication to allow a ship to change from one system to another, the majority of messages will only be broadcast on one system.

3.3 NAVTEX broadcasts shall be made in accordance with the standards and procedures set out in the NAVTEX Manual.

3.4 SafetyNET broadcasts shall be made in accordance with the standards and procedures set out in the International SafetyNET Manual.

3.5 HF NBDP may be used to promulgate maritime safety information in areas outside Inmarsat coverage (SOLAS regulation IV/7.1.5).

3.6 In addition, Administrations may also provide maritime safety information by other means.

4 SHIPBOARD EQUIPMENT

4.1 Ships are required to be capable of receiving maritime safety information broadcasts for the area in which they operate in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.

4.2 The NAVTEX receiver should operate in accordance with the technical specifications set out in Recommendation ITU-R M.540-2, as amended, and should meet the performance standards adopted by the Organization by resolution MSC.148(77), as amended.

4.3 The SafetyNET receiver should conform to the Maritime Design and Installation Guidelines (DIGs) published by Inmarsat, and should meet the performance standards adopted by the Organization by resolution A.664(16).

4.4 In sea area A4, outside of the coverage of NAVTEX, where MSI is received using HF NBDP, the HF NBDP receiver should operate in accordance with the technical specifications set out in Recommendation ITU-R M.688, as amended, and should meet the performance standards adopted by the Organization by resolution A.700(17), as amended.

5 PROVISION OF INFORMATION

5.1 Navigational warnings shall be provided in accordance with the standards, organization and procedures of the WWNWS under the functional guidance of the International Hydrographic Organization (IHO) through its Commission on the Promulgation of Radio Navigational Warnings (CPRNW).

5.2 Meteorological information shall be provided in accordance with the World Meteorological Organization (WMO) technical regulations and recommendations, monitored and reviewed by the Expert Team on Maritime Safety Services of the Joint WMO/IOC⁵ Commission for Oceanography and Marine Meteorology (JCOMM).

5.3 SAR information shall be provided by the various authorities responsible for coordinating maritime search and rescue operations in accordance with the standards and procedures established by the Organization.

5.4 Other urgent safety-related information shall be provided by the relevant national or international authority responsible for managing the system or scheme.

5.5 Relevant national or international authorities shall take into account the need for contingency planning.

6 COORDINATION PROCEDURES

6.1 In order to make the best use of automated reception facilities, and to ensure that the mariner receives only that information necessary for safe navigation, careful coordination is required.

6.2 In general, this requirement for coordination will be met by the standard operational procedures of the Organization, International Hydrographic Organization (IHO), World Meteorological Organization (WMO), International Telecommunication Union (ITU) and the International Mobile Satellite Organization (IMSO). Cases of difficulty should be referred, in the first instance, to the most appropriate parent body.

6.3 Administrations broadcasting maritime safety information should provide details of services to the Organization, which will maintain and publish this as part of the GMDSS Master Plan.

6.4 The coordination of changes to operational NAVTEX services and of the establishment of new stations is undertaken by the Coordinating Panel on NAVTEX Services of the Sub-Committee on Radiocommunications and Search and Rescue on behalf of the Maritime Safety Committee.

⁵ IOC is the Intergovernmental Oceanographic Commission of UNESCO.

6.5 The coordination of changes to operational SafetyNET services and of the authorization and registration of information providers is undertaken by the International SafetyNET Coordinating Panel of the Sub-Committee on Radiocommunications and Search and Rescue on behalf of the Maritime Safety Committee.

6.6 Administrations should design their broadcasts to suit specific service areas. The designation of service areas is an important part of the coordination process since it is intended that a ship should be able to obtain all the information relevant to a given area from a single source. The Maritime Safety Committee approves NAVAREAs/METAREAs and service areas for the International NAVTEX and SafetyNET service as advised by IHO and WMO.

7 PROCEDURE FOR AMENDING THE MARITIME SAFETY INFORMATION SERVICE

7.1 Proposals for amendment or enhancement of the maritime safety information service should be submitted for evaluation to Maritime Safety Committee through the Sub-Committee on Radiocommunications and Search and Rescue.

7.2 The agreement of the IHO, WMO, IMSO and ITU, as appropriate, and the active participation of other bodies should be sought, according to the nature of the proposed amendments.

7.3 The active participation of IHO, WMO, IMSO and ITU is considered necessary for the coordination of broadcasts of all maritime safety information.

7.4 Amendments adopted by the Maritime Safety Committee will be notified to all concerned. At least 12 months' notice will be given before implementation and they will come into force on 1 January of the following year.

ANNEX 2

DRAFT MSC CIRCULAR

**AMENDMENTS TO RESOLUTION A.706(17) –
WORLD-WIDE NAVIGATIONAL WARNING SERVICE**

The Maritime Safety Committee, [at its eighty-fifth session (26 November to 5 December 2008)], adopted the annexed amendments to annex 1, annex 2 and Appendix of resolution A.706(17) – World-Wide Navigational Warning Service, and decided that they should enter into force on [1 January 2010].

ANNEX 1

IMO/IHO WORLD-WIDE NAVIGATIONAL WARNING SERVICE GUIDANCE DOCUMENT

1 INTRODUCTION

1.1 The purpose of this document is to provide specific guidance for the promulgation of internationally coordinated NAVAREA and coastal warnings. Its guidance does not apply to purely national warning services which supplement these internationally coordinated services.

1.2 The original resolution of the tenth International Hydrographic Conference in 1972 recommended the formation of an *ad hoc* joint IMO/IHO Commission to study the “establishment of a coordinated, efficient global radio navigational warning service”. Subsequently, this became a purely IHO Commission known as the Commission on Promulgation of Radio Navigational Warnings, which nevertheless consulted continuously with IMO. In its report to the eleventh International Hydrographic Conference in 1977, the Commission submitted a Draft Plan for the Establishment of a World-Wide Navigational Warning System, also referred to as Plan for the Establishment of a coordinated Radio Navigational Warning Service. The title World-Wide Navigational Warning Service or WWNWS used for this revised edition of the document reflects the evolution of the system from a proposed action to an effective and fully operational coordinated service. This revised edition reflects the evolution of the WWNWS since the advent of the Global Maritime Distress and Safety System (GMDSS), as adopted by the Conference of Contracting Governments to the International Convention for the Safety of Life at Sea, 1974, on the Global Maritime Distress and Safety System in November 1988, effective on 1 February 1992.

1.3 Future amendments to this guidance document will be considered formally and approved by both IHO and IMO in accordance with the procedures set out in annex 2. Proposed amendments shall be evaluated by the IHO Commission on the Promulgation of Radio Navigational Warnings, which includes an *ex-officio* representative of the IMO Secretariat, prior to any extensive IHO or IMO consideration.

2 DEFINITIONS

2.1 For the purposes of the WWNWS, the following definitions apply:

- .1** *Coastal warning* means a navigational warning promulgated as part of a numbered series by a National coordinator. Broadcast shall be made by the International NAVTEX service to defined NAVTEX service areas and/or by the International SafetyNET service to coastal warning areas. (In addition, Administrations may issue coastal warnings by other means.)
- .2** *Coastal warning area* means a unique and precisely defined sea area within a NAVAREA or Sub-Area established by a coastal State for the purpose of coordinating the broadcast of coastal maritime safety information through the SafetyNET service.

- .3 *HF NBDP* means High Frequency narrow-band direct-printing, using radio telegraphy as defined in Recommendation ITU-R M.688.
- .4 *In-force bulletin* means a list of serial numbers of those NAVAREA, Sub-Area or coastal warnings in force issued and broadcast by the NAVAREA coordinator, Sub-Area coordinator or National coordinator during at least the previous six weeks.
- .5 *International NAVTEX service* means the coordinated broadcast and automatic reception on 518 kHz of maritime safety information by means of narrow-band direct-printing telegraphy using the English language¹.
- .6 *International SafetyNET service* means the coordinated broadcasting and automated reception of maritime safety information via the Inmarsat Enhanced Group Call (EGC) system, using the English language, in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.
- .7 *Local warning* means a navigational warning which covers inshore waters, often within the limits of jurisdiction of a harbour or port authority.
- .8 *Maritime safety information (MSI)*² means navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages broadcast to ships.
- .9 *METAREA* means a geographical sea area³ established for the purpose of coordinating the broadcast of marine meteorological information. The term METAREA followed by a roman numeral may be used to identify a particular sea area. The delimitation of such areas is not related to and should not prejudice the delimitation of any boundaries between States.
- .10 *National coordinator* means the national authority charged with collating and issuing coastal warnings within a national area of responsibility.
- .11 *National NAVTEX service* means the broadcast and automatic reception of maritime safety information by means of narrow-band direct-printing telegraphy using frequencies other than 518 kHz and languages as decided by the Administration concerned.
- .12 *National SafetyNET service* means the broadcasting and automated reception of maritime safety information via the Inmarsat EGC system, using languages as decided by the Administration concerned.
- .13 *NAVAREA* means a geographical sea area³ established for the purpose of coordinating the broadcast of navigational warnings. The term NAVAREA followed by a roman numeral may be used to identify a particular sea area.

¹ as set out in the IMO NAVTEX Manual.

² as defined in regulation IV/2 of the 1974 SOLAS Convention, as amended.

³ which may include inland seas, lakes and waterways navigable by sea-going ships.

The delimitation of such areas is not related to and should not prejudice the delimitation of any boundaries between States.

- .14 *NAVAREA coordinator* means the authority charged with coordinating, collating and issuing NAVAREA warnings for a designated NAVAREA.
- .15 *NAVAREA warning* means a navigational warning or in-force bulletin promulgated as part of a numbered series by a NAVAREA coordinator.
- .16 *Navigational warning* means a message containing urgent information relevant to safe navigation broadcast to ships in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended.
- .17 *NAVTEX coordinator* means the authority charged with operating and managing one or more NAVTEX stations broadcasting maritime safety information as part of the International NAVTEX service.
- .18 *Sub-Area* means a sub-division of a NAVAREA in which a number of countries have established a coordinated system for the promulgation of navigational warnings. The delimitation of such areas is not related to and shall not prejudice the delimitation of any boundaries between States.
- .19 *Sub-Area coordinator* means the authority charged with coordinating, collating and issuing Sub-Area warnings for a designated Sub-Area.
- .20 *Sub-Area warning* means a navigational warning promulgated as part of a numbered series by a Sub-Area coordinator. Broadcast shall be made by the International NAVTEX service to defined NAVTEX service areas or by the International SafetyNET service (through the appropriate NAVAREA coordinator).
- .21 In the operating procedures *coordination* means that the allocation of the time for data broadcast is centralized, the format and criteria of data transmissions are compliant as described in the Joint IMO/IHO/WMO Manual on Maritime Safety Information and that all services are managed as set out in resolutions A.705(17), as amended and A.706(17), as amended.

3 NAVIGATIONAL WARNING BROADCASTS

3.1 Methods

3.1.1 Two principal methods are used for broadcasting navigational warnings as part of MSI in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended, in the areas covered by these methods, as follows:

- .1 NAVTEX: broadcasts to coastal waters; and
- .2 SafetyNET: broadcasts which cover all the waters of the globe except for sea area A4, as defined by resolution A.801(19), Annex 3, paragraph 4, as amended.

3.1.2 Information shall be provided for unique and precisely defined sea areas, each being served only by the most appropriate of the above systems. Although there will be some duplication to allow a ship to change from one system to another, the majority of messages will only be broadcast on one system.

3.1.3 NAVTEX broadcasts shall be made in accordance with the standards and procedures set out in the NAVTEX Manual.

3.1.4 SafetyNET broadcasts shall be made in accordance with the standards and procedures set out in the International SafetyNET Manual.

3.1.5 HF NBDP may be used to promulgate maritime safety information in areas outside Inmarsat coverage (SOLAS regulation IV/7.1.5).

3.1.6 In addition, Administrations may also provide navigational warnings by other means.

3.2 Scheduling

3.2.1 *Automated methods (NAVTEX /SafetyNET)*

3.2.1.1 Navigational warnings shall be broadcast as soon as possible or as dictated by the nature and timing of the event. Normally, the initial broadcast should be made as follows:

- .1** for NAVTEX, at the next scheduled broadcast, unless circumstances indicate the use of procedures for VITAL or IMPORTANT warnings; and
- .2** for SafetyNET, within 30 min of receipt of original information, or at the next scheduled broadcast.

3.2.1.2 Navigational warnings shall be repeated in scheduled broadcasts in accordance with the guidelines promulgated in the NAVTEX Manual and International SafetyNET Manual as appropriate.

3.2.1.3 At least two scheduled daily broadcast times are necessary to provide adequate promulgation of NAVAREA warnings. When NAVAREAs extend across more than six time zones, more than two broadcasts should be considered to ensure that warnings can be received. When using SafetyNET in lieu of NAVTEX for coastal warnings, Administrations may need to consider an increase in the number of scheduled daily broadcasts compared with the requirement for NAVAREA warnings.

3.2.2 *Schedule changes*

3.2.2.1 Broadcast times for NAVTEX are defined by the B1 character of the station, allocated by the coordinating Panel on NAVTEX Services of the Sub-Committee on Radiocommunications and Search and Rescue.

3.2.2.2 Times of scheduled broadcasts under the international SafetyNET service are coordinated through the International SafetyNET coordinating Panel.

4 NAVIGATIONAL WARNINGS

4.1 General

4.1.1 There are four types of navigational warnings: NAVAREA warnings, Sub-Area warnings, coastal warnings and local warnings. The WWNWS guidance and coordination are involved with only three of them:

- .1** NAVAREA warnings;
- .2** Sub-Area warnings; and
- .3** coastal warnings.

4.1.2 Navigational warnings shall remain in force until cancelled by the originating coordinator. Navigational warnings should be broadcast for as long as the information is valid; however, if they are readily available to mariners by other official means, for example in Notices to Mariners, then after a period of six weeks they may no longer be broadcast.

4.1.3 The minimum information in a navigational warning which a mariner requires is “hazard” and “position”. It is usual, however, to include sufficient extra detail to allow some freedom of action in the vicinity of the hazard. This means that the message should give enough extra data for the mariner to be able to recognize the hazard and assess its effect upon his navigation.

4.1.4 If known, the duration of the event causing a navigational warning should be given in the text.

4.1.5 Some of the subjects for navigational warnings listed in paragraph 4.2.1.3 (e.g., drifting ice, tsunami warnings, negative tidal surges) may also be suitable for promulgation as METAREA forecasts or warnings. In this event, appropriate coordination between the relevant NAVAREA coordinator and METAREA issuing Service must occur.

4.2 The four types of navigational warnings are:

4.2.1 *NAVAREA warnings*

4.2.1.1 NAVAREA warnings are concerned with the information detailed below which ocean-going mariners require for their safe navigation. This includes, in particular, new navigational hazards and failures of important aids to navigation as well as information which may require changes to planned navigational routes.

4.2.1.2 Coastal warnings are broadcast by the International NAVTEX service, or by the International SafetyNET service when implemented in lieu of NAVTEX. They are not normally rebroadcast as NAVAREA warnings unless deemed of such significance that the mariner should be aware of them before entering a NAVTEX service area. The National coordinator will evaluate the significance of the information for consideration as a NAVAREA warning while the NAVAREA coordinator will make the final determination.

4.2.1.3 The following subjects are considered suitable for broadcast as NAVAREA warnings. This list is not exhaustive and should be regarded only as a guideline. Furthermore, it pre-supposes that sufficiently precise information about the item has not previously been disseminated in a Notice to Mariners:

- .1 casualties to lights, fog signals, buoys and other aids to navigation affecting main shipping lanes;
- .2 the presence of dangerous wrecks in or near main shipping lanes and, if relevant, their marking;
- .3 establishment of major new aids to navigation or significant changes to existing ones when such establishment or change, might be misleading to shipping;
- .4 the presence of large unwieldy tows in congested waters;
- .5 drifting hazards (including derelict ships, ice, mines, containers, other large items, etc.);
- .6 areas where search and rescue (SAR) and anti-pollution operations are being carried out (for avoidance of such areas);
- .7 the presence of newly discovered rocks, shoals, reefs and wrecks likely to constitute a danger to shipping, and, if relevant, their marking;
- .8 unexpected alteration or suspension of established routes;
- .9 cable or pipe-laying activities, the towing of large submerged objects for research or exploration purposes, the employment of manned or unmanned submersibles, or other underwater operations constituting potential dangers in or near shipping lanes;
- .10 the establishment of research or scientific instruments in or near shipping lanes;
- .11 the establishment of offshore structures in or near shipping lanes;
- .12 significant malfunctioning of radio-navigation services and shore-based maritime safety information radio or satellite services;
- .13 information concerning special operations which might affect the safety of shipping, sometimes over wide areas, e.g., naval exercises, missile firings, space missions, nuclear tests, ordnance dumping zones, etc. It is important that where the degree of hazard is known, this information is included in the relevant warning. Whenever possible such warnings should be originated not less than five days in advance of the scheduled event and reference may be made to relevant national publications in the warning;
- .14 acts of piracy and armed robbery against ships;

- .15 tsunamis and other natural phenomena, such as abnormal changes to sea level;
- .16 World Health Organization (WHO) health advisory information; and
- .17 security related requirements⁴.

4.2.2 *Sub-Area warnings*

4.2.2.1 Sub-Area warnings broadcast information which is necessary for safe navigation within a Sub-Area. They will normally include all subjects listed in 4.2.1.3 above, but will usually affect only the Sub-Area.

4.2.3 *Coastal warnings*

4.2.3.1 Coastal warnings broadcast information which is necessary for safe navigation within areas seaward of the fairway buoy or pilot station, and should not be restricted to main shipping lanes. Where the area is served by NAVTEX, it should provide navigational warnings for the entire NAVTEX service area. Where the area is not served by NAVTEX, it is necessary to include all warnings relevant to the coastal waters up to 250 miles from the coast in the International SafetyNET service broadcast.

4.2.3.2 Coastal warnings should include at least the subjects in 4.2.1.3.

4.2.4 *Local warnings*

4.2.4.1 Local warnings broadcast information which cover inshore waters, often within the limits of jurisdiction of a harbour or port authority. They are broadcast by means other than NAVTEX or SafetyNET, and supplement coastal warnings by giving detailed information within inshore waters.

5 MESSAGE REQUIREMENTS

5.1 Guidance

5.1.1 Operational guidance for handling and formatting navigational warnings is given in the Joint IMO/IHO/WMO Manual on Maritime Safety Information, the NAVTEX Manual and the International SafetyNET Manual.

5.2 Numbering

5.2.1 Navigational warnings in each series shall be consecutively numbered throughout the calendar year, commencing with 0001 at 0000 UTC on 1 January.

5.2.2 Navigational warnings should, as a general rule, be transmitted in reverse numerical order on scheduled broadcasts.

⁴ In accordance with the requirements of the International Ship and Port Facility Security Code.

5.3 Language

5.3.1 All NAVAREA, Sub-Area and coastal warnings shall be broadcast only in English in the International NAVTEX and SafetyNET services.

5.3.2 In addition to the required broadcasts in English, NAVAREA, Sub-Area and coastal warnings may be broadcast in a national language using national NAVTEX and SafetyNET services and/or other means.

5.3.3 Local warnings may be issued in the national language and/or in English.

5.4 “No warnings” message

5.4.1 When there are no navigational warnings to be disseminated at a scheduled broadcast time, a brief message shall be transmitted to identify the broadcast and advise the mariner that there is no navigational warning message traffic on hand.

6 COORDINATOR RESOURCES AND RESPONSIBILITIES

6.1 NAVAREA coordinator resources

6.1.1 The NAVAREA coordinator must have:

- .1** the expertise and information sources of a well-established national hydrographic service;
- .2** effective communications, e.g., telephone, e-mail, facsimile, internet, telex, etc., with Sub-Area and National coordinators in the NAVAREA, with other NAVAREA coordinators, and with other data providers; and
- .3** access to broadcast systems for transmission to the navigable waters of the NAVAREA. As a minimum, this shall include those described in paragraph 3.1.1. Reception should normally be possible at least 700 nautical miles beyond the limit of the NAVAREA (24 hours' sailing by a fast ship).

6.2 NAVAREA coordinator responsibilities

6.2.1 The NAVAREA coordinator must:

- .1** endeavour to be informed of all events that could significantly affect the safety of navigation within the NAVAREA;
- .2** assess all information immediately upon receipt in the light of expert knowledge for relevance to navigation in the NAVAREA;
- .3** select information for broadcast in accordance with the guidance given in paragraph 4.2.1 above;
- .4** draft NAVAREA warning messages in accordance with the Joint IMO/IHO/WMO Manual on Maritime Safety Information;

- .5 direct and control the broadcast of NAVAREA warning messages, in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended;
- .6 forward NAVAREA warnings and relevant associated information which may require wider promulgation directly to adjacent NAVAREA coordinators and/or others as appropriate, using the quickest possible means;
- .7 ensure that NAVAREA warnings which remain in force for more than six weeks are made available immediately to NAVAREA coordinators, other authorities and mariners in general, as appropriate;
- .8 ensure that information concerning all navigational warning subject areas listed in paragraph 4.2.1.3 that may not require a NAVAREA warning within their own NAVAREA is forwarded immediately to the appropriate National and NAVAREA coordinators affected by the event;
- .9 broadcast in-force bulletins not less than once per week at a regularly scheduled time;
- .10 promulgate the cancellation of NAVAREA warnings which are no longer valid;
- .11 act as the central point of contact on matters relating to navigational warnings within the NAVAREA;
- .12 promote and oversee the use of established international standards and practices in the promulgation of navigational warnings throughout the NAVAREA;
- .13 when notified by the authority designated to act on reports of piracy and armed robbery against ships, arrange for the broadcast of a suitable NAVAREA warning. Additionally, keep the national or regional piracy control centre informed of long-term broadcast action(s);
- .14 when notified by the appropriate authorities, arrange for the broadcast of suitable NAVAREA warnings to promulgate World Health Organization (WHO) health advisory information; and tsunami-related information;
- .15 monitor the broadcasts which they originate to ensure that the messages have been correctly broadcast;
- .16 maintain records of source data relating to NAVAREA messages in accordance with the requirement of the National Administration of the NAVAREA coordinator;
- .17 coordinate preliminary discussions between neighbouring Member States, seeking to establish NAVTEX services and with other adjacent Administrations, prior to formal application;
- .18 contribute to the development of international standards and practices through attendance and participation in the IHO Commission on the Promulgation of Radio Navigational Warnings (CPRNW) meetings, and also participate in relevant

IMO, IHO and WMO fora as appropriate, e.g., Sub-Committee on Radiocommunications and Search and Rescue, Expert Team On Maritime Safety Services and other regional conferences, etc., as required; and

- .19 take into account the need for contingency planning.

6.3 Sub-Area coordinator resources

6.3.1 The Sub-Area coordinator must have, or have access to:

- .1 the expertise and information sources of a well established national hydrographic service;
- .2 effective communications, e.g., telephone, e-mail, facsimile, internet, telex, etc., with National coordinators in the Sub-Area, with the NAVAREA coordinator, and with other data providers; and
- .3 access to broadcast systems for transmission to the entire Sub-Area.

6.4 Sub-Area coordinator responsibilities

6.4.1 The Sub-Area coordinator must:

- .1 endeavour to be informed of all events that could significantly affect the safety of navigation within the Sub-Area;
- .2 assess all information immediately upon receipt in the light of expert knowledge for relevance to navigation in the Sub-Area;
- .3 select information for broadcast in accordance with the guidance given in paragraph 4.2.1 above;
- .4 draft Sub-Area warning messages in accordance with the Joint IMO/IHO/WMO Manual on Maritime Safety Information;
- .5 direct and control the broadcast of Sub-Area warning messages, in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended;
- .6 forward Sub-Area warnings and relevant associated information which may require wider promulgation directly to their own NAVAREA coordinator using the quickest possible means;
- .7 broadcast in-force bulletins not less than once per week at a regularly scheduled time;
- .8 promulgate the cancellation of Sub-Area warnings which are no longer valid;
- .9 act as the central point of contact on matters relating to navigational warnings within the Sub-Area;

- .10 promote the use of established international standards and practices in the promulgation of navigational warnings within the Sub-Area;
- .11 monitor the broadcasts which they originate to ensure that the messages have been correctly broadcast;
- .12 maintain records of source data relating to NAVAREA messages in accordance with the requirement of the National Administration of the NAVAREA coordinator;
- .13 contribute to the development of international standards and practices through attendance and participation in relevant IMO, IHO and WMO fora, e.g., Sub-Committee on Radiocommunications and Search and Rescue (COMSAR), CPRNW, Expert Team On Maritime Safety Services, appropriate regional conferences, etc.; and
- .14 take into account the need for contingency planning.

6.5 National coordinator resources

6.5.1 The national coordinator must have:

- .1 established sources of information relevant to the safety of navigation within national waters;
- .2 effective communications, e.g., telephone, e-mail, facsimile, internet, telex, etc., with the NAVAREA/Sub-Area coordinator and adjacent National coordinators; and
- .3 access to broadcast systems for transmission to their area of national responsibility.

6.6 National coordinator responsibilities

6.6.1 The national coordinator must:

- .1 endeavour to be informed of all events that could significantly affect the safety of navigation within their area of national responsibility;
- .2 assess all information immediately upon receipt in the light of expert knowledge for relevance to navigation in their area of national responsibility;
- .3 select information for broadcast in accordance with the guidance given in paragraph 4.2.1 above;
- .4 draft coastal warning messages in accordance with the Joint IMO/IHO/WMO Manual on Maritime Safety Information;
- .5 direct and control the broadcast of coastal warning messages, in accordance with the provisions of the International Convention for the Safety of Life at Sea, 1974, as amended;

- .6 forward coastal warning messages and relevant associated information which may require wider promulgation directly to their NAVAREA coordinator and/or adjacent National coordinators as appropriate, using the quickest possible means;
- .7 broadcast in-force bulletins not less than once per week at a regularly scheduled time;
- .8 promulgate the cancellation of coastal warnings which are no longer valid;
- .9 act as the central point of contact on matters relating to navigational warnings within their area of national responsibility;
- .10 promote the use of established international standards and practices in the promulgation of navigational warnings within their area of national responsibility;
- .11 monitor the broadcasts which they originate to ensure that the messages have been correctly broadcast;
- .12 maintain records of source data relating to NAVAREA messages in accordance with the requirement of the National Administration of the NAVAREA coordinator; and
- .13 take into account the need for contingency planning.

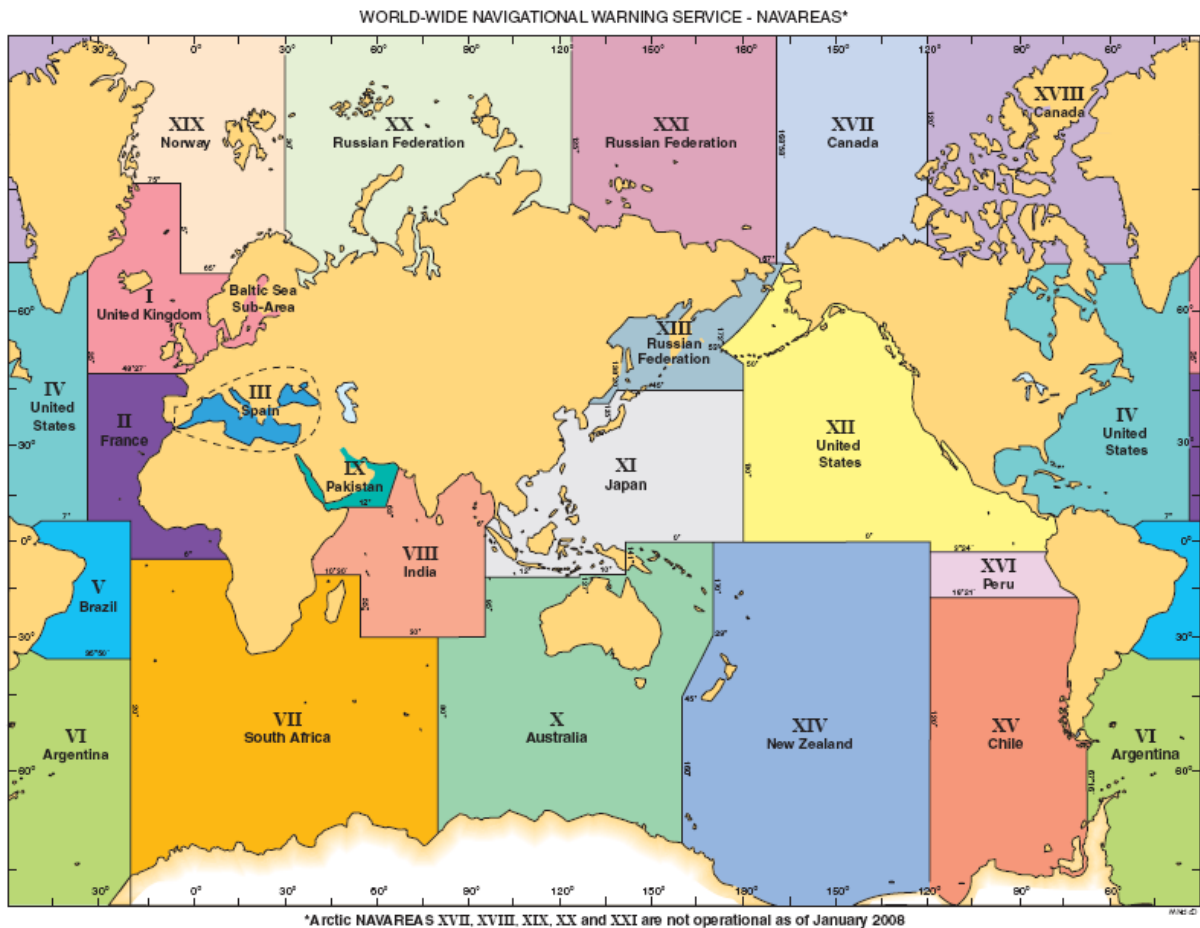
ANNEX 2

**IMO PROCEDURE FOR AMENDING THE WORLD-WIDE
NAVIGATION WARNING SERVICE**

- 1 Proposed amendments to the world-wide navigational warning service should be submitted to the Maritime Safety Committee for evaluation.
- 2 Amendments to the service should normally come into force at intervals of approximately two years or at such periods as determined by the Maritime Safety Committee at the time of adoption. Amendments adopted by the Maritime Safety Committee will be notified to all concerned, will provide at least 12 months notifications and will come into force on 1 January of the following year.
- 3 The agreement of the International Hydrographic Organization and the active participation of other bodies should be sought according to the nature of the proposed amendments.
- 4 When the proposals for amendment have been examined in substance, the Maritime Safety Committee will entrust the Sub-Committee on Radiocommunications and Search and Rescue with the ensuing editorial tasks.
- 5 The NAVAREA schedule of broadcast times and frequencies, not being an integral part of the service and being subject to frequent changes, will not be subject to the amendment procedures.

Appendix

Geographical areas for coordinating and promulgating NAVAREA warnings



The delimitation of these NAVAREAs is not related to and shall not prejudice the delimitations of any boundaries between States.

ANNEX 3**LIAISON STATEMENT TO ITU-R WP 5B****RECOMMENDATION ITU-R M.493-12 ON
DIGITAL SELECTIVE CALLING SYSTEM FOR USE IN
THE MARITIME MOBILE SERVICE**

1. IMO would like to thank the ITU-R for the revised version of Recommendation ITU-R M.493, adopted by ITU-R Study Group 8 and approved by consultation, and the liaison statement (Document 8B/TEMP/269) concerning clarification of Recommendation ITU-R M.493-12 on Digital Selective Calling issues.
2. The Sub-Committee on Radiocommunications and Search and Rescue (COMSAR), at its twelfth session (7 to 11 April 2008), studied the revised recommendation. It was noted that the ITU-R now recommends that distress relay calls are included in the definition of Class D DSC. In fact there now appears to be very little difference between Class D and Class B DSC at VHF whereas the recommendation describes Class D as a “simplified” version of DSC equipment. It was considered that attempts to introduce additional functionalities in DSC equipment intended for use on non-SOLAS ships has the potential to degrade the smooth operation of the GMDSS.
3. IMO wishes to inform ITU-R that IMO’s MSC/Circ.803 contains the guidelines of the Organization on the functional requirements of the GMDSS appropriate to allow effective participation of non-SOLAS ships in the GMDSS. Class D DSC was originally introduced to facilitate MSC/Circ.803 by providing the functional requirements of basic distress, safety and urgency alerting to other stations. Distress relay functions were not included as they were considered to be not appropriate for operators with limited training and this is consistent with COMSAR/Circ.25 and Recommendation ITU-R M.541.
4. ITU-R is accordingly requested not to include in the description and tables for class D VHF DSC the transmission and acknowledgement of distress relays and distress relays on behalf of someone else (DROBOSE) nor add further call types for Class D DSC in Recommendation ITU-R M.493.
5. ITU-R are accordingly requested to review the annexes to ensure compliance with COMSAR/Circ.25 and Recommendation ITU-R M.541, while noting that this does not detract from their current status as examples of equipment design.
6. IMO thanks ITU-R for their work in revising Recommendation ITU-R M.493 but advises that, since DSC is now a well established system of some 30 years standing, any proposed changes should be confirmed by sufficient studies and testing, which could include field trials of equipment, before the changes to the system are recommended.

ANNEX 4**TERMS OF REFERENCE FOR THE JOINT IMO/ITU EXPERTS GROUP
ON MARITIME RADIOCOMMUNICATION MATTERS****Purpose**

To develop the future requirements for maritime radiocommunications taking into account the operational needs as defined by the IMO and the regulatory needs as defined by the ITU.

Structure

An experts group will be established from people active in IMO and ITU with a representative range of viewpoints.

Contact points:

IMO Secretariat	–	Mr. J.A. van der Graaf
ITU Secretariat	–	Mr. W. Frank

The Secretariats will liaise with each other and interested administrations to determine the optimum composition of the group, regarding representation of various interests, geographic distribution and efficiency of working. IMO is prepared to provide the group leader.

Terms of reference

- 1 To analyse the outcome of WRC-2007 in line with the IMO position submitted to the Conference.
- 2 To analyse the Resolutions of WRC-2007 in order to identify major areas of interest for IMO.
- 3 To prepare advice on a draft IMO position to WRC-2011 Agenda items 1.9, 1.10, 1.23, 2, 4 and 8.2, as well as other Agenda items as deemed appropriate with particular emphasis on:
 - .1 the revision of frequencies and channelling arrangements of Appendix 17;
 - .2 frequency requirements with regard to operation of safety systems for ships and ports; and
 - .3 the implementation issues of relevant WRC-07 Resolutions.
- 4 To prepare briefings for ITU-R WP5B and WP4C meetings on issues of special interest to the maritime radiocommunications.

Suggested method of working

To meet in IMO Headquarters, London from 10 to 12 June 2008 to:

- .1 consider the outcome of COMSAR 12;
- .2 prepare briefing for ITU-R WP5B (29 October to 7 November 2008 and WP4C (13 to 22 October 2008); and
- .3 prepare advice on a draft IMO position paper on WRC-11 issues for consideration at COMSAR 13 and the following COMSAR meetings.

Taking into account provisional dates of WRC-11 (October – November 2011) and CPM-11 (April – May 2011) the IMO position should be finalized by October 2010.

Two additional meetings in 2009 and 2010 should be envisaged.

ANNEX 5**LIAISON STATEMENT TO IHO AND ISO****SHIP AND PORT SECURITY REQUIREMENTS FOR THE
ITU WORLD RADIOCOMMUNICATION CONFERENCE 2011****General**

ITU's WRC-07, Resolution 357 recognizes that there is a global requirement to enhance maritime safety, ship and port security via spectrum dependent systems. WRC-07 has proposed that WRC-11 consider amendments to the provisions of the Radio Regulations necessary to provide for the operation of ship and port security and maritime safety systems. This was done in recognition of existing and future technologies. Depending on the selection of these technologies, ITU-R may need to conduct, as a matter of urgency, studies to determine the spectrum requirements and potential frequency bands suitable to support ship and port security and enhanced maritime safety systems. ITU has invited IMO and all members of the Radiocommunication Sector, to contribute to these studies. A series of IMO/ITU Meetings of Experts will be convened to address these issues. The first meeting will be held on 10-12 June 2008 at IMO Headquarters.

Security broadcasts and radiocommunication procedures

The World-Wide Navigational Warning Service (WWNWS) was previously adopted by resolutions A.419(XI) and A.706(17), as amended, and has successfully been in existence since 1979. Provisions were made for the promulgation of maritime safety information by the 1988 amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS), concerning radiocommunications for the global maritime distress and safety system. SOLAS, chapter XI-2, regulation 7 (Threat to Ships), requires Contracting Governments to provide a point of contact and to advise ships of any changes in security level.

IMO requests IHO to review radiocommunication procedural requirements for the World-Wide Navigational Warning Service for use in promulgating security level announcements for ship and port security needs, and inform IMO in order that they may consider the need for radio spectrum requirements.

Port Security Requirements

ITU's WRC-07, Resolution 357 recognized that there is an increasing need, on a global basis, to enhance ship and cargo identification, tracking and surveillance for ship and port security purposes. ISO TC104's work on standards for electronic seals for freight containers has helped this effort. ISO TC 8's work on maritime and supply chain security including electronic port clearance is also of relevance. IMO requests the ISO TC 104 and TC 8 groups to comment on radio spectrum requirements for radio frequency identification devices used on cargo containers for this purpose and inform IMO, as appropriate.

ANNEX 6

GENERAL PRINCIPLES AND STRUCTURED AMENDMENT PROCESS FOR THE IAMSAR MANUAL

GENERAL PRINCIPLES

1. In view of a common misperception that all users require all three volumes, it is suggested to use titles other than Volumes I, II and III that are more self-explanatory.
2. Recommended that three key concepts for updating, supplementing, deleting and amending IAMSAR text should be Modernize, Minimalize and Internationalize.
3. Amendments should be web-based and accessed by a password, perhaps on a subscription basis. Users should be notified at the time of amendment issue. Amendments should be done as whole pages, dated and annotated with an amendment reference number. The ICAO methodology was seen as a good system.
4. Text should be simplified and generalized, with out-of-date and superfluous data deleted. Comprehensive indices should be developed that are electronically hyperlinked. Updating is required to accommodate developments in, e.g., security, AIS, carriage of dangerous goods and aeronautical SAR operations over land.
5. Added value would be derived from inclusion of human factors material, particularly with respect to the performance of SAR service providers.
6. References to various subjects are scattered; subject matter needs to be consolidated. There should be sequential treatment of subject matter in accord with the chronology of actual prosecution of SAR events. IAMSAR-based training material would benefit.
7. There is distinct benefit in soliciting feedback from the user community. A mechanism for this should be found.
8. A mechanism is needed for regular review of material.

STRUCTURED AMENDMENT PROCESS

1. Publish updated edition of IAMSAR regularly – every [5] years.
2. Make urgent amendments in the meantime.
3. Task JWG with keeping IAMSAR under continuing review.
4. Establish JWG editorial group to correspond intersessionally, comprising two aviation and two maritime SAR experts.

5. Task editorial group with working through IAMSAR on the cyclic principle. As soon as one review has been completed, the next begins, and develop recommendations as appropriate.
6. Include cross-referencing of subject matter within and between volumes to enable updates by subject matter.
7. Parties submitting amendment proposals to prioritize submissions as, e.g., “urgent” (requiring an interim amendment to be made), “significant”, and “editorial” and report to JWG accordingly.
8. JWG to recommend urgent, interim amendments to COMSAR and ICAO as required.
9. Other amendments to accumulate and, as coordinated by the JWG, to be passed to COMSAR and ICAO for inclusion in the next edition according to the regular update schedule.
10. Publish interim, urgent amendments on the IMO and ICAO websites for free download.
11. The overall aim of the amendment process would be to ensure that amendments are made efficiently, keeping the whole of the IAMSAR Manual under regular review and up to date, in a manner which is easy for all users to understand and to manage, thus enhancing the maritime SAR process as a whole.

ANNEX 7

LIST OF QUESTIONS ON SAR-RELATED LRIT ISSUES

The following is a list of questions on SAR-related LRIT issues that need to be addressed (with amplifying text proposed by the ICAO/IMO JWG in **bold**):

- (a) How will Rescue Coordination Centres (RCCs) access LRIT data?

All RCCs must have rapid access to, and delivery of, LRIT data free of charge. The current architecture of the LRIT system shows RCCs go through the “associated” LRIT Data Centre to access LRIT information.

- (b) What is the procedure for on-demand LRIT information?

RCCs require an automated system, with appropriate redundancy, which does not involve any real time approval process. The information will be required in “SURPIC” format; e.g., a position and radius to be determined by the RCC.

- (c) What audit recordkeeping and restrictions might be required of SAR authorities who obtain LRIT data for SAR?

SAR Authorities must be able to document after the event, (for LRIT audit purposes), that the LRIT data sought was required for efficient conduct of SAR operations.

- (d) Will there be provisions for collecting LRIT data from ships beyond 1000 miles offshore for SAR?

Each ship will report 4 times each day regardless of where it is. RCCs may require any of this data at any time. All reports should therefore be retained by the LRIT data centre.

- (e) Will Governments limit LRIT data for SAR purposes, and if so, by what mechanism?

The LRIT system includes a provision for a country to specify which other countries can not receive LRIT info on its ships. However, there should be no limitation for SAR purposes.

- (f) What SAR-related guidance needs to be provided to those responsible for the operation of LRIT and to SAR authorities?

SAR Authorities should recognize that the cost of SAR reports will be borne by the system and should therefore exercise restraint in requesting LRIT information. SAR Authorities must only use information derived from LRIT for immediate SAR purposes. Those responsible for the operation of LRIT should be aware of the urgency with which SAR information is sought.

- (g) Will some Governments incorrectly or prematurely assume, as some did when GMDSS was introduced, that LRIT will reduce or eliminate the need for other SRSs for SAR?

There is such a danger, but Governments must understand that there is a need for other Ship Reporting Systems to continue operating, at least for the time being. It will take time for LRIT to become fully operational. There may be scope for review of other reporting systems thereafter.

- (h) What is the process for ICAO access to LRIT information for aeronautical RCCs with maritime SAR regions?

All RCCs – including Aeronautical RCCs – must have rapid access to, and delivery of, LRIT data free of charge. This may be achieved, if desired, by co-operation between maritime and aeronautical RCCs.

- (i) Should development of SAR guidance, e.g., IAMSAR Manual or MSC circular, await experience gained after LRIT has been in operation?

An MSC circular will be needed prior to introduction of LRIT, dealing with, *inter alia*, SAR requirements. Once the LRIT system is established the IAMSAR Manual should be amended.

ANNEX 8**LIST OF IMO DOCUMENTS AND PUBLICATIONS WHICH SHOULD BE HELD BY A MARITIME RESCUE COORDINATION CENTRE (MRCC)***

1 As instructed by the Sub-Committee on Radiocommunications and Search and Rescue (COMSAR), at its fifth session (11 to 15 December 2000), the Secretariat, taking into account the outcome of the eighty-first, eighty-second and eighty-third sessions of the Maritime Safety Committee and the twenty-fifth Assembly, updated the annexed List of IMO documents and publications, previously issued as SAR.7/Circ.7, which are considered essential for use by Maritime Rescue Coordination Centres.

2 COMSAR 5 agreed that SAR.7/Circulars should be included on the IMO website for provisional updating by the Secretariat and would be approved, as amended, by the Sub-Committee.

3 Member Governments are invited to bring the updated list, given in the annex, to the attention of MRCC personnel.

4 This circular revokes SAR.7/Circ.7.

* This circular is also available in English, French and Spanish on the IMO website.

ANNEX

**LIST OF IMO DOCUMENTS AND PUBLICATIONS WHICH SHOULD BE HELD BY A
MARITIME RESCUE COORDINATION CENTRE**

This circular, which is published every two years following the instructions by the Sub-Committee on Radiocommunications and Search and Rescue, provides maritime rescue coordination centres (MRCC), solely for their operational purposes, with a minimum list of IMO documents which are essential for such centres to have in their possession.

The list has been kept to a minimum. It only covers search and rescue and not other tasks which MRCCs are often required to perform. Thus documents concerning the world-wide navigational warning system are only mentioned to the extent that access to the system is essential in the context of some SAR operations.

National Authorities responsible for search and rescue may, of course, add to this list to improve centres' documentation. Governments may replace the documents and publications listed below by national equivalent documents and publications. It is also up to them to decide, depending on the degree of autonomy of maritime rescue sub-centres, whether some documents on the list need not be provided to them.

- * Indicates that the document may not be useful for MRCCs whose search and rescue region (SRR) is entirely in a GMDSS sea area A1 and/or A2.
- ** Indicates that the document is only essential if the MRCC covers an area where the NAVTEX service exists or may be introduced.

REFERENCE	DATE	TITLE
1 Publications		
ID-110 E/F/S	2004	International Convention for the Safety of Life at Sea (SOLAS) (2004 Consolidated Edition)
IB-955 A/C/E/F/R/S	2006	SAR Convention (2006 edition)
IE-960 E/F/S	2007	International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual Volume I (2007 consolidated edition) – Organization and Management
IB-961 E/F/S	2007	International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual Volume II (2007 consolidated edition) – Mission Coordination

IE-962 E/F/S	2007	International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual Volume III (2007 consolidated edition) – Mobile Facilities
IC-970 E	2007	GMDSS MANUAL (2007 edition)
I-969 E		GMDSS Operating Guidance Card
IA-987 E/F/S	2002	IMO Standard Marine Communication Phrases (SMCP) – (including CD-ROM: pronunciation guide) (2002 edition)
IC-951 E/F/S	2005	** NAVTEX Manual (2005 edition)
IA-908 E/F/S	2003	* International SafetyNET Manual (2003 edition)
I-910 E/F/S	2003	Joint IMO/IHO/WMO Manual on Maritime Safety Information (MSI) (2003 edition)
IA-994 E/F/S	2005	International Code of Signals (2005 edition)
IF-200 E/F/S	2006	International Maritime Dangerous Goods Code (IMDG Code) (2006 edition) (incorporating amendment 33-06)
IF-210 E/F/S	2006	IMDG Code Supplement (2006 edition)
2 Unpublished documents		
Res. A.705(17)	06/11/91	Promulgation of Maritime Safety Information (MSI)
Res. A.706(17)	06/11/91	World-Wide Navigational Warning Service
Res. A.814(19)	23/11/95	Guidelines for the Avoidance of False Distress Alerts
Res. A.855(20)	27/11/97	Standards for onboard helicopter facilities
Res. A.856(20)	27/11/97	Guidance to Administrations on development of a shore-based SAR telecommunication infrastructure
Res. A.887(21)	25/11/99	Establishment, updating and retrieval of the information contained in the registration databases for the Global Maritime Distress and Safety System (GMDSS)
Res. A.894(21)	25/11/99	International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual

Res. A.919(22)	29/11/01	Acceptance and implementation of the International Convention on Maritime Search and Rescue, 1979, as amended
Res. A.920(22)	29/11/01	Review of safety measures and procedures for the treatment of persons rescued at sea
Res. A.949(23)	05/12/03	Guidelines on places of refuge for ships in need of assistance
Res. A.950(23)	05/12/03	Maritime Assistance Services (MASs)
Res. A.954(23)	05/12/03	Proper use of VHF channels at sea
Res. A.999(25)	29/11/07	Guidelines on voyage planning for passenger ships operating in remote areas
Res. A.1001(25)	29/11/07	Criteria for the provision of mobile-satellite communication systems in the Global Maritime Distress and Safety System (GMDSS)
Res. A.1002(25)	29/11/07	Piracy and armed robbery against ships in waters off the coast of Somalia
Res. MSC.131(75)	21/05/02	Maintenance of a continuous listening watch on VHF channel 16 by SOLAS ships whilst at sea after 1 February 1999 and installation of VHF DSC facilities on non-SOLAS ships
Res. MSC.153(78)	20/05/04	Adoption of amendments to the International Convention for the Safety of Life at Sea, 1974, as amended (relating to SAR services)
Res. MSC.167(78)	20/05/04	Guidelines on the treatment of persons rescued at sea
Res. MSC.199(80)	16/05/05	Adoption of amendments to provision of radio services for the Global Maritime Distress and Safety system (GMDSS) – (Resolution A.801(19))
COMSAR/Circ.3	19/04/96	Relations between NAVAREA Coordinators and Rescue Coordination Centres
COMSAR/Circ.12	06/06/97	Relays of distress alerts by digital selective calling
COMSAR/Circ.13	06/03/98	Shore-to-ship communications during a distress
COMSAR/Circ.19	11/05/99	* Distress priority communications for RCC from shore-to-ship via Inmarsat

COMSAR/Circ.22	20/06/00	Guidance on data fields for SAR databases
COMSAR/Circ.23	20/06/00	Guidance for central alerting posts (CAPs)
COMSAR/Circ.25	15/03/01	Procedure for responding to DSC distress alerts by ships
COMSAR/Circ.27	12/10/01	Data format for a new combined SAR.2 and SAR.3 circular concerning information on the current availability of SAR services
COMSAR/Circ.29	27/05/02	Guidance for the voluntary use of the standardized questionnaires and formats for reporting false alerts in collecting data on false alerts
COMSAR/Circ.31	06/02/03	Guidance for Mass Rescue Operations (MROs)
COMSAR/Circ.33	26/02/04	GMDSS Coast Station Operator's Certificate (CSOC) Model Course
COMSAR/Circ.34	21/05/04	Clarification on the use of NAVTEX B ₃ B ₄ characters = 00 and NAVTEX service areas
COMSAR/Circ.35	21/05/04	Recommendations on medium frequency/high frequency (MF/HF) digital selective calling (DSC) test calls to coast stations
COMSAR/Circ.36	18/02/05	Broadcast of warnings for Tsunamis and other natural disasters
COMSAR/Circ.37	28/02/05	Guidance on minimum communication needs of Maritime Rescue Coordination Centres (MRCCs)
COMSAR.1/Circ.40	09/03/07	List of NAVAREA Coordinators
COMSAR.1/Circ.41	26/10/07	Analysis of Maritime Safety Information Promulgated via the EGC SafetyNET system and recommendations on improving its quality
COMSAR.1/Circ.42	28/02/08	List of Coast Earth Station (CES) Operation Coordinators in the Inmarsat System
GMDSS.1/Circ.9	30/04/07	Master Plan of shore-based facilities for the GMDSS (GMDSS Master Plan)
MSC/Circ.622/Rev.1	16/06/99	Recommendations to Governments for preventing and suppressing piracy and armed robbery against ships

MSC/Circ.623/Rev.3	29/05/02	Guidance to shipowners and ship operators, shipmasters and crews on preventing and suppressing acts of piracy and armed robbery against ships
MSC/Circ.685	05/06/95	Amendments to resolution A.706(17) – World-Wide Navigational Warning Service
MSC/Circ.750	13/06/96	Amendments to resolution A.706(17) – World-Wide Navigational Warning Service
MSC/Circ.805	06/06/97	Guidance for the use of radio signals by ships under attack or threat of attack from pirates or armed robbers
MSC/Circ.892	16/12/98	Alerting of search and rescue authorities
MSC/Circ.895	04/02/99	Recommendation on helicopter landing areas on ro-ro passenger ships
MSC/Circ.896/Rev.1	12/06/01	Interim measures for combating unsafe practices associated with the trafficking or transport of migrants by sea
MSC/Circ.957	26/06/00	Amendments to resolution A.706(17) – World-Wide Navigational Warning Service
MSC/Circ.959	20/06/00	Interim procedures for MRCCs on receipt of distress alerts
MSC/Circ.960	20/06/00	Medical assistance at sea
MSC/Circ.1039	28/05/02	Guidelines for shore-based maintenance of satellite EPIRBs
MSC/Circ.1040	28/05/02	Guidelines on annual testing of 406 MHz satellite EPIRBs
MSC/Circ.1042	28/05/02	List of contents of the “Emergency Medical Kit/Bag” and medical consideration for its use on ro-ro passenger ships not normally carrying a medical doctor
MSC/Circ.1043	31/05/02	Guidance on ships’ daily reporting of their positions to their companies
MSC/Circ.1073	10/06/03	Revised directive for maritime rescue coordination centres (MRCCs)
MSC/Circ.1078	06/06/03	Guidelines to Administrations on reporting false alerts
MSC/Circ.1079	10/07/03	Guidelines for preparing plans for co-operation between search and rescue services and passenger ships (in accordance with SOLAS regulation V/7.3)

MSC/Circ.1105	25/02/04	Guidance on responsibility and liability issues related to the use of the emergency medical kit/bag and evaluation of its use in emergency incidents
MSC/Circ.1172	23/05/05	Identification of passenger ships, other than ro-ro passenger ships, which should benefit from being equipped with the Emergency Medical Kit/Bag (EMK)
MSC.1/Circ.1174	20/05/05	Basic safety guidance for oceanic voyages by non-regulated craft
MSC.1/Circ.1183	31/05/06	Guidelines on the provision of external support as an aid to incident containment for SAR Authorities and others concerned
MSC.1/Circ.1184	31/05/06	Enhanced contingency planning guidance for passenger ships operating in areas remote from SAR facilities
MSC.1/Circ.1186	01/06/06	Guidelines on the training of SAR service personnel working in major incidents
MSC.1/Circ.1208	22/05/06	Promoting and verifying continued familiarization of GMDSS operators on board ships
MSC.1/Circ.1210	11/07/06	Cospas-Sarsat International 406 MHz Beacon Registration Database
MSC.1/Circ.1218	15/12/06	Guidance on exchange of medical information between telemedical assistance services (TMAS) involved in international SAR operations
MSC.1/Circ.1248	16/10/07	Minimizing delays in search and rescue response to distress alerts
MSC.1/Circ.1249	16/10/07	Adoption of amendments to the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual
MSC.1/Circ.1252	22/10/07	Guidelines on annual testing of the Automatic Identification System (AIS)
SAR.8/Circ.1	24/02/04	Global SAR Plan containing information on the current availability of SAR services
SAR.8/Circ.1/Corr.1	06/08/04	Global SAR Plan containing information on the current availability of SAR services
SAR.8/Circ.1/Corr.2	22/03/05	Global SAR Plan containing information on the current availability of SAR services

SAR.8/Circ.1/Corr.3	20/10/05	Global SAR Plan containing information on the current availability of SAR services
SAR.8/Circ.1/Corr.4	21/04/06	Global SAR Plan containing information on the current availability of SAR services
SAR.8/Circ.1/Corr.5	23/04/07	Global SAR Plan containing information on the current availability of SAR services
SAR.7/Circ.8	28/02/08	List of IMO documents which should be held by an MRCC

ANNEX 9**TERMS OF REFERENCE AND PROVISIONAL AGENDA FOR THE FIFTEENTH SESSION OF THE ICAO/IMO JOINT WORKING GROUP****TERMS OF REFERENCE**

- 1 This Joint Working Group (JWG) is established to develop recommendations and information to support the IMO Sub-Committee on Radiocommunications and Search and rescue and/or ICAO, as appropriate, on any matters pertinent to harmonization of international maritime and aeronautical SAR.
- 2 The JWG will meet as necessary, subject to approval of the IMO Maritime Safety Committee and ICAO, with meetings supported by IMO and ICAO on an alternating basis.
- 3 Invitations to participate in the JWG will be submitted to respective Member and Contracting States by both IMO and ICAO respectively.
- 4 Language services will not be provided during JWG meetings.
- 5 JWG meetings will generally take place annually about midway between meetings of the IMO Sub-Committee on Radiocommunications and Search and Rescue.
- 6 The JWG will provide an active interface between IMO and ICAO for harmonization of maritime and aeronautical SAR plans and procedures in accordance with the 1985 MoU between IMO and ICAO, and with Resolution 1 of the 1979 International Conference on Maritime Search and Rescue.
- 7 The JWG will review and develop proposals relating to harmonization in various matters including:
 - (a) provisions of conventions, plans, manuals and other documents affecting SAR;
 - (b) SAR operational principles, procedures and techniques;
 - (c) SAR system administration, organization and implementation methods;
 - (d) RCC/RSC equipment and facility designations and standards;
 - (e) SAR communications; and
 - (f) SAR personnel staffing and training.
- 8 Need for JWG continuation will be reviewed by IMO and ICAO on an ongoing basis; the JWG will be discontinued when either organization concludes the work is no longer cost effective, and formally informs the other of its decision to discontinue.

PROVISIONAL AGENDA JWG/15

- 1 Adoption of the agenda
- 2 Decisions of ICAO and IMO bodies related to the Joint Working Group work:
 - .1 briefing on the outcome of COMSAR 12 and MSC 83 and MSC 84; and
 - .2 briefing on outcome of ICAO activities.
- 3 Provisions of conventions, plans, manuals and other documents affecting SAR:
 - .1 status of the Maritime SAR Convention and Annex 12 to the Convention on International Civil Aviation;
 - .2 alignment of the IMO Area SAR Plans, GMDSS Master Plan and ICAO Regional Air Navigation Plans;
 - .3 Progress report on work by the ANC and advancing provisions pertained to carriage of airborne equipment for civil aviation search and rescue alerting systems; and
 - .4 amendments to the IAMSAR Manual, including making more usable by training – institutions.
- 4 SAR operational principles, procedures and techniques:
 - .1 development of operational guidelines for safe and effective rescue operations, taking account of previous experiences;
 - .2 mass rescue operations, taking account of experiences from major disasters;
 - .3 medical assistance in SAR services;
 - .4 effects of measures to enhance maritime and aeronautical security on SAR services, including the implementation of the Long-range Identification and Tracking (LRIT) system; and
 - .5 development of procedural strategies for the practical provision of SAR services.
- 5 SAR system administration, organization and implementation methods:
 - .1 regional SAR databases, i.e. SDP, facilities;
 - .2 development of guidelines for subregional SAR organization;
 - .3 quality assurance, improvement, needs assessment, risk management (including subregional organizations), safety management and resource allocation;

- .4 implementation and operation of the “International SAR Fund”; and
 - .5 evaluating the effect of various technical co-operation projects in co-operation with relevant governments, organizations and agencies with a view to assess their impact on implementing and maintaining SAR services.
- 6 RCC/RSC equipment and facility designations and standards:
- .1 establishment of RCCs and in particular JRCCs; and
 - .2 status of AIS and related systems in aeronautical and maritime SAR.
- 7 SAR communications:
- .1 status of the GMDSS;
 - .2 status of aeronautical communications systems for distress and SAR;
 - .3 status of the Cospas-Sarsat system;
 - .4 future trends in SAR communications; and
 - .5 non-GMDSS Communications systems which may be used for distress alerting.
- 8 SAR personnel staffing and training:
- .1 development of RCC Staff Certificates; and
 - .2 development of joint SAR courses based on the IAMSAR Manual.
- 9 Any other business
- 10 Draft terms of reference and provisional agenda for JWG/16
- 11 Reports to ICAO and the COMSAR Sub-Committee

ANNEX 10**LIAISON STATEMENT TO ITU, CIRM, IEC AND IALA****AIS SAFETY RELATED BROADCAST MESSAGES USED FOR DISTRESS PURPOSES**

Certain models of class A Automatic Identification Systems (AIS) provided for preconfigured safety related messages, which have been used, without any procedural basis, to convey text messages indicating distress situations. A similar situation is developing with respect to class B equipment. Although most class B AIS are not required to provide short range messages, and most do not, those that do must use preconfigured messages. AIS standards give no guidance as to what predefined messages should be used, in effect leaving it to manufacturers and Administrations to decide.

IMO is of the view that the use of predefined distress text messages by AIS devices should be prohibited and not be considered a part of any distress and safety system at this time. While the GMDSS is foreseen to be subject to continuing improvements, and perhaps the use of technologies such as AIS may be considered in future, the current infrastructure, together with AIS technological limitations, do not support use of the text messaging facilities as part of the GMDSS.

Shore-based establishments may not be capable of receiving these text-type distress messages and may not take the same responsive action as if an alert had been received over GMDSS equipment. Reliance on AIS text messaging in distress situations could result in untimely delays and increase the probability of fatalities.

IMO intends to issue a circular to mariners describing the limitations of using AIS predefined distress text messages in distress situations.

ANNEX 11

DRAFT MSC CIRCULAR

**ADOPTION OF AMENDMENTS TO THE INTERNATIONAL AERONAUTICAL
AND MARITIME SEARCH AND RESCUE (IAMSAR) MANUAL**

1 The Maritime Safety Committee (MSC), at its [eighty fifth session (26 November to 5 December 2008)], having been informed that the International Civil Aviation Organization (ICAO) had approved the amendments to the IAMSAR Manual prepared by the Joint ICAO/IMO Working Group on Harmonization of Aeronautical and Maritime Search and Rescue, and that they had been endorsed by the Sub-Committee on Radiocommunications and Search and Rescue (COMSAR) at its twelfth session (7 to 11 April 2008), adopted the annexed amendments in accordance with the procedure laid down in resolution A.894(21).

2 The Committee decided that the amendments should enter into force on [1 June 2009].

ANNEX

SECTION 1

PROPOSED AMENDMENTS TO IAMSAR MANUAL – VOLUME I

1 Abbreviations and Acronyms

- Add the following text on page viii:
“TMAS... Telemedical Assistance Service”

2 Glossary

- Add the following text on page xi:
“**Telemedical Assistance Service (TMAS)** A medical service permanently staffed by doctors qualified in conducting remote consultations and well versed in the particular nature of treatment on board ship.”

3 Chapter 1

- Replace the existing paragraph 1.4.1 with the following:
“1.4.1 Any SAR system should be structured to provide all SAR services:
 - Receive, acknowledge, and relay notifications of distress from alerting posts;
 - Coordinate search response;
 - Coordinate rescue response and delivery of survivors to a place of safety; and
 - Provide medical advice, initial medical assistance or medical evacuation.”
- Delete paragraph 1.4.3.

4 Chapter 2

- Add the following text in paragraph 2.1.2 after “– SAR facilities, including SRUs with specialized equipment and trained personnel, as well as other resources which can be used to conduct SAR operations;”:
“- medical advice and medical assistance and evacuation services;”
- Add the following text in paragraph 2.3.7 to **Required** column as the last two items:
“ability to coordinate provision of medical advice
ability to coordinate provision of medical assistance or evacuation”

- Add a new paragraph 2.5.6:

Add new heading **Medical Advice and Medical Assistance**

“2.5.6 The International Convention on Maritime Search and Rescue provides for parties to the Convention to provide, on request from Masters of ships, medical advice and initial medical assistance and, as required, to make arrangements for medical evacuations for patients. An RCC should establish a relationship with a maritime Telemedical Assistance Service (TMAS) to ensure that medical advice can be provided to Masters at sea within its SRR 24 hours a day. The RCC should have the means to coordinate medical assistance and evacuation in consultation with a TMAS. It is desirable to have a doctor or paramedic who has been briefed by the TMAS on board the evacuation craft. The RCC may establish contractual arrangements with a suitably recognized medical authority to provide this Telemedical Assistance Service. A sample text of a contractual arrangement between an RCC and a TMAS is at Appendix N.”

- Amend in paragraph 2.7.1 “Medical assistance” to read “Medical facilities”

5 Chapter 4

- Replace the existing paragraph 4.2.3 with the following:

“4.2.3 Publications which can be used to assist in overcoming language barriers and communication difficulties between vessel and aircraft crews, survivors and SAR personnel include the International Code of Signals, the IMO Standard Marine Communication Phrases (Assembly resolution A.918(22)), Annex 10 to the Convention on International Civil Aviation, and PANS ATM (ICAO Document 4444). These documents should be included in RCC libraries and be understood by the staff who should be able to comprehend and transmit messages using these phrases. Ships should carry these documents. SRUs should carry the International Code of Signals.”

- Add at the end of paragraph 4.7.1 the following:

“RCCs should be able to communicate 24 hours a day with a designated Telemedical Assistance Service (TMAS) to coordinate the provision of medical advice and medical assistance and to arrange for medical evacuations from vessels at sea.”

6 Chapter 6

- Replace existing paragraph 6.4.3 from the title “Using SAR Committees to Improve SAR Services” to “...by efforts such as the following:” with the following:

“6.4.3 An effective process for SAR coordination is the establishment and use of SAR Coordinating Committees (SCCs) comprising SAR system stakeholders. These can be established at SAR agency, national, or regional level and, ideally, at all three levels. SAR agency SCCs should deal with local operational SAR issues and have the ability to refer matters higher if required. Committees established

at a national level may consider strategic SAR policy matters and should have the ability to take matters to their respective governments for consideration. Regional SCCs should be able to refer SAR matters of a regional nature to their incorporated national committees for consideration. The establishment of these SAR committees can improve and support the SAR system in a number of ways, including:

- develop and recommend national strategic policy to their respective governments;”

7 Appendix C

- Amend C.1.1 (g) to read: *Health Departments*. Hospital and first aid facilities, ambulances and medical stations in remote areas, Telemedical Assistance Services (TMAS).

8 Appendix G

- replace existing paragraph G.7.1 in section G.7 with:
“G 7.1 The primary systems now used for SOLAS compliance are Cospas-Sarsat and Inmarsat.”
- add new paragraph G.7.5 after G 7.4, as follows:
“G.7.5 New satellite systems are emerging which can relay distress alerts. Many vessels are equipped with systems that provide comprehensive online connections to Internet, voice, facsimile and data communications for such functions as online E-mail, Short Message System (SMS), video conferencing and medical examination and reporting. These commercial satellite systems are not primarily designed for alerting but may be used for subsequent SAR communications between ships or aircraft and RCCs or RSCs, or as a link to the On Scene Coordinator.”

9 Appendix H

- Replace the existing text with the following:

“National Self-Assessment on Search and Rescue

Chapter 1 – GENERAL SYSTEM CONCEPT

1. Is the Government party to the following Conventions:

- (i) Convention on International Civil Aviation, 1944?
- (ii) International Convention on Maritime Search and Rescue, 1979?
- (iii) International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended?
- (iv) Convention on the High Seas, 1958?
- (v) United Nations Convention on the Law of the Sea (UNCLOS), 1982?

2. Has the State established an entity, which provides on a 24-hour basis, search and rescue (SAR) services within its territories to ensure that assistance is rendered to persons in distress?
 - (a) If no, has the State arranged with another State or group of States to provide SAR services?
3. Which government agencies have authority and responsibility for coordination of aeronautical SAR?
4. Where is this authority and responsibility described (law, regulation, agreement, etc.)?
5. Is the same agency responsible for coordinating aeronautical SAR over both land and sea?
6. Which government agencies have authority and responsibility for coordination of maritime SAR?
7. Where is this authority and responsibility described? (law, regulation, agreement, etc.)?
8. Has the State established a joint RCC to coordinate aeronautical and maritime SAR operations?
9. Does the State ensure the closest practicable coordination between the centres where separate aeronautical and maritime rescue coordination centers (RCCs) serve the same area?
10. Has the State ensured the closest practicable coordination between the relevant aeronautical and maritime authorities to provide for the most effective and efficient SAR services?
11. Does the State have a national SAR Plan, which describes the roles of all government and non-government organizations which have resources that can support SAR?
12. Have there been any problems encountered when working with RCCs outside your region?

If so, have steps been taken to solve these problems?
13. Have ICAO and IMO been provided with up-to-date information on your RCCs, RSCs, SAR resources and areas of responsibility?

Chapter 2 – SYSTEM COMPONENTS

- 14.(i) Does your State have both aeronautical and maritime SAR regions (SRRs) or SAR subregions (SRSs) established?
- 14.(ii) Do the geographical limits of your State's aeronautical and maritime SRRs or SRSs coincide?
- 14.(iii) If your State has an aeronautical Flight Information Region (FIR), does your aeronautical SRR have the same limits?
15. Have the aeronautical SRR or SRS limits been formally agreed to by neighbouring countries or jurisdictions?
16. Have the maritime SRR or SRS limits been formally agreed to by neighbouring countries or jurisdictions?
17. Are there any gaps, overlaps, or size or shape problems with national SRRs or SRSs?
18. Has the State established a RCC in each search and rescue region (SRR)?
19. Do your RCCs regularly work with other RCCs outside your region?
20. Do provisions exist to keep maritime SAR authorities informed of aeronautical distress situations, and to coordinate SAR responsibility to them when an aircraft has an actual or potential ditching at sea?
21. Has the State made arrangements for the use of SAR units and other available facilities to assist any aircraft or vessels or their occupants that are, or appear to be, in a state of emergency?
22. Are RCC(s) or RSC(s) assigned to perform other tasks which might detract from their ability to handle SAR responsibilities?
23. Are emergency plans and recovery resources in place at all airports located near water for rescue of survivors in the water?
24. Do facilities that serve as alerting posts for receiving aeronautical and maritime distress information operate on a 24-hour basis?
25. Does each RCC and RSC have full information about the capabilities (range, number of persons they could rescue, alert status, launch authority point of contact, etc.) for all the primary rescue units in their area of responsibility?
26. Does each RCC or RSC have an operations manual which provides procedures and guidance material for handling all foreseeable SAR situations?

27. Do your RCC(s) and RSC(s) use international systems that assist SAR, e.g., AMVER, Cospas-Sarsat, computer assisted search planning?
28. Can your RCC(s) monitor progress of a SAR response and adjust search planning if necessary?
29. Can the RCC(s) or RSC(s) order the deployment of all primary SAR units?
 - (a) If not, does the coordination for use of SAR resources take place in a timely manner?
30. To what extent have voluntary SAR resources, including privately-owned aircraft and boats, fishing vessels, industry-owned helicopters and boats and professional organizations been organized?
31. Do the RCCs and RSCs operation manuals include guidance on use of voluntary SAR resources?
32. Do SAR units in your State have special equipment for medical evacuations?

Chapter 3 – TRAINING, QUALIFICATION, CERTIFICATION AND EXERCISES

33. Has the State ensured that each RCC and RSC has a sufficient workforce skilled in SAR coordination and operational functions?
34. Have written job descriptions been developed for all staff?
35. Has the State ensured that each RCC and, if appropriate, RSC established a training policy and programme for its staff?
36. Is each RCC or RSC staff fully trained to do the following:
 - (i) Recognize the stages and phases of a SAR mission?
 - (ii) Determine search datum, search areas, and probability of success?
 - (iii) Account for aerospace and ocean drift?
 - (iv) Develop search action plans and rescue action plans?
 - (v) Allocate resources?
 - (vi) Arrange air escorts, ships and other assistance for aircraft situations involving potential ditching?
 - (vii) Carry out international SAR obligations?

37. Does the State provide for regular training of its SAR personnel and arrange appropriate SAR exercises?
38. Do crews of primary rescue units participate in regular SAR-related training or exercises?
39. Is there a formal planning and evaluation process for these exercises?
40. Do your RCCs or RSCs carry out exercises involving other RCCs and RSCs and rescue units on a regular basis?
41. Does each element in the SAR organization regularly evaluate its staff training status and take steps to correct all identified training needs?
42. Are training records or files maintained for the RCC staff?
43. Are complete records (sufficient to reconstruct the incident) maintained of all SAR events?
44. Are SAR case records used to analyse and improve the SAR system?
45. Do SAR case records satisfy legal requirements?

Chapter 4 – COMMUNICATIONS

46. Are there rapid, reliable means for communications between RCCs and between RCCs and RSCs?
47. Does your national landline communications system provide full coverage of your State and rapid, reliable service?
48. Do your RCC(s) and RSC(s) have reliable radio communications capabilities covering their entire area(s) of responsibility for working with ships, aircraft and SAR units?
49. Do your RCC(s) or RSC(s) use satellite communications?
50. Do the RCC(s) have continuous and capable English language capabilities?
51. Are RCC personnel involved in the conduct of radiotelephony communications proficient in the use of the English language?
52. Which categories of aircraft and ships registered in your State are required to carry 121.5 MHz radio distress beacons, 406 MHz beacons, or EPIRBs?
53. Are 406 MHz beacon registrations maintained in a database?
54. Is the database maintained for ELT, EPIRB and PLB 406 MHz distress beacons?

55. Is that database available on a 24-hour basis to SAR authorities?
56. Has the State designated an H24 SAR point of contact (SPOC) for the receipt of Cospas-Sarsat distress data?
57. Has the State made arrangements for further distribution from the SPOC to the proper authorities of the ELT, EPIRB and personal locator beacon (PLB) distress beacon alerts?
58. Is the Aeronautical Fixed Telecommunication Network (AFTN) or Aeronautical Fixed Network (AFN) co-located or readily accessible to your RCC(s) and RSC(s)?
59. Is your State implementing the provisions of the IMO Global Maritime Distress and Safety System (GMDSS)?
60. Do the RCC and RSC operations manuals include procedures for establishing communications with civil ships and aircraft?
61. Do ships and aircraft that are used for SAR have communications and electronic direction-finding capabilities covering all frequencies likely to be used?
62. Do ships and aircraft that are used for SAR have accurate navigation systems?
63. What means are most often used to notify your RCC(s) or RSC(s) of a distress?
64. What means are used to alert and inform rescue units of a distress, and to direct them?
65. Do all SAR units have mutually compatible communications?
66. Is your State planning to change communications or direction-finding capabilities in any of the following areas?
 - (i) Medium frequency (MF)
 - (ii) High frequency (HF)
 - (iii) VHF-FM
 - (iv) VHF-AM
 - (v) UHF
 - (vi) Telephone
 - (vii) Telex
 - (viii) Satellite communications
67. Do your RCC(s) and RSC(s) have procedures for providing timely and competent medical assistance and advice to ships?

Chapter 5 – SYSTEM MANAGEMENT

68. Which national agencies or organizations are responsible for:
- (i) Aircraft registration and safety?
 - (ii) Air traffic safety?
 - (iii) Investigation of aviation accidents and incidents?
 - (iv) Maritime vessel registration and safety?
 - (v) Investigation of maritime accidents and incidents?
 - (vi) Regulation and enforcement of radio frequency usage?
 - (vii) Serving as the national SAR point of contact for receipt of Cospas-Sarsat alert data?
 - (viii) Personal Locator Beacon usage?
 - (ix) SAR on the ground?
 - (x) Managing national civil emergencies?
 - (xi) National defense?
 - (xii) Providing paid SAR resources?
 - (xiii) Providing volunteer SAR resources?
 - (xiv) State law enforcement?
 - (xv) Emergency medical advice and care?
 - (xvi) Medical evacuations?
 - (xvii) Supporting participation by ships in ship reporting systems, such as the Automated Mutual-assistance Vessel Rescue (AMVER) system?
69. Is there a formal national SAR Coordinating Committee to coordinate the actions of the organizations indicated in answers to question 70?
70. Has the State designated as SAR units elements of public or private services suitably located and equipped for SAR operations?
71. Does the State coordinate its SAR organization with those of neighbouring States?
72. Has each RCC in the State prepared detailed plans of operation for the conduct of SAR operations within its SRR?
73. Does your State have formal SAR agreements for inter-agency coordination and for co-operation with neighbouring countries?
74. Do the RCC(s) and RSC(s) coordinate with hospitals to receive all personnel evacuated due to medical emergencies?
75. Have formal procedures been developed for providing medical assistance and advice and for making medical evacuation decisions?
76. Does your State maintain a statistical database on SAR events?

Chapter 6 – IMPROVING SERVICES

77. Does the State permit, subject to such conditions as may be prescribed by its own authorities, entry into its territory of SAR units of other States for the purpose of searching for, and the rescue of, survivors of aviation and maritime incidents and accidents?
78. Does the State authorize its RCCs to provide, when requested, assistance to other RCCs, including assistance in the form of aircraft, vessels, or equipment?
79. Has the State arranged for all aircraft, vessels and local services and facilities which do not form part of the SAR organization to co-operate fully with the latter in SAR and to extend any possible assistance to the survivors of aviation and maritime accidents?
80. Does your State send delegates to participate directly in meetings of IMO and ICAO that deal with SAR issues?
81. How do your SAR managers stay informed on decisions, and outcomes of meetings conducted by ICAO and IMO?"

10 Appendix J

- Add new paragraph (a) in “**2. OBJECTIVES**” as follows:
 - “a) Provide a standing national forum that can develop and recommend national strategic SAR policy for government consideration.”
- Then renumber subsequent subparagraphs.

11 Insert new Appendix []

- Insert the following text:

Appendix []

“SAMPLE CONTRACT BETWEEN RCC AND TMAS FOR THE PROVISION OF MEDICAL ADVICE AND ASSISTANCE TO MASTERS OF SHIPS AT SEA

1 Roles and functions of the Telemedical Assistance Service (TMAS) Provider and the Rescue Coordination Centre (RCC)

1.1 General

- 1.1.1 The International Convention on Maritime Search and Rescue 1979 gives the ability for parties to the Convention to provide on request from Masters of ships, medical advice, initial medical assistance or arrange medical evacuations for patients.

1.1.2 The RCC is responsible for search and rescue services which include the organization of medical advice and assistance. The RCC has designated one or more providers of this service (*Organization*) at (*Location*) is one of the designated (*Country*) Telemedical Assistance Service (TMAS).

1.1.3 The procedures and practices defined in this document establish Procedures and Practices, including lines of responsibility for both the TMAS Provider and the Rescue Coordination Centre in the coordination and provision of medical advice and assistance to ships at sea and the provision of medical advice to the RCC in support of search and rescue.

1.1.4 Further guidance on Medical Assistance at Sea, Importance of the Role of Telemedical Assistance Services; and Medical Assistance at Sea and maritime radio communications can be found in IMO MSC/Circ.960.

1.2 Roles and responsibilities

1.2.1 Masters of ships

1.2.1.1 The Masters of ships are ultimately responsible for the health and safety of crew and passengers on board their ships.

1.2.2 Maritime Communications Station

1.2.2.1 The maritime communications station is responsible for:

- a. responding to any request for medical advice or assistance;
- b. providing an effective communications interface between Masters of ships at sea and the TMAS; and
- c. in the event of a MEDEVAC being required, requesting and passing all necessary information to the RCC.

1.2.3 Telemedical Assistance Service (TMAS)

1.2.3.1 The TMAS is responsible for the following functions:

- a. Be available 24 hours per day, 7 days a week to receive requests from vessels at sea and/or the RCC for the provision of medical advice;
- b. Making prompt medical assessments of remote patients and providing prompt advice to ships' Masters in relation to medical treatment to be administered to those patients, generally by non-medical personnel;
- c. Providing prompt medical specialist advice when required;
- d. Where it is essential for the safety of the patient, taking into account all circumstances, making recommendations to ship Masters and to the RCC for evacuation of patients to shore-based facilities or to another vessel;

- e. Advising the RCC of any special medical requirements or constraints that may affect the type and equipment fit of the proposed recovery platform for evacuation of patients to shore-based facilities or to another vessel;
- f. Providing briefing to the paramedic or doctor who may accompany the MEDEVAC vehicle, to provide continuity of medical attention and also consult on evacuation procedures and constraints;
- g. When a patient is to be evacuated to a shore-based medical facility or the Master of a ship has decided to divert to a port, consulting with the RCC and the evacuating craft and recommending a medical facility to which the patient should be evacuated. Make appropriate arrangements with the medical facility to receive the patient;
- h. Ensuring, through liaison as required, that the receiving hospital is briefed about the patient's condition and treatment;
- i. As necessary for the purpose of communicating with a ship's Master or crew, arranging access to interpreter services where possible. – Note that this interpreter service may be arranged by the RCC;
- j. Providing medical advice to the RCC with respect to the prospects for survival/injury of persons subject to search and rescue in both land and sea environments; and
- k. Providing statistical information, to the RCC, on an annual basis in relation to the services performed.

1.2.4 Rescue Coordination Centre

1.2.4.1 The RCC is responsible for the following functions:

- a. Ensuring that ships' Masters have the necessary information available to be able to contact the TMAS;
- b. Coordinating any MEDEVAC when requested, assisted by medical advice provided from the TMAS;
- c. Arranging of surface (water and land) or air assets necessary to conduct a MEDEVAC to achieve delivery to the medical facility recommended by the TMAS. As an integral part of the evacuation, the RCC will, where possible, organize to have paramedics on board the recovery platform;
- d. Where evacuation is required and requested, coordinating with the ships' Masters for meeting or receiving the rescue platform and patient transfer arrangements;
- e. Where the TMAS recommends the patient is landed urgently, and the Master requests assistance, the RCC will advise the ship's Master and the TMAS of suitable port(s) based on operational assessment only; and

- f. As necessary for the purpose of communicating with a ship's Master or crew, arranging access to interpreter services where possible.

2 Practices and Procedures

2.1 General

2.1.1 The TMAS can expect to receive requests for assistance from:

- a. any ships in surrounding waters; and
- b. Country-flag and foreign ships outside that country's designated Search and Rescue Region.

2.1.2 This section addresses procedures to be adopted in response to three main conditions:

- a. medical advice to ships;
- b. diversion of a ship to another port; and
- c. MEDEVAC.

2.1.3 When the TMAS receives a request for medical assistance it must:

- a. promptly undertake a remote medical assessment of the patient; and
- b. promptly provide appropriate medical advice to the ship's Master on the treatment to be administered (generally by non-medical personnel).

2.1.4 Where the condition of the patient is such as to warrant more urgent and specialized care, the TMAS may also decide to make a recommendation to a ship's Master that:

- a. the patient should be landed urgently/as soon as possible to enable more expert treatment of the patient; or
- b. the patient should be evacuated immediately/as soon as possible to a land-based medical facility.

2.2 Medical advice to ships

2.2.1 On receipt of a request for medical advice from a ship's Master, the TMAS will consult with the ship's Master as necessary and provide the appropriate medical advice.

2.2.2 Requests for medical advice received directly by or on-passed to, the TMAS from ships do not require referring or reporting to the RCC unless evacuation is recommended.

- 2.2.3 In the event that the TMAS suspects that the medical problem may have border control implications:
- a. **TMAS.** The TMAS must inform the RCC of the:
 - .1 Name of the ship;
 - .2 Name(s) of the affected person;
 - .3 the medical condition; and
 - .4 probable port of arrival.
 - b. **The RCC.** The RCC must inform the appropriate border control agencies.

2.3 Diversion of a ship to port

- 2.3.1 In those cases where it is determined by the ship's Master, after medical consultation with the TMAS that diversion to a port other than the next port of call is or may be necessary:
- 2.3.2 The TMAS must inform the RCC that diversion is or may be undertaken.
- 2.3.3 The RCC must, on request from the Master of the ship, render necessary assistance to the Master of the ship. This may include advice as to available ports and advising the ship's agent, port, medical and border control authorities at the port of diversion.

2.4 MEDEVAC

- 2.4.1 The decision to MEDEVAC a patient is a matter for the ship's Master to decide on the basis of medical advice that is provided by the TMAS. Consideration must be given to other factors, including the environmental conditions (weather, sea state, etc.) that may prevail at the time of possible extraction and the ship's geographical location. The availability and type of recovery platform(s) may also affect the strategy or decision to MEDEVAC. Accordingly, close and ongoing consultation may be required between the ship's Master, the ship's agent, the TMAS, the RCC, the operating agency/crew of the rescue platform and the receiving medical facility.
- 2.4.2 Medical evacuations are generally undertaken by helicopter, possibly supported by a fixed wing aircraft. The TMAS must take into account that such evacuations can be carried out only when the ship is within helicopter's flying range from land and only when a suitably equipped helicopter is available. It may be possible under conditions of extreme medical urgency for surface and air assets to be used (ship as a staging landing platform plus helicopter), however the availability of such assets cannot be assumed or guaranteed.
- 2.4.3 Where the ship's Master requires a MEDEVAC, and need of it is supported by the TMAS, the ship's Master may communicate with the RCC directly or through a Maritime Communications Station without further reference to the TMAS. In this event the Maritime Communications Station or the RCC will ascertain information which may include:

- .1 patient's name and nationality;
- .2 patient's condition;
- .3 Master's name and nationality;
- .4 vessel name, flag and IMO number;
- .5 call sign;
- .6 ship's position;
- .7 shipowner/operator and his country; and
- .8 nearest port and ETA.

2.4.4 The RCC must:

- a. Consult with the TMAS for medical advice that may affect:
 - (a) the type of rescue platform provided,
 - (b) any medical constraints or requirements that may affect the point and method of extraction,
 - (c) the recommended medical facility for delivery, and
 - (d) any other considerations that could affect the conduct of the MEDEVAC;
- b. Source and task the surface and/or air asset(s) to be used as a recovery platform;
- c. Advise the TMAS of the details of the recovery platform and the operating agency;
- d. Advise the ship's Master of arrangements for the MEDEVAC, including rendezvous and any pre-arrangements for the extraction;
- e. Advise the TMAS and the medical facility of the actual time of extraction and estimated time of delivery of the patient to the shore based medical facility;
- f. Facilitate the MEDEVAC as necessary and maintain a watch over the progress of the MEDEVAC until the patient is delivered to the medical facility; and
- g. Notify the TMAS and the maritime communications station of the outcome of the MEDEVAC on completion of the event.

2.4.5 The TMAS must:

- a. Provide the RCC with:
 - (a) medical advice on issues that may affect the type of rescue platform provided,

- (b) advice as to any medical constraints or requirements that may affect the point and method of extraction, and
 - (c) any other considerations that could affect the conduct of the MEDEVAC;
- b. If necessary advise on the most appropriate medical facility to which the MEDEVAC should deliver the patient and coordinate with the receiving medical facility for receipt of the patient;
 - c. Consult with the operating agency/recovery platform to advise on the patient's medical condition, any recommended constraints or requirements related to immediate treatment or processes of MEDEVAC and the proposed medical facility to receive the patient;
 - d. Continue to consult with the ship's Master regarding the patient's condition as necessary in the circumstances;
 - e. Advise the medical facility of the medical status of the patient at the commencement of the MEDEVAC; and
 - f. Inform the RCC of any circumstances that may cause a need for change in the recovery platform type or timing including where the MEDEVAC is no longer deemed necessary.

3 Communications arrangements

3.1 General

- 3.1.1 The TMAS must maintain in operation at all times facilities for voice and data communications to enable communication with the RCC, ships at sea and rescue personnel. Those communications capabilities should include:
 - a. Voice communication;
 - b. Text messages;
 - c. Facsimile; and
 - d. Digital data transmission (photograph or electrocardiogram).
- 3.1.2 To support this communications capability, the TMAS must provide separate and dedicated phone and facsimile lines.

3.2 Communication between the TMAS and ships at sea

3.2.1 Ships seeking medical advice will normally be put in contact with one of the maritime communications stations. Calls will then either be transferred or relayed to the TMAS. Requests for advice may therefore come to the TMAS:

- a. directly from a ship via a transferred telephone call;
- b. via a maritime communications station which has received a request for assistance from a ship by:
 - .1 Radiotelephony (RTF);
 - .2 Radio telex;
 - .3 Fax/phone;
 - .4 Inmarsat;
 - .5 E-mail; or
 - .6 Via the RCC.

3.2.2 Requests for medical assistance passed to a maritime communications station will normally be relayed to the TMAS over the telephone and replies should be sent through the appropriate maritime communications station.

3.2.3 In some instances communications directly with a ship, for the provision of medical advice, may not be possible. In such circumstances, communications may need to be conducted through maritime communications stations.

3.2.4 Inmarsat Communications

3.2.4.1 The various Inmarsat systems offer two abridged codes (Special Access Codes – SAC) 32 and 38, which can be used for medical advice or medical assistance at sea through telephone, fax or telex using satellite communications.

- .1 **SAC 32** is used to obtain medical advice. The Land Earth Station will provide a direct link with the TMAC when this code is used.
- .2 **SAC 38** is used when the condition of an injured or sick person on board a ship justifies medical assistance (evacuation to shore or services of a doctor on board). This code allows the call to be routed to the associated RCC.

3.3 Communication between the TMAS and the RCC

3.3.1 Communications between the TMAS and the RCC must be conducted by telephone or facsimile or the most appropriate and reliable telecommunication system.

TMAS contact details:	Telephone Medical line General line Facsimile (<i>Check with TMAS prior to transmission</i>) E-mail
RCC contact details:	Telephone Alternate Facsimile E-mail

3.4 Communication between the State TMAS and a Remote TMAS

- 3.4.1 Given the international dimension of maritime navigation, a medical problem may occur on board a ship very far from its country of origin. In such a case the master, who is responsible for the care of those on board, normally calls his designated national TMAS, which can perform remote consultation in his language. Should there be need, following the remote consultation, for an evacuation to the nearest shore, the master will contact the RCC responsible for SAR operations in the search and rescue region (SRR) concerned. In order to facilitate and enhance the planning of the medical aspects of the SAR operation involving medical assistance at sea, all available medical information collected by the TMAS that has carried out a remote consultation will be transferred to the TMAS attached to the responsible RCC. Everything must be done to avoid a second remote consultation by the second TMAS.
- 3.4.2 A common form for the exchange of medical information is available to facilitate the transfer of all available and relevant medical information between the two TMAS authorities. See attached MSC/Circ.1218.
- 3.4.3 On the basis of trans-national partnership agreements, the “medical information exchange form” is used for SAR operations involving medical assistance at sea, in the following manner:
- a. when, following a remote consultation, a TMAS has indicated its recommendation to carry out a medical evacuation, the physician will complete the “medical information exchange form”;
 - b. once the RCC responsible for the SAR operation has been identified, the remote TMAS will transmit the form to the corresponding partner TMAS of the RCC concerned;
 - c. the RCC will be advised appropriately by its designated national TMAS of the medical constraints affecting the SAR operation; and
 - d. at the completion of the SAR operation, the operational TMAS will send any necessary information on medical follow-up to the TMAS that had performed the remote consultation.

3.5 Recording and reporting of communications

- 3.5.1 Telemedical advice and assistance is subject to the confidentiality provision of the relevant Acts for the manner in which they are handled, stored and communicated.
- 3.5.2 In particular, telemedical advice must not be provided to third parties except for the delivery of the advice to:
- a. the target ship;
 - b. the RCC; and
 - c. paramedic organizations and medical institutions involved in the provision of the particular medical services to which the advice and assistance relates.
- 3.5.3 All TMAS communications must be identified by date and time and must be stored securely and so as to enable the records to be accessed promptly should they be required.
- 3.5.4 TMAS must fully document all communications including but not limited to:
- a. case notes;
 - b. time and date of contact and the name of the vessel;
 - c. the names of those with whom they deal (so far as a name can be ascertained); and
 - d. the means of communication (telephone, radio, fax, e-mail, etc., plus contact numbers).
- 3.5.5 The TMAS must make the records, with the exception of case notes, available to the RCC on request.”

SECTION II

PROPOSED AMENDMENTS TO THE IAMSAR MANUAL – VOLUME II

1 Abbreviations and Acronyms

- Add the following text on page xiii:

“TMAS... Telemedical Assistance Service”

2 Glossary

- Add the following text on page xxiii:

“Telemedical Assistance Service (TMAS) A medical service permanently staffed by doctors qualified in conducting remote consultations and well versed in the particular nature of treatment on board ship.”

3 Chapter 1

- Replace in paragraph 1.4.2, second sentence “doctors outside the SAR organization” with “a Telemedical Assistance Service (TMAS)”.
- Replace in paragraph 1.4.2, fifth sentence, “medical advisory service” with “TMAS”.

4 Chapter 2

- add new paragraph 2.7.7 after paragraph 2.7.6 as follows:

“2.7.7 New satellite systems are emerging which can relay distress alerts. Many vessels are equipped with systems that provide comprehensive online such connections to Internet, voice, facsimile and data communications for functions as online E-mail, Short Message System (SMS), video conferencing and medical examination and reporting. These commercial satellite systems are not primarily designed for alerting, but may be used for subsequent SAR communications between ships or aircraft and RCCs or RSCs, or as a link to the On Scene Coordinator.”

- Replace the existing paragraph 2.24.1 with the following:

“2.24.1 Publications which can be used to assist in overcoming language barriers and communication difficulties between vessel and aircraft crews, survivors and SAR personnel include the International Code of Signals, International Regulations for Preventing Collisions at Sea, the IMO Standard Marine Communication Phrases (SMCP) (Assembly resolution A.918(22)), Annex 10 to the Convention on International Civil Aviation and PANS-ATM (ICAO Document 4444). These documents should be included in RCC libraries and be understood by the staff who should be able to comprehend and transmit messages using these phrases. Ships should carry these documents. SRUs should carry the International Code of Signals. The Code of Standard Phrases for Use between (Maritime) RCCs and RSCs is provided in Appendix I.”

- Replace the existing paragraph 2.24.6 with the following:

“2.24.6 With the decreasing use of Morse Code, the International Code of Signals and the IMO Standard Marine Communication Phrases (SMCP) (Assembly resolution A.918(22)) will become increasingly important. It may be of assistance to refer to these documents in international SAR agreements as provisions for use during operations, training and exercises when SAR

facilities of more than one country are co-operating in response to a distress incident.”

- Replace in paragraph 2.27.22, first sentence, “arrangements with doctors outside the SAR organization” with: “a TMAS”.
- Replace in paragraph 2.27.23, second sentence, “medical advisory service” with “TMAS”.
- Add new paragraphs after paragraph 2.27.23 as follows:

“2.27.24 Good communications are essential for an effective telemedical assistance service. Telemedical communications are considered to be safety or urgency communications and as such should have priority over routine traffic and normally be free of charge to the mariner.

2.27.25 The ship’s captain, who is responsible for treatment on board, must be able to access the TMAS of his choice. Choice may be based on his nationality, the ship’s flag and, especially, the language spoken.

2.27.26 Recording of the date and time of all TMAS communications and archiving of secure tape will enable essential data to be preserved should they be required in the event of legal proceedings. All recorded information is subject to medical privacy in the same way as the content of a medical file.

2.27.27 Voice communication is the basis of telemedical advice. It allows free dialogue and contributes to the human relationship, which is crucial to any medical consultation. Text messages are a useful complement to the voice telemedical advice and add the reliability of writing. Facsimile allows the exchange of pictures or diagrams, which help to identify a symptom, describe a lesion or the method of treatment. Digital data transmissions (photographs or electrocardiogram) provide an objective and potentially crucial addition to descriptive and subjective clinical data.

2.27.28 Given the international dimension of maritime navigation, a medical problem may occur on board a ship far from its country of origin. In such a case, the master will normally call his national TMAS, which can perform a telemedical consultation in his language. Should there be a need, following the consultation, for an evacuation to the nearest shore, the master will normally contact the MRCC responsible for the search and rescue region involved.

2.27.29 In order to facilitate and enhance planning of the medical aspects of the evacuation, all available medical information collected by the first-contacted TMAS should be transferred to the TMAS attached to the responsible MRCC. This is to avoid any additional tele-consultation by the second TMAS. A “Medical Assistance at Sea, TMAS – TMAS Medical Information Exchange Form” can be used for this purpose. See Appendix R.

2.27.30 Communication between the ship and TMAS can be established via coast radio stations using VHF, MF or HF radio. Inmarsat satellite communications can be accessed by use of special access codes (SAC) 32 for medical advice and 38 for medical assistance or MEDEVAC. Inmarsat Land Earth Stations (LES) normally route SAC 32 direct to a TMAS and SAC 38 to the associated RCC. Inmarsat can support voice and telex (telex only for Inmarsat-C).”

5 Chapter 3

- Add the following text in paragraph 3.6.1 after “....., such as when the distress is in another SRR.”:

“When an RCC or RSC receives information indicating a distress outside of its SRR, it should immediately notify the appropriate RCC or RSC and take all necessary action to coordinate the response until the appropriate RCC or RSC has assumed responsibility.”

- Remove existing paragraph 3.6.5
- Renumber 3.6.6 to be 3.6.5 and 3.6.7 to be 3.6.6
- Insert new paragraph 3.6.7 as follows:

“New subtitle:

Transferring Responsibilities between RCCs and RSCs

3.6.7 When transferring the coordination of a SAR operation to another RCC or RSC, the transfer should be documented in the RCC or RSC log. The initiating RCC may invite the other RCC to take over responsibility or the other RCC may offer to take over responsibility. The responsibility is retained by the initiating RCC until the other RCC formally accepts responsibility. All participating SAR units are to be advised of the transfer. Procedures to transfer SMC responsibility to another RCC should include:

Personal discussion between the SMCs of both RCCs concerned; and
Exchange of data using SITREP form including full details of action taken.

Details to be included in the process of transfer between RCCs should be as follows:

Date and time of transfer:

From (RCC):

To (RCC):

- .1 Identity of casualty
- .2 Position
- .3 Number of persons in distress
- .4 Description of casualty
- .5 Weather on scene
- .6 Initial actions taken

- .7 Areas already searched (including POD)
- .8 Alerted units
- .9 Current/present search in sub-areas
- .10 Endurance of existing SAR units on scene
- .11 Availability of SAR units on scene (hours/days)
- .12 Communication plan
- .13 Confirmation that all participating SAR units have been advised of the transfer of the responsibility.”

6 Appendix D

- Amend in the **MEDICO or MEDEVAC Checklist** number 10 to read:

“10 Assistance desired, or as recommended by a telemedical assistance service.
Note: If required, refer to “TMAS – TMAS Medical Information Exchange Form”. See Appendix R.”

7 Appendix R

- Insert new **Appendix R** as follows:

Appendix

IDENTIFICATION OF THE REQUIRING TMAS:

Name:
 Address: Tel:
 Fax:
 E-mail:

CONFIDENTIAL MEDICAL INFORMATION

**MEDICAL ASSISTANCE AT SEA
 TMAS - TMAS Medical Information Exchange Form**

To: TMAS:
 (via MRCC if necessary:)

Date:/...../..... Time:h..... Physician: Dr.....

PATIENT

Surname: First Name:
 Date of Birth:/...../..... Age: Sex: M F
 Nationality: Occupation on board:

MEDICAL CIRCUMSTANCES

<input type="checkbox"/> Illness
<input type="checkbox"/> Accident
<input type="checkbox"/> Poisoning
Since:

Previous Medical History	Ongoing Treatments	Care on board before Teleconsultation
.....
.....

MEDICAL OBSERVATION

Pulse: ... / min	BP: .../...mmHg
BR: ... / min	T: °C
Weight: Kg	
Height: m	

Diagnosis(es) given:

IDENTIFICATION OF THE REQUIRING TMAS:

Name:
Address: Tel:
..... Fax:
..... E-mail:

MEDICAL INSTRUCTIONS

.....
.....
.....

MEDICAL ASSISTANCE REQUIRED

- Medical Decision: Ship diversion to (Port):
 Ambulance
Medical Team: Doctor Nurse Paramedic
- Medical Evacuation
Medevac Time frame: Immediate Daylight hours
.....
Medevac Method: Land on Winch/stretchers Winch/Strip
.....
Medical Team: Doctor Nurse Paramedic
- Air Drop of supplies:
.....
.....
- Quarantine situation
.....
.....

SHIP

Ship Name: Call Sign:
Type: Flag:
Location:
Port of Origin: Departure/DTG:
Destination: ETA / DTG:

Contact:

Please send back all the available follow-up information to :

TMAS Name:
Address: Tel:
..... Fax:
..... E-mail:

SECTION III

PROPOSED AMENDMENTS TO THE IAMSAR MANUAL – VOLUME III

1 Abbreviations and Acronyms

- Add the following text on page x:
“**TMAS**... Telemedical Assistance Service”

2 Glossary

- Add the following text on page xv:
“**Telemedical Assistance Service (TMAS)** A medical service permanently staffed by doctors qualified in conducting remote consultations and well versed in the particular nature of treatment on board ship.”

3 Section 3

- Replace on page 3-15 the existing second bullet paragraph with the following:
“In case of language difficulties, the International Code of Signals, the IMO Standard Marine Communication Phrases (SMCP) and standard ICAO phraseology contained in Annex 10 to the Convention on International Civil Aviation and PANS-ATM (ICAO Document 4444) should be used.”

4 Section 4

- Add new heading and text on pages 4-8 and 4-9 before **MEDICO** section as follows:

MEDICAL ASSISTANCE TO VESSELS

Medical assistance is available using Telemedical Assistance Services (TMAS). A TMAS is a medical service permanently staffed by doctors experienced in conducting remote consultations and aware of the particular nature of treatment on board ship. The system provides for direct communication between ships and the TMAS.

The ship will normally contact the TMAS associated with the RCC within whose SAR Region the ship is located.

Alternatively, the ship may contact another TMAS, usually to overcome language difficulties. All medical information collected by this TMAS should be transferred to the TMAS associated with the RCC responsible for coordinating any further action required, to avoid duplication.

Satellite Communications

Inmarsat systems offer two Special Access Codes (SAC) which can be used for medical advice or medical assistance at sea:

- .1 **SAC 32** is used to obtain medical advice. The Land Earth Station will provide a link with the TMAS when this code is used.
 - .2 **SAC 38** is used when the condition of an injured or sick person on board a ship justifies medical assistance (evacuation to shore or services of a doctor on board). This code allows the call to be routed to the associated RCC.”
- Amend on page 4-8 in the **MEDICO** section:
 - the first dot point to read as follows:
 - “MEDICO messages request or transmit medical advice between vessels at sea and a TMAS.”
 - the fourth dot point to read as follows:
 - “These messages are normally delivered only to TMAS, hospitals, or other facilities with which SAR authorities or the communications facilities have made prior arrangements.”
 - the fifth dot point to read as follows:
 - “SAR services may also provide medical advice either from their own doctors or via arrangements with TMAS.”
 - the sixth dot point to read as follows:
 - “In addition to the many Telemedical Assistance Services provided free of charge, there are several commercial enterprises which provide international subscriptions and pay-per-use medical advice to vessels at sea.”
 - Add on page 4-8 in the **MEDICO** section a seventh dot point as follows:
 - “Vessels fitted with Broadband services, Fleet Broadband (F77) and VSAT (Very Small Aperture Terminal) will permit the easy transfer of photographs and videos.”
 - Amend on page 4-9 in the **Medical Evacuation (MEDEVAC)** section in the second dot point the first three points of the required information as follows:
 - “ name of the vessel, flag, IMO number, radio call sign and telephone number
 - master’s name and nationality
 - shipowner/operator, nationality and contact details.”

ANNEX 12

TABLE OF EXISTING USER NEEDS RELATING TO SOLAS REGULATION IV/4

User needs		SOLAS regulations IV/7 to IV/11								
SOLAS regulation IV/4 Functional requirements		VHF-DSC	SART	NAVTEX	EGC	EPIRB	MF/DSC	Inmarsat SES	HF/DSC	Two-way VHF
1	Transmitting ship-to-shore alerts	X				X	X	X	x	
2	Receiving shore-to-ship distress alerts	X					X	X	X	
3	Transmitting and receiving ship-to-ship distress alerts	X					X		X	
4	Transmitting and receiving search and rescue coordinating communications	X					X	X	X	
5	Transmitting and receiving on-scene communications	X					X	X		X
6	Transmitting and receiving signals for locating		X			X				
7	Transmitting and receiving maritime safety information			X	X		X	X		
8	Transmitting and receiving general radiocommunications to and from shore-based radio systems or networks	X					X	X	X	X
9	Transmitting and receiving bridge-to-bridge communications	X					X		X	X

Note:
Ships are required to be provided with means for two-way on-scene radiocommunications on aeronautical frequencies in accordance with SOLAS regulation III/6.

ANNEX 13

**TABLE OF RELATED EQUIPMENT, PERFORMANCE STANDARDS
AND TEST STANDARDS**

Equipment	Regulation SOLAS 74	Relevant regulations, resolutions and circulars of the IMO, as applicable	Testing standards
VHF radio capable of transmitting and receiving DSC and radiotelephony	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.	-Reg. IV/7, -Reg. X/3, -IMO Res. A.385(X), -IMO Res. A.524(13), -IMO Res. A.694(17), -IMO Res. A.803(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO MSC/Circ.862, -IMO COMSAR/Circ.32, -ITU-R M.489-2 (10/95), -ITU-R M.493-10 (05/00), -ITU-R M.541-8 (10/97), -ITU-R M.689-2 (11/93).	-ETSI ETS 300 162-1 V1.4.1 (2005-05), -ETSI EN 300 338 V1.2.1 (1999-04), -ETSI EN 300 828 V1.1.1 (1998-03), -ETSI EN 301 925 V1.1.1 (2002-09), -EN 60945 (2002), -IEC 61097-3 (1994), -IEC 61097-7 (1996), -EN 61162 series, -IMO MSC/Circ.862.
VHF DSC watch-keeping receiver	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.	-Reg. IV/7, -Reg. X/3, -IMO Res. A.694(17), -IMO Res. A.803(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO COMSAR/Circ.32, -ITU-R M.489-2 (10/95), -ITU-R M.493-10 (05/00), -ITU-R M.541-8 (10/97).	-ETSI EN 300 338 V1.2.1 (1999-04), -ETSI EN 300 828 V1.1.1 (1998-03), -ETSI EN 301 033 V1.2.1 (2005-05), -EN 60945 (2002), -IEC 61097-3 (1994), -IEC 61097-8 (1998).

Equipment	Regulation SOLAS 74	Relevant regulations, resolutions and circulars of the IMO, as applicable	Testing standards
NAVTEX receiver	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.	-Reg. IV/7, -Reg. X/3, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO Res. MSC.148(77), -IMO COMSAR/Circ.32, -ITU-R M.540-2 (06/90), -ITU-R M.625-3 (10/95).	-ETSI EN 300 065-1 V1.1.3 (2005-5), -ETSI EN 301 011 V1.1.1 (1998-09), -EN 60945 (2002), -IEC 61097-6 (2005-12).
EGC receiver	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.	-Reg. IV/7, -Reg. X/3, -IMO Res. A.570(14), -IMO Res. A.664(16), -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO COMSAR Circ.32.	-ETSI ETS 300 460 Ed.1 (1996-05), -ETSI ETS 300 460/ A1 (1997-11), -ETSI EN 300 829 V1.1.1 (1998-03), -EN 60945 (2002), -IEC 61097-4 (1994).
HF marine safety information (MSI) equipment (HF NBDP receiver)	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14	-Reg. IV/7, -Reg. X/3, -IMO Res. A.694(17), -IMO Res. A.699(17), -IMO Res. A.700(17), -IMO Res. A.806(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO COMSAR/Circ.32, -ITU-R M.491-1 (07/86), -ITU-R M.492-6 (10/95), -ITU-R M.540-2 (06/90), -ITU-R M.625-3 (10/95), -ITU-R M.688 (06/90).	-ETSI ETS 300 067 Ed.1 (1990-11), -ETSI ETS 300 067/ A1 Ed.1 (1993-10), -EN 60945 (2002), -EN 61162 Series.

Equipment	Regulation SOLAS 74	Relevant regulations, resolutions and circulars of the IMO, as applicable	Testing standards
406 MHz EPIRB (Cospas-Sarsat)	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)- (1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)- (2000 HSC Code) chapter 14.	-Reg. IV/7, -Reg. X/3, -IMO Res. A.662(16), -IMO Res. A.694(17), -IMO Res. A.696(17), -IMO Res. A.810(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO MSC/Circ.862, -IMO COMSAR/Circ.32, -ITU-R M.633-2 (05/00), -ITU-R M.690-1 (10/95).	-ETSI EN 300 066 V 1.3.1 (2001-01), -EN 60945 (2002), -IEC 61097-2 (2002), -IMO MSC/Circ.862. Note: IMO MSC/Circ.862 is applicable only to the optional remote activation device, not to the EPIRB itself.
MF radio capable of transmitting and receiving DSC and radiotelephony	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)- (1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)- (2000 HSC Code) chapter 14.	-Reg. IV/9, -Reg. IV/10, -Reg. X/3, -IMO Res. A.694(17), -IMO Res. A.804(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO COMSAR/Circ.32, -ITU-R M.493-10 (05/00), -ITU-R M.541-8 (10/97).	-ETSI EN 300 338 V1.2.1 (1999-04), -ETSI ETS 300 373-1 V1.2.1 (2002-10), -EN 60945 (2002), -IEC 61097-3 (1994), -IEC 61097-9 (1997), -EN 61162 series, -IMO MSC/Circ.862.
MF DSC watch- keeping receiver	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)- (1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)- (2000 HSC Code) chapter 14.	-Reg. IV/9, -Reg. IV/10, -Reg. X/3, -IMO Res. A.694(17), -IMO Res. A.804(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO COMSAR/Circ.32, -ITU-R M.493-10 (05/00), -ITU-R M.541-8 (10/97), -ITU-R M.1173 (10/95).	-ETSI EN 300 338 V1.2.1 (1999-04), -ETSI EN 301 033 V1.2.1 (2005-05), -EN 60945 (2002), -IEC 61097-3 (1994), -IEC 61097-8 (1998).

Equipment	Regulation SOLAS 74	Relevant regulations, resolutions and circulars of the IMO, as applicable	Testing standards
Inmarsat-B SES	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.	-Reg. IV/10, -Reg. X/3, -IMO Res. A.570(14), -IMO Res. A.694(17), -IMO Res. A.808(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO MSC/Circ.862, -IMO COMSAR/Circ.32.	-EN 60945 (2002), -IEC 61097-10 (1999), -IMO MSC/Circ 862.
Inmarsat-C SES	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.	-Reg. IV/10, -Reg. X/3, -IMO Res. A.570(14), -IMO Res. A.664 (16), (applicable only if the Inmarsat C SES comprises EGC functions), -IMO Res. A.694(17), -IMO Res. A.807(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO MSC/Circ.862, -IMO COMSAR/Circ.32.	-ETSI ETS 300 460 Ed.1 (1996-05), -ETSI ETS 300 460/ A1 (1997-11), -ETSI EN 300 829 V1.1.1 (1998-03), -EN 60945 (2002), -IEC 61097-4 (1994), -EN 61162 series, -IMO MSC/Circ.862.

Equipment	Regulation SOLAS 74	Relevant regulations, resolutions and circulars of the IMO, as applicable	Testing standards
<p>MF/HF radio capable of transmitting and receiving DSC, NBDP and radiotelephony</p> <p>Note: In line with IMO and ITU decisions, the requirements for Two Tone Alarm generator and transmission on A3H are no longer applicable in testing standards.</p>	<p>-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.</p>	<p>-Reg. IV/10, -Reg. X/3, -IMO Res. A.694(17), -IMO Res. A.806(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)- (2000 HSC Code) chapter 14, -IMO MSC/Circ.862, -IMO COMSAR/Circ.32, -ITU-R M.476-5 (10/95), -ITU-R M.491-1 (07/86), -ITU-R M.492-6 (10/95), -ITU-R M.493-10 (05/00), -ITU-R M.541-8 (10/97), -ITU-R M.625-3 (10/95), -ITU-R M.1173 (10/95).</p>	<p>-ETSI ETS 300 067 Ed.1 (1990-11), -ETSI ETS 300 067/ A1 Ed.1 (1993-10), -ETSI EN 300 338 V1.2.1 (1999-04), -ETSI ETS 300 373-1 V1.2.1 (2002-10), -EN 60945 (2002), -IEC 61097-3 (1994), -IEC 61097-9 (1997), -EN 61162 series, -IMO MSC/Circ.862.</p>
<p>MF/HF DSC watch keeping receiver</p>	<p>-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.</p>	<p>-Reg. IV/10, -Reg. X/3, -IMO Res. A.694(17), -IMO Res. A.806(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO COMSAR/Circ.32, -ITU-R M.493-10 (05/00), -ITU-R M.541-8 (10/97).</p>	<p>-ETSI EN 300 338 V1.2.1 (1999-04), -ETSI EN 301 033 V1.2.1 (2005-05), -EN 60945 (2002), -IEC 61097-3 (1994), -IEC 61097-8 (1998).</p>
<p>Aeronautical two way VHF radio telephone apparatus</p>	<p>-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.</p>	<p>-Reg. IV/7, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO Res. MSC.80(70), -IMO COMSAR/Circ.32, -ICAO Convention, Annex 10, Aeronautical Telecommunications.</p>	<p>-ETSI EN 301 688 V1.1.1 (2000-07), -EN 60945 (2002).</p>

Equipment	Regulation SOLAS 74	Relevant regulations, resolutions and circulars of the IMO, as applicable	Testing standards
Portable survival craft two-way VHF radiotelephone apparatus	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.	-Reg. III/6, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code) chapters 8 and 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapters 8 and 14, -IMO Res. MSC.149(77), -ITU-R M.489-2 (10/95), -ITU-R M.542.1 (07/82).	-ETSI EN 300 225 V1.4.1 (2004-12), -EN 300 828 V1.1.1 (1998-03), -EN 60945 (2002), -IEC 61097-12 (1996).
Fixed survival craft two-way VHF radiotelephone apparatus	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.	-Reg. III/6, -IMO Res. A.694(17), -IMO Res. A.809(19), -IMO Res. MSC.36(63)-(1994 HSC Code) chapters 8 and 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapters 8 and 14, -ITU-R M.489-2 (10/95).	-ETSI EN 301 466 V1.1.1 (2000-11), -EN 60945 (2002), -IEC 61097-12 (1996).
Inmarsat-F SES	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14.	-Reg. IV/10, -IMO Res. A.570(14), -IMO Res. A.808(19), -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 14, -IMO MSC/Circ.862, -IMO COMSAR/Circ.32.	-EN 60945 (2002), -IEC 61097-13 (2003), -IMO MSC/Circ.862.
VHF EPIRB	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. IV/8, -IMO Res. A.662(16), -IMO Res. A.694(17), -IMO Res. A.805(19), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code), -ITU-R M.489-2 (10/95), -ITU-R M.693 (06/90).	-EN 60945 (2002). Or, -IEC 60945 (2002).

Equipment	Regulation SOLAS 74	Relevant regulations, resolutions and circulars of the IMO, as applicable	Testing standards
Radio reserve source of energy	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. IV/13, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code), -IMO COMSAR/Circ.16, -IMO COMSAR/Circ.32.	-EN 60945 (2002). Or, -IEC 60945 (2002).
Distress panel	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. IV/6, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code), -IMO MSC/Circ.862, -IMO COMSAR/Circ.32.	-EN 60945 (2002). Or, -IEC 60945 (2002).
Distress alarm or alert panel	-Reg. IV/14, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code).	-Reg. IV/6, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code), -IMO Res. MSC.97(73)-(2000 HSC Code), -IMO MSC/Circ.862, -IMO COMSAR/Circ.32.	-EN 60945 (2002). Or, -IEC 60945 (2002).
Ship security alert system	-Reg. XI-2/6	-IMO Res. A.694(17), -IMO Res. MSC.147(77), -IMO MSC/Circ.1072.	-EN 60945 (2002). Or, -IEC 60945 (2002).
9 GHz SAR transponder (SART)	-Reg. III/4, -Reg. IV/14, -Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 13, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 13.	-Reg. III/6, -Reg. IV/7, -IMO Res. A.530(13), -IMO Res. A.802(19), -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code) chapters 8 and 14, -IMO Res. MSC.97(73)-(2000 HSC Code) chapters 8 and 14, -ITU-R M.628-3(11/93).	- -IEC 60945 (2002), -IEC 61097-1 (1992).

Equipment	Regulation SOLAS 74	Relevant regulations, resolutions and circulars of the IMO, as applicable	Testing standards
Universal automatic identification system equipment (AIS)	-Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 13, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 13.	-Reg. V/19, -IMO Res. A.694(17), -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 13, -IMO Res. MSC.74(69), -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 13, -ITU-R M. 1371-1(10/00).	- -IEC 60945 (2002), -IEC 61162 Series, -IEC 61993-2 (2001).
AIS-SART	-Reg. III/4, -Reg. IV/14, -Reg. V/18, -Reg. X/3, -IMO Res. MSC.36(63)-(1994 HSC Code) chapter 13, -IMO Res. MSC.97(73)-(2000 HSC Code) chapter 13.	-IMO Res. MSC.246(83) -ITU-R M. 1371-1(10/00).	-IEC 61097-14 -IEC 60945 (2002),
Long-Range Identification and Tracking (LRTI) system	MSC.202(81) (SOLAS V reg 19-1)	-IMO Res. MSC.210(81) -IMO Res. MSC.211(81)	No specific standard -IEC 60945 (2002),

ANNEX 14**LIAISON STATEMENT TO ITU, IEC, IALA AND CIRM
AIS SEARCH AND RESCUE TRANSMITTER (AIS-SART)**

IMO would like to thank ITU-R for the liaison statement (Document 5B/TEMP/25) concerning the proposal for an identifier for AIS-SARTs based on the structure:

$$9_1 7_2 0_3 X_4 X_5 Y_6 Y_7 Y_8 Y_9$$

The Sub-Committee on Radiocommunications and Search and Rescue (COMSAR), at its twelfth session (7 to 11 April 2008), noted that this structure does not contain a MID and therefore concurs with the recommendation of the Sub-Committee at its tenth session that there is no need for the identifier transmitted from an AIS-SART to include a country or vessel identifier in order to duplicate the SART function whose transmission similarly has no country nor vessel identifier. The identifier proposed by ITU-R can be permanently encoded into the AIS-SART with no need for change with change of flag of a ship, etc., and consequent improvements in the reliability of the device.

The COMSAR Sub-Committee considered whether any additional identification of the AIS-SART would be helpful and concluded that the transmission of a safety related broadcast message (Message 14 of Recommendation ITU-R M.1371) with the text "SART ACTIVE" or "SART TEST" would be helpful on ships which had no graphical indication of AIS targets.

The COMSAR Sub-Committee also considered whether it would be of benefit to transmit a new navigational status in the position report (Message 1 of Recommendation ITU-R M.1371) set to a new code 14 for DISTRESS when the AIS-SART is active and a new code 15 for NOT DEFINED when the AIS-SART is undergoing a self test. However, given that very few ships will have an AIS installation which is capable of interpreting these new codes and given that the AIS-SART is not a distress alerting device it was concluded that this was not of benefit.

ANNEX 15

**PROPOSED REVISED WORK PROGRAMME AND
PROVISIONAL AGENDA FOR COMSAR 13**

SUB-COMMITTEE ON RADIOCOMMUNICATIONS AND SEARCH AND RESCUE (COMSAR)

		Target completion date/number of sessions needed for completion	Reference
1	Global Maritime Distress and Safety System (GMDSS)		
	.1 matters relating to the GMDSS Master Plan Strategic Direction: 5.2 High-level Action: 5.2.5 Planned output: 5.2.5.2	Continuous	COMSAR 11/18, paragraphs 3.1 to 3.4 COMSAR 12/15, paragraphs 3.1 to 3.7 and 3.23 to 3.30
	.2 exemptions from radio requirements Strategic Direction: High-level Action: Planned output:	Continuous	COMSAR 4/14, paragraphs 3.38 to 3.41; COMSAR 12/15, paragraphs 12.4
2	Promulgation of maritime safety information (MSI) (in co-operation with ITU, IHO, WMO and IMSO)		
	.1 operational and technical coordination provisions of maritime safety information (MSI) services, including review of the related documents Strategic Direction: 5.2 High-level Action: 5.2.5 Planned output: 5.2.5.1	Continuous	COMSAR 11/18, paragraphs 3.5 to 3.22 COMSAR 12/15, paragraphs 3.8 to 8.20 and 3.31 to 3.34
3	Radiocommunication ITU-R Study Group matters Strategic Direction: 1.1 High-level Action: 1.1.2 Planned output: 1.1.2.2	Continuous	COMSAR 11/18, paragraphs 4.1 to 4.2 COMSAR 12/15, paragraphs 4.1... to 4.10 and 4.22 to 4.27...

		Target completion date/number of sessions needed for completion	Reference
4	ITU World Radiocommunication Conference matters Strategic Direction: 1.1 High-level Action: 1.1.2 Planned output: 1.1.2.2	Continuous	COMSAR 11/18, paragraphs 4.3 and 4.16 COMSAR 12/15, paragraphs 4.11... to 4.19 and 4.28 to 4.35...
5	Satellite services (Inmarsat and Cospas-Sarsat) Strategic Direction: 5.2 High-level Action: 5.2.5 Planned output: 5.2.5.4	Continuous	COMSAR 11/18, section 5 COMSAR 12/15, section 5
6	Matters concerning search and rescue, including those related to the 1979 SAR Conference and the implementation of the GMDSS		
	.1 harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters Strategic Direction: 2 High-level Action: 2.3.1 Planned output: 2.3.1.5	2008 2009	COMSAR 11/18, paragraphs 6.1 to 6.26 COMSAR 12/15, paragraphs 6.1... to 6.15, 6.65 to 6.75 and 6.91 to 6.92...
	.2 plan for the provision of maritime SAR services, including procedures for routing distress information in the GMDSS Strategic Direction: 2 High-level Action: 2.3.1 Planned output: 2.3.1.1/2.3.1.2	Continuous	COMSAR 11/18, paragraphs 6.27 to 6.48 COMSAR 12/15, paragraphs 6.16... to 6.59 and 6.76 to 6.90...
	.3 revision of the IAMSAR Manual Strategic Direction: 1.3 High-level Action: 1.3.5 Planned output: 1.3.5.2	Continuous	MSC 71/23, paragraph 20.2; COMSAR 11/18, section 8 COMSAR 12/15, section 8

		Target completion date/number of sessions needed for completion	Reference
	.4 medical assistance in SAR services Strategic Direction: 2 High-level Action: 2.3.1 Planned output: 2.3.1.3	2008	MSC 75/24, paragraph 22.29; COMSAR 11/18, paragraphs 6.49 to 6.51 COMSAR 12/15, paragraphs 6.60 to 6.62
7	Casualty analysis (coordinated by FSI)	Continuous	MSC 70/23, paragraphs 9.17 and 20.4; MSC 78/26, paragraph 24.8
H.1	Developments in maritime radiocommunication systems and technology Strategic Direction: 5.2 High-level Action: - Planned output:	2008 2009	MSC 74/24, paragraph 21.25.1; COMSAR 11/18, section 7 COMSAR 12/15, section 7
H.2	Guidelines for uniform operating limitations of high-speed craft (coordinated by DE)	2008	MSC 81/25, paragraph 23.45 ; COMSAR 11/18, section 3] COMSAR 12/15, section 10
H.3	Development of an e-navigation strategy (coordinated by NAV)	2008	MSC 81/25, paragraphs 23.34 to 23.37; COMSAR 11/18, section 14 COMSAR 12/15, section 11
H.4	Development of procedures for updating shipborne navigation and communication equipment (coordinated by NAV) Strategic Direction: 5.2 High-level Action: - Planned output: -	2 sessions 2010	MSC 83/28, paragraph 25.30

	Target completion date/number of sessions needed for completion	Reference
L.1 Replacements for use of NBDP (radio telex) for maritime distress and safety communications in maritime MF/HF bands Strategic Direction: 5.2 High-level Action: 5.2.5 Planned output: 5.2.5.3	2008	MSC 81/25, paragraph 23.23; COMSAR 11/18, section 12 COMSAR 12/15, section 9

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- Notes:**
- 1 “H” means a high priority item and “L” means a low-priority item. However, within the high- and low-priority groups, items have not been listed in any order of priority.
 - 2 Items printed in bold letters have been selected for the provisional agenda for COMSAR 13.

ANNEX

PROVISIONAL AGENDA FOR COMSAR 13*

- Opening of the session
- 1 Adoption of the agenda
 - 2 Decisions of other IMO bodies
 - 3 Global Maritime Distress and Safety System (GMDSS)
 - .1 matters relating to the GMDSS Master Plan
 - .2 operational and technical coordination provisions of maritime safety information (MSI) services, including review of the related documents
 - 4 ITU maritime radiocommunication matters
 - .1 Radiocommunication ITU-R Study Group matters
 - .2 ITU World Radiocommunication Conference matters
 - 5 Satellite services (Inmarsat and Cospas-Sarsat)
 - 6 Matters concerning search and rescue, including those related to the 1979 SAR Conference and the implementation of the GMDSS
 - .1 harmonization of aeronautical and maritime search and rescue procedures, including SAR training matters
 - .2 plan for the provision of maritime SAR services, including procedures for routing distress information in the GMDSS
 - 7 Developments in maritime radiocommunication systems and technology
 - 8 Revision of the IAMSAR Manual
 - 9 Development of procedures for updating shipborne navigation and communication equipment
 - 10 Work programme and agenda for COMSAR 14
 - 11 Election of Chairman and Vice-Chairman for 2010
 - 12 Any other business
 - 13 Report to the Maritime Safety Committee

* Agenda item numbers do not necessarily indicate priority.

ANNEX 16

STATEMENT OF THE DELEGATION OF TURKEY

“The paper submitted by Turkey (COMSAR 12/INF.7) under this agenda item. I will not read out the whole text of my statement as well in order to save time. The paper submitted by Turkey was aimed at providing updated information regarding Turkey’s SAR system and its implementation, including recently assumed responsibilities within the Cospas-Sarsat System. I do hope delegations will take note of my country’s activities in saving human life, which is our common objective. The number of rescued people is shown in paragraphs 14 to 16 of our paper.

However, the paper submitted by Greece (COMSAR 12/6/11) contains, *inter alia*, a distortion of facts concerning Turkish Mission Control Center (TRMCC) service area boundaries, which were described in accordance with the established Cospas-Sarsat procedures.

TRMCC obtained Initial and Final Operational Capabilities with a service area that corresponds to Turkish SRR as reflected in IMO Global SAR Plan. In 2006, following the views expressed by the Greek SPOC of ITMCC, an overlapping arrangement in the relevant portions of the Aegean and Mediterranean Seas had been reached among all the parties concerned. This overlapping arrangement between TRMCC and ITMCC service areas was and is still clearly in accordance with longstanding Cospas-Sarsat Management Policy.

It should also be emphasized that when Greece had decided to ask for the status of “ground segment provider” in the Cospas-Sarsat system, it was fully informed about all these developments and decisions. Concerning Turkey’s SRR, I would like to state that Turkey has always been ready to discuss search and rescue related issues with Greece in line with the provisions of Hamburg Convention, including a possible delineation of SRR boundaries between Turkey and Greece. Lacking such an agreement, conclusion of appropriate overall coordination arrangements for SAR services in the Aegean is required and Turkey stands ready to do so.

Furthermore, as to Greek claims of sovereignty in the Aegean, it must be underlined that approximately fifty percent of the Aegean Sea is composed of high seas and international airspace where Turkey has also assumed SAR responsibilities and that the Aegean Sea is dominated by international waters and airspace.

Finally, with regard to the paper COMSAR 12/6/10 that refers to our paper and submitted by another delegation, I would like to state simply that Cyprus problem is a political issue and this is not the appropriate forum to discuss Cyprus, which is on the agenda of the United Nations Security Council since 1963. When a lasting and equitable solution could be found to this problem, corresponding arrangements regarding SAR services may also be agreed upon by relevant parties.

I thank the delegations for their attention and I would like to as the inclusion of my statement in the final report of the Committee as attachment.”

ANNEX 17**STATEMENT OF THE DELEGATION OF GREECE**

In response to the statement made by the Turkish delegation under agenda item 6 and in addition to the Greek views included in IMO Document COM 12/6/11, the Greek delegation would like the Committee to also take note of the following:

According to the International Cospas-Sarsat Programme Agreement, the purpose of the program is to support the objectives of IMO and ICAO concerning search and rescue, as well as to deliver the relevant data to appropriate search and rescue authorities, in accordance with the relevant resolutions, standards and recommendations of ICAO and IMO.

Within the framework of Cospas-Sarsat, an MCC service area includes aeronautical, maritime and terrestrial regions in which the MCC's national authorities facilitate or provide search and rescue services. These national competent authorities are determined according to international conventions and decisions adopted in the framework of the competent International Organizations, specifically IMO and ICAO.

In this context, Turkey maintains that the TRMCC service area "corresponds to Turkish SRR as reflected in the IMO Global SAR Plan". Nevertheless, the SRR referred to in the IMO Global SAR Plan only concerns the alleged Turkish maritime SAR region. Therefore, as regards the TRMCC service area, Turkey disregards the fact that an MCC service area contains not only maritime but also aeronautical and terrestrial regions.

This results in a geographical situation where areas under Greek sovereignty (islands, territorial waters, national airspace) are arbitrarily included in the above mentioned TRMCC service area.

Moreover, Turkey disregards Greek responsibility for aeronautical Search and Rescue within Athinai FIR, as was decided during the Istanbul (1950), Paris (1952) and Geneva (1958) Regional Air Navigation Meetings and approved by unanimous ICAO Council Decisions.

Greece reiterates its readiness to discuss search and rescue related issues on the basis of the provisions of international law, including the principles and recommendations of ICAO and IMO on the alignment of SAR boundaries with the corresponding FIR Regions.

We thank the delegations for their attention and we would like this statement to be included in the final report of the Committee.