8th COMMISSION ON THE PROMULGATION OF RADIO NAVIGATIONAL WARNINGS MEETING
Hotel Regente, Buenos Aires, Argentina
12-15 September 2006

SUMMARY REPORT

Note: Paragraph numbering is the same as in the agenda (Annex A).

1 OPENING REMARKS AND ADMINISTRATIVE ARRANGEMENTS

1.1 Opening Remarks and Introductions

The Chairman of the Commission (Mr. Peter Doherty, United States (NGA)) opened the 8th CPRNW Meeting at 0930 hours on Tuesday 12 Sep 2006. Representatives of 15 IHO Member States, the IHB, and three Ex-Officio members (WMO, IMSO, and Inmarsat) were in attendance. Of the 15 Member States represented, 11 were NAVAREA Coordinators and 1 was a Sub-Area Coordinator. The list of participants at the meeting is given in Annex B.

1.2 Welcome by Argentina Hydrographic Office

CDR Valentin Sanz Rodriguez introduced CAPT Raul Eduardo Benmuyal, Chief of Argentine Hydrographic Office. As the NAVAREA VI Coordinator he welcomed all delegates to this meeting and recognized the efforts made by many delegates to travel to Argentina and be in attendance. He identified that a high priority for Argentina is to actively participate in events such as this meeting that promote the safety of navigation, enable interaction and exchange of opinions in a framework of companionship, and provide stimulating interaction that only channels and strengthens cooperation between nations dealing with marine matters. He noted that Argentina has a great maritime tradition and rich legacy that dates back to over 120 years ago when a group of leaders identified the need to produce charts of coasts and ports, maintain aids to navigation such as lights and buoys, establish a meteorology office, and publish sailing directions. As one of the founding member states of the IHO and a country dedicated to a lasting safety of navigation mission, he extended best wishes for all delegates that their stay here in Argentina would be enjoyable and offer them the opportunity to experience the culture and traditions of Argentina. Finally, he expressed confidence that this meeting, with a clear objective of protecting life at sea and the marine environment, would be beneficial for all.

1.3 Working Arrangements

The Chairman welcomed the delegates and expressed his appreciation to Argentina for hosting this meeting. He noted that at the 7th meeting held a year ago in Monaco at the IHB, the Commission voted and approved to change the Terms of Reference of the CPRNW to specify that meetings would be held annually and be officially announced 9 months in advance. He also recognized the fact that this meeting had the largest attendance of any CPRNW meeting and that 11 of 15 NAVAREA Coordinators were in attendance.

The Chairman reminded all delegates that it was critical that everyone appreciate and understand that the underlying premise of the World-Wide Navigational Warning Service (WWNWS) is that it is an internationally coordinated global service and that although national interests are important to each one of us – it is not the primary objective of the Service nor the member states that make up this Commission.

1.4 Administrative Arrangements

The Chairman next covered some of the administrative arrangements regarding the meeting, planned social events, and services being provided for all delegates. He personally recognized CDR Valentin Sanz Rodriquez, Ms. Ana Maria Mendoza, CAPT Carlos Ignacio Ruda, and other staff members for their efforts in making all arrangements and coordinating this meeting and events. The group agreed to its hours of work and other necessary working arrangements.

1.5 Adoption of the Agenda

The Chairman stated that the meeting agenda was very full and encouraged active participation by all delegates in the discussion of key items where their individual knowledge, experience, and expertise would be valuable to that particular agenda item. He also identified that in order to complete each item on the agenda over the next four days that it would be beneficial to all delegates if everyone would keep their comments brief, concise and pertinent to the issue being discussed.

The Commission adopted the agenda. A copy of the meeting agenda and a listing of all the papers submitted are located at Annexes A and C respectively.

1.6 Review of Action Items from the 7th CPRNW Meeting

The Chairman reviewed each individual action item from the last meeting of the CPRNW and briefly discussed the current status of each and identified if it would be addressed further as part of the agenda for this meeting. The complete listing of all actions from the 7th and 8th meetings of the CPRNW along with noted comments and their current status are contained in Annex D.

2 MATTERS RELATING TO THE GMDSS MASTER PLAN

The Chairman recognized the fact that the IMO representative could not attend this meeting due to a scheduling conflict. Due to this situation, a full update on the GMDSS could not be presented.

2.1 IMO Resolution A.705 Document Update

The Chairman explained to all delegates that at the 7th meeting of the CPRNW it was recommended and agreed upon to establish a Correspondence Group (CG) to conduct a thorough review of all WWNWS guidance documents. This recommendation also identified that the IMO SafetyNET and NAVTEX Coordinating Panels should lead this effort commencing after COMSAR 10, which was to be held in March 2006, to ensure that any changes to WWNWS Guidance Documents as a result of this conference were taken into consideration. The Chairman finally noted that it was agreed upon that any proposed changes to any of the WWNWS guidance documents as a result of this working group (WG) will be forwarded to all members of the CPRNW for comment prior to approval.

The Chairman next invited the Secretary of the IMO NAVTEX Coordinating Panel to provide a status on the WWNWS guidance document review to date. The Secretary thanked the Chairman and noted that the need for this document review CG was identified as a result of a growing realization that all of the documentation associated with the WWNWS had been amended independently over the past 10 years and had grown apart. The Secretary identified that the WG did initially meet in March of 2006, immediately following COMSAR in London at IMO Headquarters, and it was decided by the group at that time that the two top level guidance documents should be reviewed first. These are Resolution A.705(17) *Promulgation of Maritime Safety Information* and Resolution A.706(17), as amended *World-Wide Navigational Warning Service*. Work to date by the CG has focused on these documents with a first draft generated and posted for comments on the IHB website. The next goal is to achieve a 2nd draft of both documents by 01 January 2007, with a final goal of submission back to IMO COMSAR 12 in Feb 2008. The Secretary noted that after these two documents are finalized, the CG could then begin to review the remaining guidance documents. (See section 4 for a more detailed account.)

The Chairman reminded all delegates that these are only recommended changes and they are draft documents and he encouraged everyone to take the opportunity to submit comments. The current draft versions of both A.705(17) and A.706(17) were then provided to each delegate to review and be used for discussion later in the meeting.

Discussion then briefly focused on what exactly was the correct process to follow at IMO to submit changes to these documents and whether or not there was enough time to finalize these two documents for submission to COMSAR 11. The IMSO representative asked if an IMO assembly resolution was required or just a Maritime Sub-Committee (MSC) resolution. The Chairman reminded everyone that since the CPRNW is a Commission under the IHO that these changes will need to be approved by IHO member states as well as WMO. Without representation from the IMO at the meeting to provide guidance and clarification to the exact procedural process, the IHB took an action to investigate what is the correct method for submission.

3 PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)

3.1 Results from the 10th Session of the International Maritime Organization's Sub-Committee on Communications and Search and Rescue

3.1.1 Joint IMO/IHO/WMO Correspondence Group on Arctic MSI Services

The Chairman informed the delegates that he provided a summary of the activities of the IHO CPRNW at the 10th session of COMSAR that was held at IMO Headquarters in London in Feb 2006. The Chairman noted that three papers were submitted and discussed which had applicability to the work of the Commission. Specifically the Chairman identified the papers submitted by the Russian Federation (COMSAR 10/3), the IHO (COMSAR 10/3/1), and Japan (COMSAR 10/3/3) that addressed expansion of the WWNWS to include arctic waters and the promulgation of warnings for tsunamis and other natural disasters.

At COMSAR 10 a WG was established to address these papers and was chaired by the CPRNW Chairman. This WG decided to establish a Joint IMO/IHO/WMO CG to address the expansion of the WWNWS into the Arctic regions of the world. Terms of reference for

the recommended CG were drafted and later approved by the COMSAR in plenary. (see Annex E) The CPRNW Chairman was selected to chair this CG.

The Chairman then noted that the IHB has established a web based bulletin board service to address this issue and that all information related to this CG will be posted at this website http://iho-discussions.org . He then reported on the progress to date that has been made by the CG against each of the items identified in the Terms of Reference.

- **Should there be a northern limit to any new areas?**
  The Chairman noted that the current consensus is that all NAVAREAs should provide coverage up to 90 degrees North which the Commission members agreed to.

- **Can a seasonal service only be provided?**
  The Chairman noted that input received so far identifies the need for full 24/7 operations, understanding that certain areas will not be navigable during certain times. This too was agreed to by Commission members.

- **Who will act as NAVAREA Coordinator and METAREA issuing service (do not have to be same country)?**
  The Chairman noted that the joint CG took into consideration existing NAVAREA boundaries that border the new areas as well as the Inmarsat satellite footprints. This was done in order to prevent the establishment of new NAVAREAs that would have to promulgate messages under multiple satellite transmissions. The Chairman noted that he met with Canadian National Defence, Environment Canada, and the Canadian Coast Guard in June of 2006 to discuss promulgation of maritime safety information in the Arctic Waters.

  The Chairman mentioned the offer to provide Canadian National Defence with an Inmarsat test transceiver to validate limits of existing Inmarsat satellite coverage. Canada also provided data identifying arctic transits since 1904, which included approximately 190 vessel passages. Canada noted that none of the passages went beyond 75 North latitude. Inmarsat stated that the upper limit of coverage is 76 North latitude with a potential of 82 North.

  The Chairman further noted that Canada, Norway and Russia have all agreed to be new NAVAREA Coordinators for the Arctic. He recognized this as a major achievement for the CG. The Commission endorsed the selection of the three new NAVAREA Coordinators. The Chairman noted that METAREA Coordinators still needed to be addressed. The WMO representative took an action to clarify who are the points of contact for METAREA services over those areas.

- **Would some of the proposed new NAVAREAs be better established as sub-areas of existing NAVAREAs?**
  The Chairman noted that this would follow the model of NAVAREA I and Sweden. The current general consensus of the CG is that a Sub-Area would be remote from the existing NAVAREA and the information promulgated would be irrelevant for the vast majority of vessels within the area. This would only generate an overload of irrelevant information to vessels within the NAVAREA. Thus, it would not be beneficial to extend current NAVAREAs and make these areas as Sub-Areas. Norway did entertain discussions about the potential of becoming a sub-area coordinator under NAVAREA I, but then decided they would prefer to be a

NAVAREA Coordinator. The Commission agreed that the Arctic should be covered by new NAVAREAs and not Sub-Areas.

- **How will warnings be transmitted, and can they be monitored as required? Do systems other than Inmarsat (such as HF NBDP, NAVTEX or other satellite service providers) need to be considered?**
  The Chairman noted the current monitoring requirement for all maritime safety information broadcasts under GMDSS. Recognizing the limited coverage of Inmarsat-C within the Arctic waters, and in order to identify other potential satellite service provider capabilities, a questionnaire was generated by the joint CG and sent directly to: Iridium, Orbcom, Globestar, and Inmarsat. Of those four companies, Inmarsat and Iridium have responded to date.

  The Chairman reminded all delegates that there will be cost and resource impacts involved if multiple service providers are to be utilized under the GMDSS. The Chairman also noted that national distribution services for maritime safety information promulgation under GMDSS are not acceptable. It was agreed that further discussions concerning this matter would need to take place and be considered.

- **Who will undertake provision of SAR information?**
  The Chairman noted that the provision of SAR information has not been addressed by the joint CG to date.

- **How will Inmarsat system definition manual and existing SafetyNET terminals be updated to allow receipt of the new NAVAREAs? Ideally this update needs to be coordinated with plans to include new areas in other parts of the world.**
  The Chairman noted that discussions with Inmarsat have been held and agreed that changes can be made to system definition manual to accommodate expansion of the WWNWS into the Arctic waters. Inmarsat requested that all agreed upon changes to coverage areas under the WWNWS to include the Arctic expansion and other existing coverage gaps be implemented at the same time. This will lessen the impact on the customer and the equipment manufacturers. Inmarsat will address this issue further in its presentation later in the agenda.

- **Will assistance be required from IHO/CPRNW to support new NAVAREA co-ordinators or from JCOMM/ETMSS for METAREA issuing services?**
  The Chairman noted that assistance from the CPRNW will be required in the terms of providing training and technical support. The Chairman asked NAVAREA Coordinators for their cooperation in this effort and to provide support if requested. The WMO representative also offered the assistance of training and technical support for METAREA issuing services.

- **How will WWNWS guidance and other relevant documents be updated?**
  The Chairman noted the establishment of the WWNWS guidance document CG and their work to date. Considerations for the new Arctic NAVAREAs to include potential technical changes and modifications to graphics will part of the CG document update process.

The Chairman noted that graphics depicting the new Arctic NAVAREAs were posted on the conference room walls that identify preliminary boundaries and roman numeral numbering convention of the NAVAREAs. For the record, the Chairman identified that Canada will assume NAVAREA Coordinator responsibilities for new Arctic NAVAREAs XVII and XVIII, Norway for NAVAREA XIX, and the Russian Federation for NAVAREA XX and XXI. The Chairman reminded all delegates that the delimitation of these new Arctic NAVAREAs is not related to and shall not prejudice the delimitation of any boundaries between States.

NAVAREA I expressed pleasure that various countries have agreed in principle to take over new roles as a NAVAREA Coordinator for each of the proposed new arctic areas. He agreed with the Chairman in regards to the delimitation of NAVAREA boundaries. The NAVAREA I Coordinator also noted the need to look at the intersection points of NAVAREA boundaries across all new Arctic NAVAREAs to ensure a simple yet effective solution for the mariner. Inmarsat stated that software on older maritime terminals can only monitor one primary and one secondary NAVAREA but some later models can monitor up to four secondary (additional) NAVAREAs at one time. In addition, all models are able to monitor a few fixed areas that are set up by the operator.

The Chairman noted the comments of the NAVAREA I Coordinator but did not want the issue of intersecting points to impede the establishment of new Arctic NAVAREA boundaries, taking into consideration the amount of vessels that would be impacted, and the need to move forward with the best and most feasible solution. The IMSO representative stated that there will be a conjunction of multiple NAVAREAs regardless of where the boundaries are designated and that with new Inmarsat-C transceivers capable of monitoring up to four NAVAREAs at one time, a practical solution already exists.

Norway requested the opportunity to address the Commission and presented the following formal statement:

> *"First of all I would like to say that Norway welcomes the initiative to establish NAVAREAS in the Arctic, and will continue to work constructively in order to achieve a sound and viable solution.*
>
> *Consultations between Norway and the Russian Federation on delimitation of the continental shelf and the 200 mile zones in the Barents Sea are, as stated in the UN Communication Ref CLCS.01.2001.LOS/NOR, ongoing. This delegation is aware that the limits of navigational areas are without prejudice to maritime delimitation. However a NAVAREA limit coinciding exactly with the claim of one party in the process of a maritime delimitation would be highly inappropriate and unacceptable to Norwegian authorities. The western limit of the new NAVAREA XX as proposed by the Russian delegation corresponds to the Russian Federation's claim in these consultations and is therefore not acceptable to Norway. Apart from this my delegation is flexible as to how the limits should be drawn and interested in looking into alternative delimitations of NAVAREA XX. Norway will be presenting an alternative proposal in the correspondence group established for this purpose and would hope for and expect support for a solution that may not be seen as supporting one particular claim in the delimitation process."*

The Chairman requested clarification from Norway on what issues remain regarding the eastern boundary limit between their new Arctic NAVAREA XIX and the new Russian Federation Arctic NAVAREA XX. Norway responded that discussions will continue with the Russian Federation and they encouraged that a viable solution will be forthcoming.

The Chairman noted limitations with Inmarsat coverage beyond 76 degrees North and requested of the Norwegian delegation some statistical data on the number of vessels that transit waters above that latitude similar to that already provided by Canada. Additionally any information that Norway may have in regards to signal and transmission testing would also be beneficial. Norway responded that they could provide some historical information and would investigate this further. The Chairman noted that the Russian Federation would also be asked for this same statistical data. IMSO and Inmarsat offered to cooperate and assist Norway and the Russian Federation in any future testing if requested.

The Chairman noted that Iridium has already stated that they are providing some Arctic dissemination service which IMSO verified. The Chairman also noted that the discussions within the IMO MSC in regards to Resolution A.888 may provide further clarification as to other satellite service provider capabilities.

The Chairman noted that the Russian Federation was unable to attend the meeting and felt that it would be beneficial if he summarized their position regarding the establishment of the new Arctic NAVAREAs to the delegates as documented in their Self-Assessment.

The Chairman then stated that the new METAREA issuing services should not have concern with the proposed roman numeral numbering scheme for the new Arctic NAVAREAs. The WMO representative concurred with the Chairman and stated that if there were any major disagreements with this issue, the Commission would have heard about it by now. He added that at the JCOMM ETMSS meeting in January 2007 which the Chairman has been invited to, he would bring this up as a discussion point for approval and then formal submission of endorsement to the IMO.

3.1.2 Tsunami Update

The Chairman noted that at COMSAR 9 and 10 the general assembly considered the promulgation of warnings for tsunamis and other natural disasters using the existing International SafetyNET and/or NAVTEX systems. The following guidance which was published in COMSAR/Circ.36, see Annex I, pending a future review of resolution A.706(17) on the World-Wide Navigational Warning Service:

- Tsunami Warning Centers and those who may seek to broadcast warnings as a result of natural disasters (natural disaster warnings) may make use of the existing International SafetyNET system. As a first step each Tsunami Warning Centre and those who may seek to broadcast natural disaster warnings should register with the IMO International SafetyNET Coordinating Panel to obtain a certificate of authorization.
- NAVAREA and National Coordinators in the affected areas, or areas likely to be affected, upon receipt of any tsunami warnings or of any other natural disaster warnings should immediately re-broadcast such warnings using the highest priority and all existing means as appropriate.

- In the interim and until Tsunami Warning Centers are established and registered, those responsible for issuing tsunami or natural disaster warnings may use the World-Wide Navigational Warning Service (WWNWS) to broadcast such warnings both regionally and locally. This may be achieved by passing the warnings to be broadcasted to the NAVAREA or National Coordinators for the affected areas, or areas likely to be affected.
- NAVAREA and National Coordinators in the affected areas or areas likely to be affected should consider tsunami warnings and warnings for other natural disasters as exceptional circumstances and should immediately broadcast such warnings using the highest priority and all existing means as appropriate.
- Ships, when within affected areas, should consider immediate re-broadcasting of any tsunami warnings and/or any other natural disaster warnings they might receive using all available means (e.g. VHF radio) as appropriate. In addition, ships should consider activating any emergency response procedures and arrangements they deem necessary and to prepare, depending on the circumstances, for the conduct of search and rescue operations. Ships should also consider, in the light of the prevailing circumstances, the need for changes to planned navigational routes.

The Chairman then invited the NAVAREA I Coordinator, who attended both COMSAR 9 & 10 and assisted in the workgroup established to review the report of the IMO CG on Tsunamis to report.

The NAVAREA I Coordinator noted that at COMSAR 9, IMO had offered the use of its maritime GMDSS communication facilities, particularly the International SafetyNET system, to distribute warnings from regional centers to both national authorities and vessels at sea (COMSAR/Circ.36), attached in this report as PDF at the end of the Annexes. Tsunami warning centers and others wishing to use the International SafetyNET system were invited to register with the IMO International SafetyNET Coordinating Panel to become authorized data providers. To date none have registered, but some of the regional organizations are still at a very early stage of development.

It was recognized that in respect of the threat to shipping:

- a tsunami poses a significant risk only to those ships in shallow waters and in port areas;
- ships in port are not required to maintain watch on GMDSS communications equipment, consequently a separate system for promulgating warning messages needs to be established within each port; and
- tsunami warnings need to be sent to those ships most at risk in a rapid manner.

Further, he noted that the Sub-Committee recognized that the most important communication links were those, namely:

- between regional and national centers; new links being established appear to be predominantly by e-mail or through the WMO Global Telecommunications System, however the use of the International SafetyNET system remains an option for IOC/UNESCO and relevant authorities if required;
- within nations to coastal regions and ports; it was agreed that while this is a national issue, IMO, IHO and WMO can guide and support national authorities through national or regional capacity building programs; and

- to both SOLAS ships and non-SOLAS ships/fishing vessels in shallow coastal waters; NAVTEX can be used for these warnings, but there may be no stations currently covering the affected areas and non-SOLAS ships/fishing vessels may not carry suitable receiving equipment, therefore other means such as local news broadcasts and warnings on maritime VHF channels should be considered.

Finally, the NAVAREA I Coordinator stated that it was decided that further discussion/correspondence on this subject was not necessary within IMO, but that options to use the IMO GMDSS communications facilities through either the relevant WWNWS NAVAREA Coordinators or the METAREA Issuing Services, should remain available to national or regional centers if required by IOC/UNESCO.

The NAVAREA I Coordinator then noted that it was clear that what is desired is a complete Tsunami Warning System which consists of a real-time quake monitoring capability, a real-time sea level and wave monitoring capability, bathymetric models of coastal areas that can be used for analysis, and finally a communication system that can be used for the promulgation of warnings. He emphasized the point that the communication aspect is just one part of a tsunami warning system. In the Pacific Ocean region where there is a complete system in place at the Pacific Tsunami Warning Center (PTWC) in Hawaii, they currently send warnings out via e-mail and WMO global telecommunications service messages to national authorities.

He also emphasized that the responsibility for preparing such warnings belonged to national authorities and not NAVAREA Coordinators. An issue in offering the SafetyNET service as a communications method to issue a warning is that anyone with a receiver would be able to receive the warning. Some countries are concerned about the openness of this method as private individuals may receive the warning prior to authorities and create unnecessary and uncontrolled panic if it is perhaps a false alarm. The NAVAREA I Coordinator then cited that currently in NAVAREA IX, there is a system that when a tsunami warning is received it is promulgated as a coastal warning via NAVTEX. The NAVAREA IX Coordinator concurred with this statement. The NAVAREA I Coordinator then proposed that instead of issuing tsunami warnings via SafetyNET, the Commission may want to consider using NAVTEX. A tsunami at sea in deep water is not a hazard to ships and as it approaches the coast it becomes more of a hazard thus making it not a NAVAREA hazard but more of a coastal warning type of hazard.

The NAVAREA I Coordinator next discussed that there are two types of a tsunami warning message regarding safety of navigation, the first is the pre-tsunami message where the mariner is being warned of a tsunami and the second is the post-tsunami message identifying damage to navigational aids, seafloor and shoreline changes, changes to charted wrecks positional information, and new surface and subsurface hazards. He then stated that standard warning text that is to be used by Coordinators for both types of these messages should be in the WWNWS guidance documents as tsunamis are not an everyday occurrence and the Commission needs to provide some guidance for Coordinators. The Chairman concurred and stated that this would be included as part of the on-going document review and that pre and post templates would be established and included. These templates are necessary to ensure that the priority (status) and format are consistent, the contents of the message meet the requirements of shipping for information about the tsunami hazards, and that the messages are well targeted and plainly understood.

Further discussion then centered on both the pre and post tsunami warning messages and the exact role of the NAVAREA Coordinator. The NAVAREA X Coordinator cited his Self-Assessment and the fact that the Bureau of Meteorology has the responsibility to send out pre-tsunami types of warnings in Australia. With regards to a post-tsunami message and the fact that they affect navigation safety aids, he agreed that this was something that was the responsibility of the Commission. The representative from Ecuador identified that their country always interacts in tsunami warning exercises with Chile via local authorities and not the NAVAREA Coordinator. The NAVAREA XV Coordinator (Chile) confirmed that these messages are disseminated to national emergency authorities and then they disseminate to the people but added that they would also disseminate the message as a NAVAREA warning. He noted also that the Chilean Hydrographic Service may be in a unique situation as they have the capability to receive tsunami information from two methods, their own buoy system and the PTWC in Hawaii, but they have not issued a warning in the past 10 years. The representative from Ecuador indicated that they would also issue a warning via NAVTEX and that any type of template to be used would be helpful. The IMO NAVTEX Coordinating Panel Chairman noted that in the IMO NAVTEX Manual, there is a paragraph on tsunami warnings stating that they should be promulgated immediately.

The Chairman noted that the Commission has offered a communication system that is effective and world-wide today and that it is now up to the IOC to decide if they want to use it. The NAVAREA I Coordinator cited that the basic problem is that a tsunami affects both ships at sea and what is on land and again raised the issue that the national authorities have concerns that warnings are imprecise as to exact size of the tsunami and the scale of potential damage and that another organization which is responsible for the safety of ships at sea may create panic on land. At the IOC meeting, it was therefore decided that a tsunami warning center would notify national authorities of the warning which in most cases is the national meteorological society. It is then the responsibility of each country to disseminate via all means; television, radio, beach sirens, etc. The problem with this approach is that these means may not be the best and most appropriate for ships and small boats in coastal waters and in port. He noted that if vessels are equipped with a NAVTEX and/or SafetyNET receiver, then these warning messages need to be promulgated via these methods also to ensure widest dissemination, but that this Commission needs to work with the IOC and respect national sensitivities to the dissemination of this type of information. The IMSO representative stated that the Commission has a duty to promulgate these types of messages, and there needs to be guidance in A.706 as to how to format them, so that ships at sea can correctly get this message. The Chairman concurred and referenced IMO Circular 36 (Annex I) which states the responsibilities for retransmitting this information to other ships in the area.

The NAVAREA I Coordinator then emphasized the issue of NAVAREA Coordinators having difficulty in getting the information about a potential tsunami as in most parts of the world there is no link between detection and broadcast of information. He then suggested that perhaps the PTWC should be an authorized SafetyNET provider to disseminate these types of messages directly. The Chairman noted that the messages from the tsunami warning system are automatically generated and that all that would be required is for them to modify their software or addressee listing to include NAVAREA Coordinators.

The WMO representative noted that it is important to consider all processes in addition to the offer of IMO to have tsunami warning centers use SafetyNET, especially in those areas that are not covered by NAVTEX. He then noted that whether it is a regional tsunami warning center, a national warning center, a meteorological issuing authority, or a navigation

issuing authority, the real issue is that it is important to identify which message should be promulgated by which authority. He stressed the need to have an agreement and criteria established between NAVAREA Coordinators, METAREA Issuing Services, and the tsunami warning centers in order to make this process as efficient and automatic as possible. Not sure if system used in the PTWC could be used by other regional centers but we need to have an agreement between responsible organizations. It was noted that at the ETMSS meeting in January 2007, they will work in more details and role of each of the above organization and try to find a practical solution to provide information. The WMO representative identified that it would be helpful to have a listing or graphical representation as to who is responsible for meteorological and navigation safety messages. The Chairman concurred and asked for the WMO to provide the meteorological information necessary to create this. The Chairman also noted that PTWC has different types of messages with varying threat levels. The Chairman asked for an action to be assigned to provide a listing of current types of messages that are being sent by the Pacific Tsunami Warning Center to be used as a basis and where the experts would believe that a message needed to be promulgated.

The NAVAREA I Coordinator noted that having looked at this tsunami warning issue from an Indian Ocean basis, the delegates at the IOC were also concerned in other parts of world, specifically Africa, the Mediterranean, and the Caribbean and that a draft plan was put forward to establish a worldwide tsunami warning system. He then noted that although it would be nice to have a system that worked everywhere in the world, the reality of the situation is that for the foreseeable future it will be a mix and match situation unique to each region as each has a different view on how the warning service should be setup. The Chairman finally stated that regardless of the solution, whether it is on a regional or even world-wide basis, the Commission still requires a standard message template to be used for these types of messages and asked for assistance in compiling these.

The Chairman then noted that although the 2004 tsunami in the Indian Ocean has brought attention to this particular type of hazard, there are others that pose threats to mariners at sea such as rogue waves. These are a regular occurrence in certain areas of the world and research has determined that there are 10 rogue waves transiting the oceans at any given time. He then cited an example of the cruise ship Norwegian Dawn that was off the East Coast of the United States that was hit by a rogue wave that was measured to be over 70 feet high. The WMO representative concurred with these statements and identified that some research work is being done with regards to this phenomenon. He noted that the interaction between swell and currents can indicate the occurrence of a rogue wave, but it is difficult to observe as these giant waves are seldom in coastal areas where they can be observed visually and they are not persistent. Broadcast warnings have been generated by South Africa to try to inform mariners of risky situations. The IMSO representative cautioned the Commission to keep this issue in perspective with regards to the ability to detect and react to this type of wave knowing the life span of it. The Chairman concurred with this concern and agreed that more information will be required before the Commission can make a decision on this and that it will be addressed as part of the on-going document review.

3.1.3 Amendments to IMO Resolution A.888 - Other Satellite Service Providers

The IMSO briefed the Commission on progress within the IMO on the revision of IMO Assembly Resolution A.888 (21): Criteria for the provision of Mobile-Satellite Communication Systems in the GMDSS.

The revised text of this important resolution had been developed by a CG of COMSAR, which was reported in COMSAR 10/5. COMSAR 10 had endorsed the work of the CG and forwarded the revised text to MSC 81. However MSC 81 had been unable to agree to progress for evaluating and approving new satellite providers and had called for further legal advice. MSC 82 (Istanbul, Nov/Dec 2006) will look at the issue again and is expected to make a decision on the matter. The CPRNW decided to urge its members to brief their national delegations to MSC 82 that the technical criteria in the revised text are vital for the proper provisions of Navigational Warning services in the future, and must be actively supported at MSC. Delegations should also be urged to support a solution that allows for the evaluation of potential new providers to be done by MSC itself.

The MSC has been advised that, in order to establish a proper legal framework for the MSC to undertake such approval, it will be desirable to amend SOLAS Chapter IV. The United States has submitted a proposed amendment for this purpose, but many countries believe the text as proposed goes beyond what could be approved now and the matter should be considered in the context of a complete review of the GMDSS and revision of the whole of SOLAS Chapter IV.

The IMSO representative stated that it should be noted that IMO Resolution A.888 defines the criteria for satellite service providers participating in the GMDSS and that it was originally drafted specifically for Inmarsat and is now being amended to allow new satellite service providers to participate. This issue is of interest to the Commission because the work of the CG has identified a number of problems with redefining the SafetyNET service as it was designed to meet the needs of the WWNWS.

The Chairman asked for clarification from the IMSO representative if potential new satellite service providers would be required to provide all services. The IMSO representative responded that an official formal position on this issue has not been taken by the IMO MSC. The Chairman expressed concern that if additional satellite service providers are allowed into the system then there is a potential burden on NAVAREA coordinators to be required to promulgate, monitor, and mange their messages across multiple providers over their area responsibility. This would add additional operational costs and even potential additional staffing for NAVAREA Coordinators and their host organizations. The IMSO representative concurred and stated SOLAS vessels would have the choice to use either provider and the impact would be transparent to them but carry a significant burden to the Commission. Thus the maritime customers will not have any issues with this and encouraged the NAVAREA Coordinators to discuss this with their national administrations and the potential increased burden with these changes.

The Chairman noted a potential serious ramification resulting from the fact that if other satellite service providers are not required to provide all GMDSS services, the WWNWS could end up with no service provider at all. If the argument is that it is not cost beneficial for them to do so, then why would Inmarsat feel the need to continue to provide service. The IMSO representative concurred and noted that as a matter of principle the Commission should embrace new technology and competition by allowing other satellite service providers into system, but it should be on terms of the established system. He then noted that although Res. A.888 states that service providers would have to meet charges criteria for varying classes of safety and distress messages.

The Chairman closed the discussion by stating that it is important that we are aware of this and the potential monetary burden and additional watchstander staffing requirements

with regards to increased workload and different processes to transmit and monitor across different satellite service providers. The Chairman also noted that there could be other operational burdens such as formatting and coding of the same message multiple ways as each service provider would have a different process. The NAVAREA X Coordinator asked that if at MSC 82 at the end of year approves the need for additional providers what is the timeframe for implementation. The IMSO representative noted that administratively to get a new satellite administrator into GMDSS, a draft application would first go to a national authority to sponsor at MSC and then MSC will pass application to IMSO for evaluation by convening a group of experts to assess the application and ensure that the service provider meets criteria established in Res. A.888 and would then report back to MSC its findings and then MSC would issue a statement of acceptance. After this acceptance statement, then the service provider would need to establish technical delivery. This could take 3 years or possibly longer. The Chairman noted that it could be even longer as each NAVAREA Coordinator would have to purchase equipment, train personnel, test, and implement the procedures to comply.

The NAVAREA I Coordinator asked that if a NAVAREA Coordinator was not in a financial position to purchase extra equipment and staff appropriately would it have the authority to specify portioned service areas in the WWNWS. The IMSO representative noted that this would add another layer of complexity in the overall scenario and that the SOLAS amendment could open up regional solutions. For example ships sailing exclusively in the Mediterranean Sea could use one unique system that would only affect NAVAREA III which could be different from all of the other NAVAREAs. The Chairman expressed concern with this type of arrangement and asked whether or not IMO would dictate that all NAVAREA Coordinators would have to use international system or as a NAVAREA Coordinator would they have the authority to choose which service provider they would support. Further, what would be the impact?

The WMO representative noted that there would be an additional cost for METAREA Issuing Services too. We are all doing this at a financial burden to our organization – concerned that decisions would be made simply on a cost basis. No criteria included for costs (level of rates, special rates) applied to MSI providers. NAVAREA X noted that Australia was aware that this was taking place but did not know that they might have to support multiple satellite service providers and asked what would make this a requirement. The Chairman cited that the SOLAS regulations would be re-written to reflect this and incorporated into all of the IMO guidance documents. The IMSO representative noted that if you are a maritime country, then your port state inspectors would have to be properly trained to go onboard ships to verify compliant operations.

The NAVAREA I Baltic SUB-AREA Coordinator stated that if the Commission is discussing and looking at issues with regards to additional service providers to promulgate messages then another alternative solution could be web-based maritime safety information. He understood that technology may not be here today and that if we are looking for a solution in the future then we should be discussing this. The Chairman noted that at this timeframe (2006) technology is not there as it cannot invoke alarms, cannot suppress repetitive message traffic, cannot ensure information is obtained and for that matter, what web url would they go to get messages. The NAVAREA I Coordinator stated that this is an important consideration as to the future strategy and it may be perhaps premature to rewrite SOLAS 4 at the current moment and we would like to delay more service providers to come along now and be able to migrate to internet, email , broadband based. The IMSO representative noted that there are two primary issues with web-based messages with the

first being that it is premature to look at current capabilities that are untested for pull messages and way too costly for it to happen in marine environment and the second is that the Terms of Reference for Res.A.888 is to address what Inmarsat does today and not tomorrow. The representative from Ecuador noted that he was a seagoing officer for many years and that the current system satisfied his needs and that a whole new system will be a jungle and won't be able to see the sun and would like to be delayed if possible. The NAVAREA I Coordinator noted that the definition of a navigation warning in SOLAS is that it is "broadcast". The representative from Inmarsat read the following text which has been submitted for the draft revision of the IMO SafetyNET Manual, paragraph 6.2:

> *Some LESs may provide e-mail or Internet (direct) drop access to the SafetyNET services, which allows registered MSI providers to send EGC messages using e-mail from any computer which accesses the Internet. Due to the nature of the Internet, e-mail does not guarantee that EGC messages will be received by the addressed LES without delay and hence by ships at sea. This may affect safety of life at sea and safety of navigation. In addition, e-mail does not support any direct cancellation procedure, if category (b) repetition codes are used, so MSI providers should have a separate or additional agreement/procedure with the addressed LESO/s to cancel the EGC broadcast. As a result, the IMO International Coordinating SafetyNET Panel does not currently recommend that MSI providers use basic/simple e-mail and instead use the two-stage registered access procedures only.*

3.1.4 Long Range Identification and Tracking (LRIT)

The IMSO advised the Commission that the LRIT system is planned to begin a phased implementation on 31st December 2008, by which time the service needs to be available globally. The distance from the coast at which data can begin to be obtained has been agreed as 1000 nautical miles. The data collected by the system will be available to three levels of organizations; Port State, Coastal State and Flag States. There is likely to be a number of national systems which will form part of an international coordinated network. All the data must pass through an International Data Exchange. The option of using AMVER as this Exchange was rejected because it was considered as a national rather than an international system.

The IMO also recognized that there is a requirement for an oversight mechanism to be established for the International Data Exchange, and this LRIT Coordinator needs to be appointed at MSC 82 in December. IMSO has been asked to do this and expect to accept the request to oversee the practical implementation. The establishment of LRIT is considered unlikely to have significant impact on the WWNWS; however, the data accumulated may help understand the pattern of ship movements for coastal states.

As well as the Port, Coastal and Flag states, certain SAR organizations will also be entitled to receive the LRIT information for up to 1000 nautical miles from their coast. Port States will also be entitled to receive data from ships anywhere in world which are due to arrive in one of their ports. There will be a network of several data bases both National and Regional. An International Data Exchange will collate information and pass it pack to the National or Regional centers. Countries will have the option to choose which system they wish to implement and will be charged for the data they receive.

The Minimum LRIT report will be defined in SOLAS and is likely to be:

- Ship ID (IMO Number* or MMSI)
- Position
- Time of position

The frequency of reports will be at least every 6 hours.

* The IMO number cannot be programmed into the Inmarsat C Terminal, but will be traced through a look-up table of Inmarsat C/IMO numbers on shore.

A specific communication system to be used has not been defined by IMO but it is likely to be Inmarsat C. Any other systems which could be available in the future need to be approved by Flag States. A high level of compliance is expected in the early stages with most ships using Inmarsat C during the initial implementation.

The Commission questioned the impact on the WWNWS due to the possibility of extra warnings required to promulgate outages etc and were advised by IMSO that the system should be as automatic as possible with little or no intervention by the ship, so it was unlikely that warnings for system failures will be required.

The meeting raised a number of questions:

- IMSO confirmed that there could be no guarantee that exact vessel will be identified by LRIT data because of the historical problems surrounding the registration of Inmarsat C terminals; however, the registration data will be regularly checked by PSC during inspections by radio surveyors.
- United Kingdom reminded the meeting that there was no carriage requirement for GMDSS ships staying within Sea Area 2 to carry Inmarsat C, and that the implementation of LRIT may lead to more ships fitting Inmarsat C terminals which in turn could lead to those ships requesting more MSI over SafetyNET.
- IMSO suggested that alternative methods of providing LRIT data could be Inmarsat D+ or the Iridium system The first generation of ships participating in LRIT without Inmarsat C at the moment are likely to be using Inmarsat Mini C.

3.2 NAVAREA Assessments of Navigational Warnings Services by Coordinators

Under this agenda item, all NAVAREA Coordinators were asked to submit a Self-Assessment based upon the template provided by the Chairman earlier in the year. These reports were to highlight their experiences, problems and successes in implementing the GMDSS for navigational warnings within their respective service areas. The reports also discussed, wherever possible, feedback from users on their views on the efficiency and value of the services provided.

Acknowledging the fact that these assessments represented valuable operational experiences and in an effort to reduce the size of these meeting minutes, each of the Self-Assessments are posted at the IHO website www.iho.int > Committees > CPRNW and not included as part of this report. The Chairman then offered the opportunity for each representative to present their NAVAREA Self-Assessment.

3.2.1 Individual Assessments

3.2.1.1 NAVAREA I (UNITED KINGDOM)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA I Coordinator reported on the recent BALTICO meeting of the National Coordinators from the NAVAREA I Baltic Sub AREA and emphasized how useful this type of meeting can be for all those concerned. One of the action items of this meeting had been the consideration of a similar meeting of the National Coordinators for the rest of NAVAREA I. It was recommended that other NAVAREA Coordinators consider doing the same. NAVAREA IX strongly agreed with the idea that National Coordinators should meet at least once per year to ensure as a minimum that contact details were exchanged and confirmed, and that such meetings would be an excellent forum to exchange information on each others systems.

The NAVAREA I Coordinator pointed out that there may be funding issues surrounding such meetings as often the countries who would gain the most benefits would be the ones who could not afford to go. The Chairman suggested that the Regional Hydrographic Commissions (RHCs) could invite National Coordinators to their meetings and that the RHCs could be the key to getting funding for these type of initiatives along with training.

Following an IHO mission to the Caribbean in 2006, there had been a change in strategy to the approach towards capacity building in the area in that “anything was better than nothing”. The emphasis should be in starting with establishing focal points for the exchange of MSI in all the islands and initiating alternative communication routes for the dissemination of MSI. NAVAREA I offered to accept messages for forwarding or promulgation and reported that there was a necessity to establish more SafetyNET Coastal warning areas within the region.

The Chairman congratulated the United Kingdom for its efforts in the area but reminded the members that countries should be encouraged to send information to their appropriate NAVAREA Coordinators. The Chairman then asked when NAVAREA I would have a web site based MSI system and was advised that no commitment could be guaranteed on that topic at the moment.

3.2.1.2 NAVAREA I BALTIC SUB-AREA (SWEDEN)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA I Baltic Sub-AREA Coordinator informed the meeting that he would like to establish a SafetyNET coastal warning area for the Baltic Sea in line with the system used by Australia, whilst not suggesting any changes to the current NAVTEX arrangements in the region, and requested comments from those present. IMSO responded by reminding the meeting that ships should only have a single source of receipt of MSI and that there should not normally be any duplication. However, if the NAVAREA I Baltic Sub AREA Coordinator’s suggestion was motivated by the requirement to cover gaps in the reception of MSI in the region then this could be acceptable.

A New web site is projected to be implemented by next autumn.

3.2.1.3 NAVAREA II (FRANCE)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA II Coordinator confirmed that their web site is not real time, but is up-dated once per week, with the information being based on the latest data available on Tuesday morning. There were no current plans for a dedicated real time web site.

The Chairman returned to concerns about the facilities and capabilities of African countries within NAVAREA II to participate in the WWNWS, and informed the Commission of a planned IHO Capacity building training course for the Caribbean Sea in 2007. He also stated that he would appreciate the attendance of the NAVAREA II Coordinator at the African Capacity Building CPRNW Training to gain experience in preparation for similar CPRNW training for countries within NAVAREA II.

IMSO noted that there can often be a problem with training candidates from developing countries, because it is often the case that once they have been trained they are promoted out of their relevant positions of expertise. IHO stated that they are addressing this issue by implementing high level awareness programs designed for managers and directors of organizations and authorities.

3.2.1.4 NAVAREA III (SPAIN)

Self-Assessment Report submitted and available at the IHB website.

The NAVAREA III Coordinator presented a very extensive explanation of the current and planned status of NAVTEX in the Mediterranean Sea, which was agreed during the very successful NAVAREA III meeting held at the IHB in Monaco earlier this year.

The Chairman of the Commission congratulated NAVAREA III Coordinator on the efforts made in the region and highlighted the process as an excellent example of how the system of coordination should work. The Chairman of the IMO NAVTEX Coordinating Panel endorsed this view and reiterated that this exercise had been a brilliant example of how the establishment of service areas need to consider the needs of the users as well as administrations. The main advantage of the meeting in Monaco was that the reasons for establishing service areas could be explained to all the administrations in the area at the same time.

The IHB offered to supply similar assistance to any other region that had a requirement to get a number of authorities together in order to solve a co-ordination problem. The NAVAREA IX Coordinator asked for help in the region of NAVAREA IX with the establishment of service areas etc.

3.2.1.5 NAVAREA IV & XII (UNITED STATES)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA IV & XII Coordinator informed the meeting that the statistics for web site hits were unfortunately not included due to technical problems but will hopefully be added next year. The information on the web site is not real time but is up-dated once every 24 hours.

It was confirmed that the capacity building remarks regarding local warnings mentioned in the NAVAREA IV & XII report was in relation to SafetyNET and that the following countries had all begun to provide information for promulgation by NAVAREA IV: Mexico, Guatemala, Colombia, Barbados, Belize, St. Kitts and the Netherland Antilles.

NAVAREA X advised the Commission that it was planning to implement a similar system in NAVAREA X with a project to use idents [P] and [S] for Papua New Guinea and the Solomon Islands respectively and asked if this would it be acceptable. The meeting agreed that this would be an adequate solution in the interim but must move towards defined SafetyNET Coastal Warning Areas in the long term. It was also requested that experience of this type system could be included in future training courses.

3.2.1.6 NAVAREA V (BRAZIL)

Self-Assessment Report not submitted or posted at the IHB website.

The NAVAREA V Coordinator identified that there are no NAVTEX stations in NAVAREA V. SafetyNET messages are broadcast only in English once per day with local and coastal warnings broadcast twice per day via HF.

All warnings in force are posted on their website and there is evidence that more and more people are using the internet to check for Navigational Warnings in the region. The web site is updated 5 times per day and was considered almost real time.

3.2.1.7 NAVAREA VI (ARGENTINA)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA VI Coordinator informed the meeting that Argentina had been in discussions with the Chairman of the NAVTEX Panel over their local problems regarding national language broadcasts on NAVTEX. This meeting had also been used for very valuable discussions to take place with the representatives from NAVAREA V to improve communications between the neighboring NAVAREAS.

Navigational Warnings are currently posted on the Hydrographic Office website and are updated daily, with a disclaimer that they are not real time and should not be relied upon due to possible corruption.

A minor correction to the report submitted was requested in point 2.1.2 to change “Morse” to read Radio Telex.

3.2.1.8 NAVAREA VII (SOUTH AFRICA)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA VII Coordinator was not present and the Chairman emphasized paragraphs on capacity building from the report of the NAVAREA VII Coordinator and highlighted the comments on the new MRCC established in Mombassa in particular.

IMSO wished to emphasize paragraph 8 from section 3 of the report of NAVAREA VII.

3.2.1.9 NAVAREA VIII (INDIA)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA VIII Coordinator had no additional information to add to their report apart from the conformation that their warnings are posted on the web.

3.2.1.10 NAVAREA IX (PAKISTAN)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA IX Coordinator informed the meeting that NAVTEX had been installed in the region since 1996. All the countries in the NAVAREA were listed and it was agreed that this was an area of particularly heavy traffic, with many sources of MSI.

Navigational Warnings are promulgated via SafetyNET and NAVTEX with all warnings in force being included in the Weekly Notice to Mariners. All SafetyNET transmission are monitored via a MES.

Because of concerns about the reception of MSI from certain NAVTEX stations in the region, all warnings are also re-transmitted via SafetyNET as well. Some local research had found that most of the ships preferred to receive the messages via SafetyNET.

- The Chairman of the NAVTEX Panel had a number of observations for the region:
- Reports had been received that the Damman NAVTEX station was not in operational.
- There was concern about the lack of NAVTEX stations in the entrance to the Red Sea.
- The Panel would like to see the establishment of Service areas in the region.
- There was a possibility of interference because Karachi and Chennai have the same B1 character. This was confirmed as not being a problem.

The Chairman informed the Commission that MENAS had identified themselves as SubAREA Coordinator for NAVAREA IX and asked Pakistan to clarify the situation as they have not requested or received approval from the IHO and CPRNW.

3.2.1.11 NAVAREA X (AUSTRALIA)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA X Coordinator informed the meeting that the list of warnings in force is not broadcast. Australia had tabled a paper suggesting that this is not necessary for consideration for amendment to the SafetyNET Manual.

The main problems with port state control inspections of Inmarsat-C terminals mentioned in the report could not be specified as to whether they were concerned primarily with errors due to the configuration or equipment itself.

IMSO endorsed that PSC inspections of MSI equipment was very important and trusted that are other countries did similar things.

The NAVAREA IX Coordinator asked how the establishment of a Sea Area A3 with the system of Coastal warnings via SafetyNET worked. Australia informed the Commission that the system was currently working very well following a few problems in the early days until vessels realized that Australia did not have any NAVTEX stations.

Australia clarified the item in their report that the turn around time for the promulgation of warnings was for all warnings and not just important warnings.

Following a brief discussion on the possibility of identifying the type of persons visiting web sites dedicated to Navigational warnings, the IHB stressed that it was most important for all NAVAREA Coordinators to inform the IHB of any changes to web addresses immediately so that the IHO web page could be updated.

3.2.1.12 NAVAREA XI (JAPAN)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA XI Coordinator requested an exchange of e-mail addresses for Points of Contact for Tsunami warnings.

The Chairman reminded the meeting about the importance to issue warnings regarding missile firing etc in accordance with the appropriate documentation in particular relation to the tests carried out by the DPR Korea last year.

3.2.1.13 NAVAREA XIII (RUSSIAN FEDERATION)

Self-Assessment Report submitted and available at the IHB Website.

The NAVAREA XIII Coordinator was not present but the Chairman emphasized the following points included in the report submitted:

- NAVAREA XIII request to change the western limit of the new proposed Arctic NAVAREA XX which was rejected by Norway.
- Possibility of Caspian Sea and Black Sea becoming Sub Regions, which was recorded as an action item to investigate by the NAVAREA III Coordinator. The WMO reminded the meeting that the subject of METAREA for any new Sub Areas and the proposed new NAVAREAS should not be overlooked.

The Chairman also noted that it is necessary to be mindful that there should be an International solution to the Northern Route issue and not a national or local one.

3.2.1.14 NAVAREA XIV (NEW ZEALAND)

Self-Assessment Report not submitted and NAVAREA XIV Coordinator not present.

3.2.1.15 NAVAREA XV (CHILE)

Self-Assessment Report not submitted.

The NAVAREA XV Coordinator informed the meeting that their navigational warnings were posted on the web.

~~Advice was requested as to the possibility to change the western NAVAREA limit to agree with the national SAR limit with New Zealand, or change the national SAR limit to agree with the existing NAVAREA limit. It was agreed that it would be easier to move the SAR limit as this would not effect the coding of Inmarsat EGC receivers. These discussions need to place between Chile and New Zealand. IMSO reminded the meeting about the history of defining the Chile western SAR limit because of the vast areas for SAR responsibilities concerned.~~

Post meeting note - Paragraph 3.2.1.15, in regards to the inquiry for changing the western limit of NAVAREA XV, Chile has informed the CPRNW Chairman that they no longer wish to pursue this matter.

India questioned whether the provision of new satellite services would affect current NAVAREA limits and was informed that this would not be the case as the necessity to adhere to the current limits had been included in the terms for new companies in Resolution (A)888.

3.2.1.16 NAVAREA XVI (PERU)

Self-Assessment Report not submitted and NAVAREA XVI Coordinator not present.

3.2.1.17 ECUADOR

Self-Assessment Report submitted and available at the IHB Website.

Although not a NAVAREA Coordinator, Ecuador as a National Coordinator reported on the development of new NAVTEX stations which has been ongoing since 2003. In 2004, the first NAVTEX station was established on Galapagos Island. Future plans are to cover the Ecuadorian continental waters and the waters around the Galapagos Islands with a total of nine VHF stations with four on the islands and five on the mainland with all being linked to the Ecuadorian Coast Guard and Port Captains. The Coast Guard currently disseminate messages on 518 kHz in English and 490 kHz in Spanish and also broadcast them on VHF Channel 26. These notice to mariners and meteorological warnings are also available on their website which is updated once per day. The representative from Ecuador also noted that it was estimated that in 2005 some 121,000 cruise ship passengers were served by this new NAVTEX station.

The Chairman thanked Ecuador for their report and for them attending their 1st CPRNW meeting and expressed his hope that their national report could be included as part of the NAVAREA XII report next year.

The IMO NAVTEX Coordinating Panel Chairman asked the representative to please coordinate station placement with his panel and recommended them to coordinate their activities with the adjoining NAVAREA XVI Coordinator (Peru).

The Chairman thanked the members of the Commission for using the new standard template for their reports of NAVAREA Assessments of Navigational Warnings Services by Coordinators and requested feedback in relation to any additional fields which they felt should be added to the format.

3.3 Broadcast Systems and Services

3.3.1 Report of the IMO NAVTEX Coordinating Panel

The Chairman invited the Chairman of the IMO NAVTEX Coordinating Panel to provide a status of NAVTEX services. See report in Annex F.

3.3.2 Report of the IMO SafetyNET Coordinating Panel

The Chairman spoke on a couple of issues. The first concerned a discussion between Denmark and United States, at IMO Headquarters in London, about the use of NAVAREA IV for a SafetyNET coastal warning service, in lieu of NAVTEX service, for dissemination of maritime safety information for the Kook Islands NAVTEX station. Kook Island station is an unmanned NAVTEX station and due to its remote location and extreme weather conditions in the area, maintenance at the site has become problematic and increasingly difficult when technical issues arise. Denmark is investigating alternatives to ensure coverage and continuity of operations for this NAVTEX service area. Denmark provided examples of the information promulgated by Kook Islands station to the NAVAREA IV coordinator for review. After review of the message content and amount promulgated, NAVAREA IV concerns centered on meeting the operational needs and capabilities of the vessels in the area, and the respective SafetyNET carriage requirements of those vessels. Examples of message traffic included weather reports, ice reports and navigational warnings. Based on the current NAVAREA IV SafetyNET schedule, a coastal warnings service for maritime safety information would be most appropriate and could meet the current 4 hr dissemination timeframe. Due to the large fishing fleet within this area, questions were raised on whether these vessels would have the appropriate equipment to receive this safety related information. Discussions continue between NAVAREA IV and Denmark, as they evaluate the feasibility of this option.

The Chairman also reminded members to be diligent in their need to establish continuity of operations plans, and for those who have, to be cognizant to continually review and update their respective business continuity procedures. He also pointed out the value of the WWNWS CD in this regard, with respects to its compilation of WWNWS guidance documents, points of contact and other important reference documents. He encouraged all members to review and comment on the CD's content and to provide updates to advance its usefulness.

3.3.3 WMO Liaison Report

The WMO Representative presented briefly some results of the 2nd plenary session of the JCOMM that took place in October 2005 in Halifax, Canada. The presentation focused mainly on the Expert Teams of the Services Programme Area including the Expert Team on Maritime Safety Services (ETMSS), Expert Team on Sea Ice (ETSI), Expert Team on Wind Waves and Storm Surges (ETWS) and the new Expert Team on Maritime Accident Emergency Support (ETMAES). He then introduced the agenda for the forthcoming ETMSS II, which will be held in Angra dos Reis, Brazil from 24 to 27 January 2007 (back to back with ETMAES I, 29 – 31 January) and highlighted the items of common interest with CPRNW. The provisional agenda for ETMSS is included as Annex H.

The WMO representative confirmed that specific guidelines and common abbreviations for NAVTEX products have been formally approved by JCOMM II and that the JCOMM also recommended that ETMSS cooperate with the IHO/IMO to consider the use of the web domain "gmdss.org" for the dissemination of all GMDSS MSI.

3.4 Operational Lessons Learned for Consideration as Improvements to the WWNWS

3.4.1 MSI Outside Limits of WWNWS

3.4.1.1 Joint IMO/IHO/WMO Correspondence Group on Arctic MSI Services Update

The Chairman noted that a paper documenting the Joint IMO/IHO/WMO CG on Arctic MSI Services findings would be submitted to COMSAR 11 in February of 2007 and is due to the IMO Secretariat by the end of November 2006. He encouraged all members to visit the IHB website at http:///iho-discussions.org to review documents and reminded all that there is still time to provide comments. The main points that will be captured in this paper and reported to the COMSAR will be the identification and endorsement of the new Arctic NAVAREA Coordinators, the numbering schema of the new Arctic NAVAREAs, and the boundary limits of the new Arctic NAVAREAs that have been agreed upon. It will also identify what boundary limits are still being negotiated and a generalized statement that makes recommendation that service in these new NAVAREAs be on a 24/7 year round basis. The graphic depiction of the new Arctic NAVAREAs will also be included as part of the report using the originally proposed limits until an agreement can be reached between Norway and the Russian Federation. The Norwegian representative concurred with this.

The Chairman then asked Inmarsat if they could assist in determining the amount of SOLAS vessel traffic that is currently navigating in the Arctic regions. The Inmarsat representative agreed to send an announcement message to all ships in the Arctic requesting that they send a position report in order to make some assessment as to the coverage of Inmarsat in northern latitudes.

The Chairman reminded everyone of the IHO web based discussion forum where one of the areas is for the Joint IMO/IHO/WMO Arctic Expansion CG. In order to download or submit comments, each person needs to send a user name and password of 6 characters to the IHB representative (Mr. Steve Shipman) who will then register them on the system.

3.4.1.2 Inmarsat-C EGC SafetyNET Report

The Chairman mentioned that the Commission asked Inmarsat to deliver a presentation on current activities a few years ago and everyone found it beneficial and thus it is now a standing agenda item.

The Inmarsat representative delivered a presentation that covered two main areas with one focusing on technical and operational issues and the other on current usage statistics. The Inmarsat representative first presented a graphic showing side-by-side comparison of a standard maritime Inmarsat-C and an Inmarsat Mini-C operational configurations with distress capabilities. It was noted that both provided exactly the same capabilities, functions, communication protocols, and alarms with the difference between the two

configurations being that the Mini-C is smaller in size, less expensive to purchase, with lower power consumption and lower transmit power. He noted that currently there are 74,000 Inmarsat-C and 22,000 MINI-C MESs. The IMSO representative noted that with the Mini-C configuration the core functionality is located in the base of the antennae unit thus a user can use a much smaller and more flexible cable. He then recommended this Mini-C configuration for installation of equipment in offices and buildings as it is much easier to install. The Chairman stated that this is the exact configuration that is used in the United States and the NAVAREA IV and XII watch desk and noted that it is also easily transportable as it can be disassembled and even moved for Business Continuity purposes. The representative from Inmarsat noted that at the moment there are about 8-10 different maritime models available in the Mini-C market.

The statistical part of the presentation depicted information from the past 12 months with regards to the number and size of EGC SafetyNET messages per ocean region, the number of EGC SafetyNET messages by service type per ocean region, and the average percentage of EGC SafetyNET messages of each type per ocean region. It was noted that on average 600-730 EGC SafetyNET messages of all service types are broadcast in all ocean regions per day, including repeated messages, of which:

AOR-E: 120 – 150 messages per day;
AOR-W: 60 – 105 messages per day;
IOR: 190 – 370 messages per day; and
POR: 130 – 230 messages per day

Also noted and discussed in detail was the vast difference in the percentage of messages that were sent as Coastal Warnings across each Ocean Region. In the Ocean Regions of AOR-E and AOR-W, only 0% and 0.7% respectively of the messages promulgated were Coastal Warning messages. This was in sharp contrast to the POR and IOR Ocean Regions where 23% and 55.1% of the messages promulgated were Coastal Warning messages. In this discussion it was noted that it was very important to know that although a vessel will automatically receive SafetyNET messages while in a designated area, this is not true with Coastal Warnings if the terminal is not configured and programmed properly to receive these.

The Inmarsat representative then informed everyone that a user can configure an Inmarsat terminal to receive EGC messages from for one additional NAVAREA/METAREA, but on older models its number can not be larger than 16, and up to 5 additional fixed areas at any one time. On newer models the user can select any NAVAREA/METAREA number between 1 to 99 but it is estimated that a larger number of users still have older models. With the new Arctic NAVAREAs not anticipated to being approved and becoming operational for a number of years there is still time for more users to purchase new models that will support receipt of message traffic in NAVAREAs whose numbers exceed 16 and as a workaround or as a temporary solution an user can always set up a fixed position to receive and monitor the EGC SafetyNET traffic. The IMSO representative confirmed that older terminals that are no longer maintained by the manufacturer, as long as they remain operational they will meet the GMDSS carriage requirements and there is no need for a user to purchase a new one. The IMSO representative noted that the Commission may want to raise the awareness of this issue by generating a COMSAR or MSC Circular to go out to all administrations with a recommendation to flag states whose vessels are entering these areas that they need to be equipped with an Inmarsat-C terminal that can monitor traffic in these areas. The Chairman

asked that Inmarsat attempt to provide a more definitive number of users who still have older models of these transceivers.

The Inmarsat representative asked that if any NAVAREA Coordinator experiences any problems with regards to delays, lost messages, system outages, or any other issues with regards to promulgation of MSI messages using the Inmarsat constellation of satellites to please report it directly to them. There may be problems that Inmarsat can assist with and each can e-mail the problem directly to Vladmir_maksimov@inmarsat.com

The NAVAREA X Coordinator brought up the issue of improper use of C codes and that some SAR messages are not using the correct routing codes. The NAVAREA I Coordinator asked if a paper should be submitted to COMSAR so that every state that has a SAR capability would be reminded to use proper coding in their messages. The Chairman stated that this would be included as part of the IHO report to COMSAR.

Discussion then centered on Ship Security Alerting Systems (SSAS) after a question by NAVAREA X as to how the system works with Inmarsat-C. The Inmarsat representative stated that there are dedicated models for this function from Thrane & Thrane and JRC. These units have been engineered to send a security alert to a number of addresses along with simultaneous position information. These units are available on the market today. You can also add this capability to some existing maritime terminals with additional hardware providing a SSAS button and associated software.

The IMSO representative noted that in Annex 7 of the SafetyNET Manual there is recorded the decision of COMSAR that the EGC receiver should be available for reception of maritime safety information 98% of the time and when it is not available, the vessel should continue to monitor EGC SafetyNET broadcast carrying a 2nd receiver. *"The EGC receiver should normally be available for reception of maritime safety information for at least 98% of the time"*. The question was posed by the IMSO representative if the Commission should take a position on whether or not the 98% rule be continued or should we go back to COMSAR with an alternative proposal.

The Secretary of the NAVTEX Coordinating Panel inquired as to what exactly is meant by 98% availability? The IMSO representative responded that a user must have an operational terminal that Chapter 4 requires and that it should be in receive mode and available to receive Maritime Safety Information including shore-to-ship distress alerts 98% of the time. The IMSO representative noted that the largest messages promulgated across all regions are meteorological messages and that long meteorological messages could tie up the terminal for 45 minutes at one time and cause a delay in receiving the other messages with lower priority. The WMO representative stated that the organization is aware of this and has been trying to whittle the size down as best they can. In an attempt to shorten the length of these messages, they have provided an approved abbreviations list for the preparation of NAVTEX meteorological services. He also added that if there is now a technical argument concerning system availability it will be of value in also promoting the use of these abbreviations by meteorological Issuing Services as a means to shorten their SafetyNET messages.

The Secretary of the NAVTEX Coordinating Panel noted that in NAVTEX attention is paid to the length of the message as there is only a limited 10 minute time slot for transmission, but this is not true with regards to SafetyNET as there is virtually unlimited time for transmission. Inmarsat stated that if a SafetyNET message is received at the Coast

Earth Station with a distress priority – it will interrupt other SafetyNET messages with lower priority already in the queue to be transmitted. If the terminal is engaged in commercial traffic such as communications with a shipping office, the terminal could be unable to receive EGC SafetyNET messages until the message reception or transmission is finished and the terminal becomes idle.

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The NAVAREA I Coordinator noted that although the IMO is concerned that some type of backup capability is required for Electronic Chart Display and Information Systems (ECDIS), that same concern is not extended to backup capabilities for Inmarsat-C transceivers as there is none required at all. It there was a backup capability required for Inmarsat-C GMDSS transceivers such as a second transceiver, then one of these could be solely dedicated to receive EGC SafetyNET messages 100% of the time. In looking at the size, flexibility, and cost of an Inmarsat MINI-C configuration, which may be a sensible solution to this problem as a secondary transceiver.

The NAVAREA I Coordinator stated that the Commission should consider submitting a position paper and recommendation to COMSAR with regards to a backup capability and what exactly the Inmarsat-C availability should be. The Chairman requested that the Commission table this decision for now and take time to consider the proposal and then make an appropriate recommendation.

3.4.1.3 WMO Actions

The WMO representative thanked Inmarsat for its presentation and expressed the need for the same kind of presentation for the next ETMSS meeting (an additional agenda item will be added by the WMO secretariat in part 2 of the agenda) including information on meteorological data collection (using Code 41 for transmission) and considerations regarding the potential problems related to the length of meteorological messages. It was recalled that the guidelines and abbreviations list prepared for NAVTEX products will be considered for use in the preparation of SafetyNET products by ETMSS during its forthcoming meeting.

In addition to the points raised in 3.3.3, WMO informed the Commission of the "re-launch" of the project regarding transmission of SafetyNET graphical meteorological products for both GMDSS and non-GMDSS. In view of the complexity and the work involved in this topic, a specific project proposal will be discussed at ETMSS II.

3.4.1.4 Caspian Sea, Great Lakes, and Inland Waterways

The Chairman introduced this agenda item and recognized comments in the Self-Assessment Report of the Russian Federation that pertained to the expansion of WWNWS coverage into the Caspian Sea area. The IMSO representative identified that there is a major issue that is evolving with regards to large bodies of water in the world that are not deemed to be "high seas" as defined under the SOLAS convention. He added that the Russian Federation paper appears to be implying that they believe that SOLAS requirements should be extended into this area and they would like to draw other countries into a discussion on this matter. It was noted by the Chairman that the Caspian Sea is surrounded by a number of independent countries and could be defined as international waters and

asked the NAVAREA III Coordinator if any discussions with other countries had been made with regards to MSI dissemination over this area. The NAVAREA III Coordinator stated that they were not aware of any discussions or single entity that has initiated the coordination for dissemination of MSI for these waters.

In looking for a solution to establish an environment to improve the dissemination of MSI for all mariners in the Caspian Sea, discussion centered on whether or not a new NAVAREA should be established over this area or as an alternative way forward to include both the Black and Caspian Seas as possibly a Sub-area of NAVAREA III. The Secretary of the IMO NAVTEX Coordinating Panel noted that there is currently a NAVTEX station established by the Russian Federation on the Caspian Sea that is transmitting on 518 kHz and another established by Iran in the south of the Caspian Sea that is transmitting on both International and National frequencies. It was believed that these two NAVTEX stations cover most of the Caspian Sea area today.

The NAVAREA I Coordinator stated that as the Commission looks to expand WWNWS coverage into the Arctic regions it is evident that these are large bodies of international waters that SOLAS applies to. He noted that this is in contrast to looking at areas such as the Caspian Sea and other large inland waterways that have always been under national responsibilities and not considered international waters. He offered an option to use the same systems and practices as in the WWNWS, but not to refer to it as an expansion of the internationally coordinated global WWNWS but rather in much the same way as NAVTEX has largely unregulated services in some areas of the world, allow countries to participate as a national service using the SafetyNET outside of the international service.

The Chairman suggested that if national coordinators provided information as they should over this area to the NAVAREA III Coordinator to promulgate MSI using SafetyNET then the dissemination issue would be solved, it would prevent the need to establish a new NAVAREA or Sub-Area, and it would not potentially interfere with discussions focused on the expansion of the WWNWS into the Arctic regions. The IMSO representative concurred that there was no possibility to reach political and technical answers in the same time frame for these inland bodies of water as the Commission could for the Arctic regions and we don't want to delay the process. Concerns were noted by some delegates that unwanted message traffic may be received by vessels in the Mediterranean and the Caspian Sea if this approach was accepted as all of NAVAREA III messages would then go to all vessels in either area. The Chairman questioned the volume of message traffic in the area and wondered if it would really be a burden to vessels.

The Chairman then suggested that if it is the responsibility of the IMO to define these areas, then the Commission should request them to do so. The IMSO representative noted that they could arrange a meeting and draft a proposal for IMO to ask how these areas of the world should be handled, identify a new "inland sea area" definition, let the IMO address the issue in appropriate forums, and allow for all interested countries to approve and allow the SafetyNET Panel to control those national services to protect the integrity of the SafetyNET Service. The Chairman agreed with the IMSO recommendation to begin discussions and submit a paper to IMO and move forward from there and asked the IMSO to lead this effort.

3.4.1.5 The Way Forward

The Chairman introduced this agenda item noting that any recommendations that this Commission makes have to be coordinated with other international organizational meetings such as the IMO and WMO. In order to assess, decide, and implement changes in a cooperative approach with these supporting organizations, the Commission needs to establish a timeline framework with milestone goals for submission and approval. He then invited the NAVAREA I Coordinator to address this issue.

The NAVAREA I Coordinator concurred with the Chairman and noted that it is always good to set a target date in order to have impetus to meet that target date. He stated that it was a good idea for the expansion of the WWNWS into the Arctic Ocean regions, allowing all interested organizations to have input and to have a firm target date in mind for approval.

The Chairman noted that he would like discussions to begin at COMSAR 11 in February of 2007 as there should be representatives from Norway, Canada, and the Russian Federation present. During COMSAR, the Joint IMO/IHO/WMO Arctic Expansion CG will meet separately and it would be helpful at that time to have representation there so that the group can continue to move forward. The NAVAREA I Coordinator recommended that it might be beneficial if there was a clear indication of where the problems are and identify the issues that remain with regards to establishing the new Arctic NAVAREAs. From there, the Joint IMO/IHO/WMO Arctic Expansion CG can focus on these issues to provide a firm proposal to be presented at the next CPRNW in September 2007 so that a paper can be presented at COMSAR 12 in February 2008 and then brought to the MSC in May 2008. From there it will take approximately a further1.5 years to be fully adopted.

The Chairman requested that Canada, Norway, Russian Federation and WMO discuss issues related to the expansion of the WWNWS into the Arctic and either submit a paper to COMSAR 11 or be prepared to discuss their positions, preferably agreed, during COMSAR. It was recommended that the papers whether they are officially submitted to COMSAR or not should address and provide responses to each of the questions in the Terms of Reference for the Joint IMO/IHO/WMO Arctic Expansion CG. The Chairman noted the Russian Federation and Norway have already done so, and he would request the same of Canada. The WMO representative noted that at the ETMSS meeting in January there will be an opportunity to discuss this further and suggested a possible joint WMO/IHO proposal to shorten the approval process.

3.5 Emerging Technologies

3.5.1 E-Navigation

The Chairman invited the IHB to give a brief synopsis on the e-Navigation concept. The IHB representative stated that this is based on a proposal by the United Kingdom and other countries that the IMO needs a strategy for E-Navigation noting that there are many different types of electronic navigation systems being developed and there should be coordination and oversight into these. The IMO MSC agreed to put it as a work program item under the Sub-Committee on Safety of Navigation which gave the matter some preliminary discussion and established a CG, led by the United Kingdom, which is tasked to prepare a draft strategy for e-navigation and report back to the next NAV meeting in July 2007. NAV will report back to MSC in 2008. In addition to this, the International

Association of Lighthouse Authorities (IALA) has set up an e-navigation committee to look at IALA view points on this. The IHO has asked the Committee on Hydrographic Requirements for Information Systems (CHRIS) to consider E-navigation on behalf of the IHO. CHRIS is due to meet in October and the reports will be put on the IHO web site

The Chairman stated that the Commission needs to be concerned with this new initiative as it involves MSI and IALA ANIS where an aid to navigation will automatically send out a message to the ship. The issue is to ensure that the NAVAREA Coordinator receives this information so it can be sent out to all SOLAS class vessels. In addition to this, the transmit range of some of these aids is limited and vessels may want notification of changes to these aids in advance.

The NAVAREA I Coordinator noted that this initiative is building on the concept of marine electronic highways such as the test case in the Malacca straits and other areas of the world. As we move forward with technological change and as new requirements come in with ship security alerting and long range identification and tracking, it is perceived that we need an overall vision of what the end goal is going to be in the future and then all move together towards that vision which is probably some 20 years out. That vision has yet to be agreed upon but at least we can all agree that we need a shared vision and this would be the first meeting on this. The Chairman reminded everyone that planning milestones are essential for administrations and with regards to establishing a marine electronic highway worldwide it must be kept in mind that it may not be fully developed in all areas of the world. The IHB representative noted that this is a demonstration project only in the Malacca Strait area with current World Bank funding just for that.

The Chairman noted that a working definition for e-navigation was developed at IALA strategy meeting in Feb 2006. The representative from Norway provided the following text from that meeting:

> *E-navigation is the collection, integration and display of maritime information onboard and ashore by electronic means to enhance berth-to-berth navigation and related services, safety and security at sea and protection of the marine environment.*

The proposal to IMO work program on e-navigation defines seven key components of a safe and comprehensive e-navigation policy. Shortly described these are:

- Electronic charts and weather information
- Electronic positioning signals
- Electronic information on vessel route, course, manoeuvring etc.
- Transmission of positional and navigational information
- Display of information
- Information reporting, prioritisation and alert capability
- Transmission of distress alerts and maritime safety information

Most of the components are relevant both onboard and onshore. When discussing a holistic approach to E-navigation it is important to consider what type of information is needed to ensure safe navigation and security, and how to provide, transmit and display this information. Less focus should therefore be paid on which systems that are currently available. In addition to the technical systems, the human element is an important part of navigation. The trend towards more e-navigation would definitely change daily operations

and the way of working for the navigators. This element is not considered explicitly in this short study, which concentrates on the *E*-part of navigation and not the navigator's skills.

The Chairman noted a conversation with the NAVAREA VI Coordinator with regards to the possibility of Inmarsat hosting a web-based service to post messages that customers could pull from. The IMSO representative informed everyone that this model is not beyond the conception stage yet and there is potential in the future to establish a global MSI database to which all NAVAREA Coordinators would contribute and then allow any satellite service provider to pull data from to promulgate messages to their customers. This concept would even allow access to the general public and truly separates content from delivery. The idea originated from potential satellite service providers with different constellations, system characteristics, and coverage areas to satisfy customer demand and provide a way forward. In addition, single data packets with this information embedded could be read by electronic chart systems or printed out as text could all be incorporated and the concept of designing a futuristic vessel that pulls information from a large database may become a reality.

The Chairman noted that at previous COMSAR meetings, at least one country submits a paper on web-based MSI and most acknowledge that websites are not real time, are not updated on a frequent basis, and can have system outages for periods of time. With that in mind, he reminded NAVAREA Coordinators that just because they post messages on a website they can not relieve themselves from the legacy and heritage SafetyNET service as there are SOLAS ships that rely on this service as the only means to receive this information. In addition, currently the receipt of MSI broadcasts are cost free to the mariner and with a pull system they will have to pay for airtime. As a coordinated global service we are not ready to implement this both from a provider and customer view point. The NAVAREA I Coordinator observed that if the world was to ever get to a database system with systems onboard ships that have the capability to automatically receive messages onboard ship, these messages would all have to have a consistent and correct format. The IMSO representative noted that every hydrographic service will be generating data and information supporting this concept in the future and we will all have to look at how to manage this data and establish international standards.

The NAVAREA X Coordinator questioned whether or not it was the responsibility of the NAVAREA Coordinator to promulgate a message if access to web-based MSI is disrupted for any reason. The Chairman noted that although web-based MSI is an optional service and not a core base service, the United States as NAVAREA IV and XII Coordinator does promulgate messages notifying mariners if the maritime safety information website is not operational. Included below at his request is the format of three sample messages that are promulgated by the United States:

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***/06(GEN). MARITIME SAFETY INFORMATION DIVISION WEBSITE.
1. NGA MARITIME SAFETY INFORMATION DIVISION WEBSITE UNUSABLE
   122300Z TO 132300Z NOV. FOR URGENT SERVICE, CONTACT
   NGA NAVSAFETY, DSN: 287 3147, COMM: 1 800 362 6289 OR
   301 227 3147, E-MAIL: NAVSAFETY@NGA.MIL OR MSG TO
   NGA NAVSAFETY BETHESDA MD.
2.   CANCEL THIS MSG 140001Z NOV.//

***/06(GEN). MARITIME SAFETY INFORMATION DIVISION WEBSITE.
NGA MARITIME SAFETY INFORMATION DIVISION WEBSITE UNUSABLE.
FOR URGENT SERVICE, CONTACT NGA NAVSAFETY, DSN: 287 3147,
COMM: 1 800 362 6289 OR 301 227 3179, E-MAIL: NAVSAFETY@NGA.MIL OR
MSG TO NGA NAVSAFETY BETHESDA MD.//
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***/06(GEN). MARITIME SAFETY INFORMATION DIVISION WEBSITE.
DUE TO TECHNICAL DIFFICULTIES, USERS MAY EXPERICENCE PROBLEMS IN
ACCESSING THE NGA MARITIME SAFETY INFORMAITON DIVISION WEBSITE. FOR
URGENT SERVICE CONTACT NGA NAVSAFETY DSN: 287 3147,
COMM: 1 800 362 6289 OR 301 227 3147, E-MAIL: NAVSAFETY@NGA.MIL OR
MSG TO NGA NAVSAFETY BETHESDA MD.//
```

WMO representative reiterated the offer of JCOMM, through ETMSS, to cooperate with IHO and IMO, with a view to coordinating the use of the common URL *gmdss.org* for the provision of MSI via the Web (see also WMO website presentation in § 6.2).

The Chairman noted that the Commission will need to continue to monitor MSI web-based issues. The NAVAREA I Coordinator noted that web-based systems are not an integrated part of GMDSS and that if a country is providing web-based MSI it would be useful to the customer to also provide information as to how current the data is and how often it is updated and there should be an indication that it is not fully up-to-date. The Chairman concurred and stated that a standard disclaimer note on websites should be implemented.

3.5.2 IMO Resolution A.888 "Potential Presentations by Other Service Providers"

The Chairman introduced this agenda item by again mentioning potential changes that could arise with additional satellite service providers under GMDSS. He then stated that no other satellite service providers were invited to attend this meeting and provide a presentation as it was premature due to the ongoing Res. A.888 discussions. He then invited the IMSO representative to update the delegation on any remaining issues that had not already been discussed with regards to this item.

The IMSO representative noted that Res. A.888 is the IMO established criteria for any satellite service provider to enter the GMDSS market. At the moment it consists of text which favors Inmarsat totally as it was originally written specifically for them alone. But now the IMO has taken the philosophical decision to open GMDSS to other providers. With this, the resolution needed to be changed and a CG was established. In looking at the actual text, the document refers to geo-stationary satellites which are unique items to Inmarsat and requirements that could not be met by orbiting satellites as they are moving in relationship to the earth. So in the review, the CG understood that the changes had to be generic and began to look behind the original words and understand what the operational requirement was and how a change could be drafted to the specification that was generic enough for all satellite providers.

After consultation with this Commission, the IMO SafetyNET Panel Chairman, and the IMO NAVTEX Panel Chairman, it was clear that the fundamental requirements of the navigation safety community have not changed since the original concept. And it is believed that the technical annex of the present draft has captured these requirements very well. It is believed that at the next MSC meeting Istanbul in December 2006 agreement will be reached to this revised text.

4 REVIEW OF GUIDANCE DOCUMENTS

The Chairman noted that the next planned meeting of the document review CG will be after COMSAR 11 either at the United Kingdom Hydrographic Office or at IMO facilities and asked the IHB representative to coordinate the scheduling for this event. The IMSO representative then suggested that to manage the difficult process for enacting change to these guidance documents that the Commission look at the approval sequence required for changing these documents and establish a time schedule with major milestones against each document noting significant events and final submission.

The Chairman then stated that the process for document review at this meeting will be to review and discuss specific items where there is still some ambiguity remaining on the proposed draft changes. He noted that this meeting is a great opportunity to get input and expert insight on these issues from all Commission members present. He also stated that everyone still has the opportunity to comment on these as nothing will be submitted to COMSAR in 2007 and there will probably be a final draft version of these documents submitted for Commission approval at the next CPRNW meeting.

4.1 Document Review Update and Status Report

The Chairman invited the Secretary of the NAVTEX Coordinating Panel to give some background on the document review progress to date. The Secretary noted that the CG first met after COMSAR in February of 2006 and created draft working documents for Resolution A.705(17) and A.706(17) that were sent out which resulted in a significant amount of comments back. These comments have all been consolidated into a table and that has led to a 2nd draft of the documents which were distributed to all the delegates at this meeting.

The intent was to review the CG comments with a goal of having a 2nd draft of these documents completed by 01 January 2007. Another CG meeting is being scheduled after COMSAR in February 2007 for creation of a final version for review and approval at the 9th meeting of the CPRNW in September 2007 for submission to the IMO. In order to allow time to create a 2nd draft version of these documents by 01 January 2007, it was requested that any further proposed changes to these documents be made to CDR Tim Sewell tim.sewell@ukho.gov.uk no later than 01 November 2006.

The NAVAREA X Coordinator suggested tracking changes to documents by using a different color for the text modified. The Secretary noted that he would try and incorporate this suggestion. A consolidated A.705 and A.706 Outstanding Issues handout was then passed to all delegates for review.

4.2 IMO Res. A.705 (17)

The Secretary of the IMO NAVTEX Coordinating panel presented the current listing of all recommended changes to Resolution A.705(17). Each proposed change was discussed and either accepted, modified, or changed with final concurrence achieved for each specific item. There was significant discussion as to what should be included in the definition of "Other Safety Related Information" and whether or not a separate entry should be inserted for "Security" related information. The Commission agreed to group all types of "Other Safety Related Information" such as piracy, tsunami, health, safety, or security under this one

definition and specifically identify these different message types as best as possible in the documents as IMO has requested. It was also decided that definitions should be placed in an alphabetical listing for easier reference.

4.3 IMO Res. A.706 (17)

The Secretary of the IMO NAVTEX Coordinating panel presented the current listing of all recommended changes to Resolution A.706(17). Each proposed change was discussed and either accepted, modified, or changed with final concurrence achieved for each specific item. It is to be noted that all changes made to Resolution A.705 will carry over to A.706 in order to have all definitions and graphics be consistent.

4.4 Terms of Reference for the CPRNW (IHO Circular Letter 112/2005, 11 November 2005)

This document was not discussed and it was agreed to that that any revisions to this document as a result of the document review CG would be reviewed at the next CPRNW meeting.

4.5 International SafetyNET Manual 2003 Ed

This document was not discussed and it was agreed to that that any revisions to this document as a result of the document review CG would be reviewed at the next CPRNW meeting.

4.6 Joint IMO/IHO/WMO Manual on MSI 2003 Ed.

This document was not discussed and it was agreed to that that any revisions to this document as a result of the document review CG would be reviewed at the next CPRNW meeting.

4.7 Joint IMO/IHO/WMO Manual on MSI S-53 App 1

This document was not discussed and it was agreed to that that any revisions to this document as a result of the document review CG would be reviewed at the next CPRNW meeting.

4.8 IMO Res. A.664 (16)

This document was not discussed and it was agreed to that that any revisions to this document as a result of the document review CG would be reviewed at the next CPRNW meeting.

4.9 NAVTEX Manual 2006 Ed.

This document was not discussed and it was agreed to that that any revisions to this document as a result of the document review CG would be reviewed at the next CPRNW meeting.

4.10 Implementation of the GMDSS (IHO Circular Letter 31/2000, 12 July 2000)

This document was not discussed and it was agreed to that that any revisions to this document as a result of the document review CG would be reviewed at the next CPRNW meeting.

5 CPRNW REPRESENTATION AT REGIONAL HYDROGRAPHIC COMMISSIONS AND OTHER CONFERENCES

5.1 Update on CPRNW Member Attendance to RHCs

The Chairman reminded all delegates that this item was included as part of the Self-Assessment template and encouraged that in the future for each NAVAREA Coordinator to include and indicate to what extent they participated in Regional Hydrographic Commissions in their area of responsibility. The Chairman then cited a reference that indicated that this is a responsibility of each NAVAREA Coordinator as per the CPRNW Terms of Reference paragraph 1.4.

5.2 Capacity Building Training Course Development

The Chairman informed everyone that the IHO has given a high priority to capacity building and it is in the best interests of all member states if each NAVAREA Coordinator can get national authorities within their area of responsibility to start providing and producing maritime safety, hydrographic, and bathymetric information. The Chairman then stated that the CPRNW has been tasked by the IHO to provide training in maritime safety information to areas requesting assistance and invited the Secretary of the IMO NAVTEX Coordinating Panel to speak to his findings as he has been visiting numerous countries within the Caribbean over the past year with regards to this effort.

CDR Tim Sewell (Secretary of the IMO NAVTEX Coordinating Panel) identified that he and Captain Mike Barritt (Vice Chairman of the IHO Capacity Building Committee) have now visited every British Commonwealth territory in the Caribbean. The primary purpose of these visits were to assess and assist each country to achieve Phase 1, the collection and circulation of nautical information necessary to maintain and update existing charts and publications.

The Meso-American Caribbean Hydrographic Commission (MACHC) meeting that will be held in Acapulco, Mexico in October of 2006 will provide a venue to finalize the training curriculum. The goal is to establish a model course along with lesson plans and practical exercises by region that will enable all NAVAREA Coordinators to provide this training in their respective regions and to ensure consistency in training approach. The first training course will be held within NAVAREA IV in March 20-22 2007 in Jamaica with another course planned later in the year within the NAVAREA VII region. The IHO has offered assistance to this capacity building initiative by providing funding to cover training materials and travel costs for those participants who wish to attend this training.

The Chairman noted that it was important that NAVAREA Coordinators attend RHCs that are held within their respective areas. A standing agenda item at these RHC meetings is maritime safety information and any capacity building training that will be required for the region will come at the request of the RHC. The Chairman stressed the fact that there is no

intention to direct NAVAREA Coordinators or impose a requirement on them to provide training to other countries within their region if it is not requested. The representative from the IHB confirmed that capacity building is requested from the RHC and that they will decide what capacity building is required along with coordinating the logistical aspects.

The Chairman suggested to each NAVAREA Coordinator that if they are requested to provide training that they try and do it in conjunction with a RHC conference and participate in the meetings and then conduct the training the following week. A concern was raised by NAVAREA X that countries need advance notice of requested training to budget resources in order for them to support. The IHB noted that the Capacity Building Committee has already built their program for 2007 and have put together a five year plan that will be presented at the IHC in May 2007.

6 OTHER BUSINESS

6.1 Update on WWNWS CD-ROM

The Chairman introduced the 2006 version of the "WWNWS CD-ROM". The Chairman stated that this concept was first suggested at the 6th CPRNW meeting in 2003 as there were varying degrees of documents that were important for everyone to have and they were available via various means and in various places. The Chairman volunteered to create a CD-ROM that captured these significant documents and information that each NAVAREA Coordinator should have and enable everyone to work from a common platform. Each delegate was then provided with a copy of the 2nd Edition (2006) of the WWNWS CD-ROM.

The Chairman then presented the contents of the CD-ROM highlighting the new information that has been included in the 2006 version. The IMSO made a suggestion to add the minutes from all historical CPRNW meetings and the Chairman agreed that he would search his files and include them if found. The IMSO then also suggested that a link to Inmarsat website be added. WMO requested also the addition of the JCOMM GMDSS website.

The Chairman finally requested that everyone review the content of the CD-ROM as it is a standing agenda item of the CPRNW for delegates to provide any updates, comments, and additional information that they would like to see included. He identified that this CD-ROM would be continued to be updated on an annual basis and a new edition will be distributed at the next CPRNW meeting.

6.2 WMO Website Presentation

The representative from the WMO provided a live interactive presentation of the JCOMM real-time GMDSS website which can be accessed at http://weather.gmdss.org He noted that it was decided to establish this website and provide web-based access to meteorological information after findings from a customer survey. The website which has been operational since 2004 provides a separate page for each METAREA, direct access to current SafetyNET scheduled forecasts & warnings, and links to the websites of individual meteorological issuing services. This site is optimized for use onboard ships, offering the possibility of consulting pages containing only textual information because of the bandwidth constraint. An e-mail access to all bulletins available on the website (gathered in packages)

was also developed (http://www.meteo.fr/marine/navimail). Planned improvements for the website include the following:

Planned improvements for the

- Enrich the meteorological information especially within NAVTEX areas
- Provide better links to WMO and JCOMM documentation
- Add cross-links with other relevant websites
- Include a web-based survey form
- Increase collaboration and cooperation with the IHO and IMO
    - Willing to work with any NAVAREA Coordinator to host information

WMO secretariat has registered the web domain named "***gmdss.org***" until January 2011. WMO representative recalled the offer of JCOMM, through ETMSS, to cooperate with IHO and IMO, with a view to coordinating the use of the common URL *gmdss.org* for the provision of both meteorological and navigational warning information in real time via the Web.

The NAVAREA I Coordinator inquired about the possibility of expanding the content of the website to include all NAVTEX weather broadcasts. The WMO representative stated that this would not be a problem and the NAVAREA I Coordinator responded that this might be an excellent tool for monitoring multiple authorities broadcasting the same weather messages. The WMO representative also volunteered to provide an updated presentation with website metrics on it to be included in next edition of the WWNWS CD- ROM and to prepare a detailed paper to be presented in the next CPRNW meeting.

6.3 Potential Change to CPRNW Name

The Chairman noted that the CPRNW has been in existence as a Commission under the IHO since 1977. A new IHO organizational structure that will be discussed and submitted for approval by all member states at the next International Hydrographic Conference in May of 2007 proposes a two committee approach in the organization and under one of the committees the CPRNW would be placed as a sub-committee and not a Commission. The potential new name change for the CPRNW would be the Sub-Committee for Promulgation of Radio Navigational Warnings. The Chairman expressed concern that the change in the name may not appear to mean much, but it changed the stature, recognition, and effect of the Commission in other international bodies and in following proper procedures any decisions made by this sub-committee would in the future have to go to the committee body above us for approval before it would go out to IHO member states.

The IHB representative explained to all delegates that the IHO established a strategic planning work group (SPWG) with representation available to all IHO Member States to look into the reorganization of the IHB. The final meeting of this SPWG was in Korea a few months ago and they had finalized the proposal that will be submitted to the IHC for member states to accept, modify, or deny. Since there was representation on the SPWG from all member states, the preliminary feeling is that this new structure will be adopted with an effective date of January 2009. But this proposal has been sent out to all member states and each member state does have the opportunity to submit papers on this. He also added that the Commission can submit a paper on this proposal if desired. A presentation was then made

that showed a graphic depiction of the new organizational structure and where the CPRNW would be placed.

The Chairman noted that there was no consultation at his level with regards to this new organizational structure and that all discussions and decisions took place at the SPWG level. When he became aware of this proposal he did write a letter to one of the IHB Directors stating reasons why he felt that the CPRNW should stay designated as a Commission. The Chairman then asked if the delegates were in a general consensus that a paper should also be submitted to the IHC by the Commission identifying that the CPRNW should stay designated as a Commission. It was then discovered that most delegates were not aware of this proposed new organizational structure of the IHO prior to the meeting and had not had time to think about it.

The representative from the IHB then clarified that under the new organizational structure there are very specific rights and powers identified for a Commission and that they are specifically written and intended for Regional Hydrographic Commissions (RHCs). NAVAREA X then asked that if we are going to re-name this Commission or Sub-Committee can the members of the CPRNW decide what the new name should be and then proposed that the word "Radio" be eliminated from the name. The IHB stated that this is a perfectly valid discussion and that there is no reason why the group couldn't propose a name change to whatever they agree upon. Other delegates expressed approval to remove the name "radio" from the name as proposed by NAVAREA X.

The Chairman then reminded all delegates that the acronym "RNW" has long been recognized as what this Commission represents but we would consider a new name proposal. His concern is not effectiveness of the CPRNW but the close interaction that this organization has with other international bodies, specifically the IMO and WMO. As discussed this week, anything that the CPRNW does has an impact on these other two organizations and this new structure could add to the bureaucracy of it all. The IHB identified that the CPRNW Terms of reference is also part of the proposal.

The Chairman summarized the discussions on this topic stating that there appeared to be general consensus that the CPRNW should stay as a Commission and that he would investigate the opportunity to submit a positional paper to the IHC stating this. He then asked the NAVAREA I Coordinator to generate a draft that could be sent out to all delegates for review and approval prior to official submission. Secondly, he noted that the Terms of Reference for the CPRNW would be added as an agenda item for the meeting next year. The IHB then reminded everyone that any changes to the Rules of Procedure for the CPRNW can be discussed and approved at this level but changes made to the Terms of Reference need to submitted for approval by member states.

Another item discussed concerned a question raised about adding a ToR paragraph regarding the "individual expertise" of the NAVAREA Coordinators, and their authority as members of the CPRNW to make decisions in regards to the work of the Commission. Reference was made to a similar paragraph in the TOR of the Advisory Board on the Law of the Sea which states: *"Whilst members of ABLOS are appointed by their parent Organizations, to whom they are accountable, members are expected to serve as individual experts in their own right. No statements or publications may be issued in the name of ABLOS without ABLOS's prior approval"*.

After much discussion, Commission members inquired whether adding a similar paragraph to the CPRNW TOR would be suitable and necessary. The Chairman agreed to investigate further after the meetings conclusion.

After consultation with the IHB, which provided further advice on the Commissions authority and background on the reasoning for why this paragraph is included in the ABLOS ToR, explaining that the CPRNW is a commission of the IHO with rules and procedures as the other Committees of the IHO and ABLOS being a board composed of three International Organizations, the Chairman recommend that at this time, the Commission should not endorse including a paragraph to the ToR regarding "individual expertise" of the Commission members. The Chairman will add this discussion to the CPRNW 9 meeting to ensure all members fully agree.

6.4 Next Years Meeting

The Chairman noted that as per the new Terms of Reference the meetings of the CPRNW will be held in even years at a NAVAREA Coordinator home country and in odd years at the IHB in Monaco. As this was the first meeting of the CPRNW to be held outside of Monaco and looking at the attendance, participation, and success of this meeting it is evident that this was a fantastic testament to the concept of the rotation of meeting to other parts of the world. The Chairman also noted that the Terms of Reference also state that the next meeting will be decided at current meeting and with that, announced that the 9th meeting of the CPRNW will be held at the IHB in Monaco from 11-14 September 2007. He encouraged all delegates to attend and asked that for those planning to attend, to please make travel arrangements to depart on Saturday 15 September 2007 as he anticipates a full agenda with discussions concluding late on the last day. The Chairman identified that a preliminary invitation to attend the 9th meeting will be sent out in January of 2007 once all details and arrangements have coordinated

For the 10th meeting which will be held in 2008, the Chairman recognized that NAVAREA V (Brazil) has been approached to consider hosting the meeting. In addition, he asked that if there were any other NAVAREA Coordinators who would like to host the 10th meeting to please let him know. The IHB emphasized that the requirements for a member state to host this meeting were simply to provide for a meeting facility and that there was no requirement to try and match the fantastic job that Argentina had done.

The Chairman then recognized the efforts of CDR Tim Sewell of the UKHO who was attending his last CPRNW meeting in the capacity as the Secretary of the IMO NAVTEX Coordinating Panel. On behalf of the IHO and the Commission, he thanked him for his dedication, contribution, and outstanding support to the CPRNW and all member states over the past several years.

7 CLOSURE OF THE MEETING

7.1 Final Report

The Chairman stated that he would prepare a draft summary report of the meeting and provide it to the attendees for their review and comment in due course. If the comments on the draft meeting minutes were substantive in nature, he would then provide another draft

for review. If editorial edits only, he would prepare the final summary report and provide it to all CPRNW members and Observers as a COMM Letter.

7.2 Closure

In closing the meeting, the Chairman asked for final comments from each delegate and expressed his gratitude to all the participants for their considerable efforts in the implementation of the WWNWS and GMDSS and for their very active and valuable contributions to the meeting. Their inputs over the past few days resulted in the sharing of useful information and future refinements to the system and appropriate documentation. He again thanked Argentina for its excellent support and hospitality during the meeting. The NAVAREA VI Coordinator stated that it was an honor for Argentina to host their 1st IHO meeting and hoped that this had had been a great experience for everyone.

The 8th meeting of the CPRNW closed at 1700 on Friday, 15 September 2006.

ANNEX A

IHO Commission on Promulgation of Radio Navigational Warnings
Eighth Meeting
Agenda item 1.5

AGENDA FOR THE EIGHTH MEETING

To be held at Regente Palace Hotel, Suipacha 964, Buenos Aires, Argentina, commencing on Tuesday, 12 Sep 2006 at 0930

1 OPENING REMARKS AND ADMINISTRATIVE ARRANGEMENTS

.1 Opening Remarks and Introductions

.2 Welcome by Argentina Hydrographic Office

.3 Working Arrangements

.4 Administrative Arrangements

.5 Adoption of the Agenda

6 Review of Action Items from 7th CPRNW Meeting

2 MATTERS RELATING TO THE GMDSS MASTER PLAN

.1 IMO Resolution A.705 Document Update

3 PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)

.1 Results from the 10th Session of the International Maritime Organization's Sub-Committee on Communications and Search and Rescue

- .1 Joint IMO/IHO/WMO Correspondence Group on Arctic MSI Services
- .2 Tsunami Update
- .3 Amendments to IMO Resolution A.888 - Other Satellite Service Providers
- .4 Long Range Identification and Tracking (LRIT)

.2 NAVAREA Assessments of Navigational Warnings Services by Coordinators

- .1 Individual Assessments

.3 Broadcast Systems and Services

- .1 Report of the IMO NAVTEX Coordinating Panel
- .2 Report of the IMO SafetyNET Coordinating Panel
- .3 WMO Liaison Report

.4 Operational Lessons Learned for Consideration as Improvements to the WWNWS

- .1 MSI Outside Limits of WWNWS

.1 Joint IMO/IHO/WMO Correspondence Group on MSI Arctic Services Update
.2 Inmarsat-C EGC SafetyNET Report
.3 WMO Actions
.4 Caspian Sea, Great Lakes and Inland Waterways
.5 The Way Forward

.5 Emerging Technologies

.1 E-Navigation
.2 IMO resolution A.888 "Potential Presentations by Other Service Providers"

4 REVIEW OF GUIDANCE DOCUMENTS

.1 Document Review Update and Status Report

.2 IMO Res. A.705(17)

.3 IMO Res. A.706(17)

.4 Terms of Reference for the CPRNW (IHO Circular Letter 112/2005, 11 November 2005)

.5 International SafetyNET Manual 2003 Ed.

.6 Joint IMO/IHO/WMO Manual on MSI 2003 Ed.

.7 Joint IMO/IHO/WMO Manual on MSI S-53 App 1

.8 IMO Res. A.664(16)

.9 NAVTEX Manual 2006 Ed.

.10 Implementation of the GMDSS (IHO Circular Letter 31/2000, 12 July 2000)

5 CPRNW REPRESENTATION AT REGIONAL HYDROGRAPHIC COMMISSIONS AND OTHER CONFERENCES

.1 Update on CPRNW Member Attendance to RHCs

.2 Capacity Building Training Course Development

6 OTHER BUSINESS

.1 Update on WWNWS CD-ROM
.2 WMO Website Presentation

.3 Potential Change to CPRNW Name

.4 Next Years Meeting

7 CLOSURE OF THE MEETING

.1 Final Report

.2 Closure

ANNEX B

IHO Commission on Promulgation of Radio Navigational Warnings
Eighth Meeting
Agenda item 1.1

LIST OF PARTICIPANTS

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ANNEX C
IHO Commission on Promulgation of Radio Navigational Warnings
Eighth Meeting
Agenda item 1.5

CPRNW8-1-5
12 Sep 2006

LIST OF PAPERS

CPRNW8	General Information
CPRNW8-1-5	List of Papers
CPRNW8-1-5	Agenda
CPRNW8-3-1-1	TOR Arctic Correspondence Group
CPRNW8-3-2-Navarea I	MSI Self Assessment – NAVAREA I
CPRNW8-3-2-Navarea I-BSSA	MSI Self Assessment Baltic Sea Sub-Area
CPRNW8-3-2-Navarea II	MSI Self Assessment – NAVAREA II
CPRNW8-3-2-Navarea III	MSI Self Assessment for Navarea III
CPRNW8-3-2-Navarea IV & XII	MSI Self Assessment – NAVAREA IV and XII
CPRNW8-3-2-Navarea VI	MSI Self Assessment – NAVAREA VI
CPRNW8-3-2-Navarea VII	MSI Self Assessment – NAVAREA VII
CPRNW8-3-2-Navarea VIII	MSI Self Assessment – NAVAREA VIII
CPRNW8-3-2-Navarea IX	MSI Self Assessment – NAVAREA IX
CPRNW8-3-2-Navarea X	MSI Self Assessment – NAVAREA X
CPRNW8-3-2-Navarea XI	MSI Self Assessment – NAVAREA XI
CPRNW8-3-2-Navarea XIII	MSI Self Assessment – NAVAREA XIII
CPRNW8-3-2-Equador	MSI Self Assessment – Equador
CPRNW8-3-3-3-1	Navtex Co-ordinating Panel Report
CPRNW8-3-4-1	Inmarsat Paper
CPRNW8-3-4-1-3	Inmarsat C EGC SafetyNET Report
CPRNW8-4-4	CPRNW ToR (IHB CL112/2005)
CPRNW8-4-5 Inmarsat clean copy	Inmarsat proposals for SafetyNET Manual
CPRNW8-4-5 Inmarsat Mark-up	Inmarsat proposals for SafetyNET Manual

ANNEX D

IHO Commission on Promulgation of Radio Navigational Warnings
Eighth Meeting
Agenda item 1.6

LIST OF CPRNW ACTION ITEMS

(Status as of 15 September 2006)

Agenda Item	Subject	Status	Comments	Action By
CPRNW7 3.4.1.1	CPRNW Paper to COMSAR 10 identifying Arctic Expansion of NAVAREAs	CANCELLED	COMSAR 10 may be too aggressive considering deadline of Dec 6, 2005. Inmarsat will assist in identifying Service Areas.	Chairman
CPRNW7 3.2	Chairman to provide a Self-Assessment template	COMPLETED	Members to provide input and have a 2nd review prior to approval	Chairman
CPRNW7 4.2	Feedback and input on the "WWNWS CD-ROM"	ONGOING	New CD issued during CPRNW8 Feedback still wanted. Please provide feedback by 1Nov 2006. Next Edition will produced in Jan 2007	All Members
CPRNW7 3.1	IMO to demonstrate Inmarsat capabilities. Inmarsat to assist.	COMPLETED	Idea is to present Inmarsat Capabilities to a WMO/IOC audience – IMO COMSAR recognized as a preferred venue. Demonstration provided at Inmarsat Headquarters	IMO / Inmarsat / IHO
CPRNW7 5	Chairman requests each member provide an estimated cost of attending a CPRNW meeting. Chairman to send email to all attending CPRNW8.	ONGOING	Requested to support IHB study on cost of operations. Only travel, lodging and food required - not necessary to add salary. **Provide by 16 October 2006.**	Chairman, All Members
CPRNW7 3.2	Customer hits against web-based NAVAREA warnings. Each NAVAREA that has web-based MSI to capture.	ONGOING	This will be added to the self assessment template	All Members
CPRNW7 4.2	IMSO to draft text for contingency planning for inclusion into the Chairman's "WWNWS Presentation CD-ROM".	ONGOING	Business continuity plans. For submission to CPRNW9	IMSO
CPRNW7 3.3.1	NAVTEX Coordinating Panel report on dual language transmission of WWNWS messages	COMPLETED	English only? For 2006 CPRNW Meeting Addressed in Agenda Item ??	Chairman IMO NAVTEX Panel

CPRNW7 3.5	SafetyNET and NAVTEX Coordinating Panel will create CG to review all guidance documents. First meeting will convene after COMSAR 10. NAVAREA I asked to host	ONGOING	NAVAREA I to confirm dates/location and provide feedback back to Chairman ASAP. Meeting held at IMO Headquarters after COMSAR10 in February 2006.	CG on the WWNWS documentation.
CPRNW7 3.4.4	Inmarsat to provide clarification on reception of EGC SafetyNET Coastal Warnings related to NAV/METAREA set up as a secondary area and other operational issues raised at the meeting.	COMPLETED	Clarification on messages being received by two NAVAREAs and the ability to receive Addressed in Agenda Item - Yes it is possible.	Inmarsat
CPRNW7 3.4.4	Inmarsat to provide a separate paper on the EGC SafetyNET status and presentation at the next meting	COMPLETED	CPRNW8 Agenda Item ??	Inmarsat
CPRNW7 3.5	Inmarsat to provide the Chairman with draft changes to IMO SafetyNET Manual	COMPLETED	As part of the review of all MSI documentation. Submitted and now part of WWNWS documentation review.	Inmarsat
CPRNW7 3.4.4	Inmarsat to provide IMSO (IHO/WMO) with proposed boundaries of existing NAV/METAREAs for approval and software changes	ONGOING	Boundaries are not ready to be firmly established yet. IMSO reminds that all amendments should be made at same time. Australia wonders why coordinates of Navarea not under user control.	Inmarsat
CPRNW7 3.4.4	Inmarsat to provide analysis on MSI traffic volume loading in IOR and POR and advise if there is a need to shift some EGC SafetyNET traffic to off-peak hours to avoid delays in MSI delivery	COMPLETED	Inmarsat reported that study was performed and that at the current time - there is not a problem.	Inmarsat
CPRNW7 3.4.2.2	NAVAREA opinion and concerns on promulgation of WHO messages	ONGOING	Input required by all Members Feb 1 2006 Nothing received as of CPRNW8.	All Members
CPRNW7 3.4.2.2	IMSO representative to contact the WHO concerning Health Advisories	ONGOING	Who is the WHO contact replacement for Sandy Cocksridge?	IMSO
CPRNW7 3.4.2	The IMSO raised question to IMO as to whether or not the ships in the Caspian Sea were being held to the SOLAS agreements for carriage requirements.	ONGOING	Need IMO opinion SOLAS almost certainly does not apply to ships in the Caspian but might be being used.	IMO
CPRNW7 3.4.5	Invite for satellite service providers to present at CPRNW.	CANCELLED	Referring to IMO RES 888. Questionnaire sent out, replies received from Inmarsat and Iridium. This has been postponed as it is considered premature at the moment.	Chairman and IMSO

CPRNW75	NAVAREA III to present findings at next CPRNW with regards to NAVTEX stations in the Mediterranean	COMPLETED	Service Area and station relocation concerns. Addressed as CPRNW8 Agenda Item? New action assigned from CPRNW8	NAVAREA III
CPRNW82.1	IHB to contact IMO regarding the way forward for amending A.705(17) & A.706(17)	ASAP Email sent 13/9/06	Post meeting note: IMO have confirmed that the proposed amendments to the ARs can be submitted directly to COMSAR under the standing agenda item on the GMDSS. Whether or not these would have to remain as Assembly Resolutions or could become MSC Resolutions would depend on the scope of the amendment and this can be discussed with IMO once the draft amended resolutions are available for submission.	IHB
CPRNW83.1.1	Chairman and WMO to confirm METAREA contacts for Arctic waters	Jan 07		Chairman, WMO
CPRNW83.1.1	Discuss with Russian Federation the boundary issues between Navarea XII and XIII and further North.	Dec 06		Chairman
CPRNW83.1.1	Information required regarding reception of MSI in high latitudes.	Feb 07	Norway to investigate and provide information regarding the highest latitudes regularly used by surface ships and the ability to receive MSI. Chairman to seek similar information from Russian Federation	Norway, Russian Federation, Chairman
CPRNW83.1.2	Information required as to the categories of tsunami warning in use in the Pacific	Nov 06	WMO to provide the information to the chairman	WMO
CPRNW83.1.2	Tsunami message template to be prepared as guidance for NAVAREA Coordinators and to be attached to the report of CPRNW. The text of COMSAR.Circ/36 to be attached to the meeting report.	Oct 06	Pre and post templates required	Chairman, WMO and UK
CPRNW83.1.2	WMO to provide contact details for Tsunami information and this then to be included on the WWNWS CD	ASAP		WMO, Chairman
CPRNW83.1.3	All members to brief their national representatives to IMO MSC on the significance of possible changes to A.888 and the CPRNW concerns	Nov 06	IMSO to provide a short text highlighting concerns	IMSO, All CPRNW members

CPRNW8 3.2	NAVAREA I Coordinator is requested to provide information as to the intention of UKHO to provide MSI via the internet	CPRNW9		Navarea I Coordinator
CPRNW8 3.2	All NAVAREAs providing web based MSI to include information as to the number of hits on their web site where this information is available. NAVAREA coordinators should also inform Steve Shipman at the IHB of any changes to the web site addresses.	CPRNW9		All NAVAREA Coordinators
CPRNW8 3.2	CPRNW and IHB to consider a submission to the Tokyo (Asia - Pacific Region), Goa (Indian Ocean Region), Paris (European Region) and other regions' Secretariats which support the Memorandum of Understanding (MOU) on Port State Control to advise MSI deficiencies as reported by Australia	Feb 07	NB Text of action amended following discussion with Australia as to the intent of this action.	IHB, Chairman
CPRNW8 3.2	NAVAREA III Coordinator to investigate the possibility of the Black Sea becoming a sub-area within Navarea III along the lines of the Baltic Sea within NAVAREA I	CPRNW9		Navarea III coordinator
CPRNW8 3.4.1.1	Inmarsat to send a message to all ships in the Arctic requesting that they send a position report in order to make some assessment as to the coverage of Inmarsat in northern latitudes	February 07		Inmarsat
CPRNW8 3.4.1.1	All members to provide comments and feedback to the Chairman regarding the extension of the WWNWS into the Arctic.	URGENT		ALL
CPRNW8 3.4.1.2	The WMO is requested to submit a paper to the next meeting discussing their GMDSS web site including the details of its graphics processing.	CPRNW9		WMO
CPRNW8 3.4.1.3	Inmarsat is requested to provide an information as to the percentage of Inmarsat terminals in use that can only access Navareas 1 – 16 as opposed to 0 - 99	CPRNW9		Inmarsat

CPRNW8 3.4.1.3	IHO report to COMSAR to highlight the problem of incorrect use of SAR codes.	Nov 06		Chairman, IHB
CPRNW8 3.4.1.3	IMSO to report to Inmarsat that CPRNW considered the possible review of the 98% rule in the SafetyNET manual Annex 7 and did not consider this appropriate at this time. IMSO to request Inmarsat to raise a paper either to CPRNW or COMSAR at some point in the future if they felt there was a need for this to be discussed further.	1 Jan 07		IMSO
CPRNW8 3.4.1.4	IMSO to discuss with appropriate experts and the countries concerned the provision of a coordinated service for the delivery of MSI in "Inland waters" such as the Caspian Sea and at some point in the future to present appropriate proposals to IMO, IHO, and WMO.	Ongoing		IMSO
CPRNW8 3.4.1.5	Canada, Norway, Russian Federation and WMO are requested to discuss issues related to the expansion of the WWNWS into the Arctic and either submit a paper to COMSAR 11 or be prepared to discuss their positions, preferably agreed, during COMSAR.	Feb 07		Canada, Norway, Russian Federation, WMO
CPRNW8 3.5.1	Members who provide MSI on the WWW are requested to indicate on their web site the details of the frequency of the updates and an indication that this is only a secondary means of dissemination. Similar information to be included in the annual MSI Self Assessments.	ASAP		ALL
CPRNW8 3.5.1	IHB to distribute by email the text of the disclaimer on the CPRNW web site for consideration by Navarea Coordinators.	1 Oct 06		IHB
CPRNW8 4.2 & 4.3	Review the list of outstanding issues and the drafts of A.705 and A.706 and provide comments by **1 November 2006.** Other comments to be provided by January 2007	Due 1 Nov 06 and January 2007		ALL

CPRNW8 4.4	IHB to circulate a copy of the text as used in the GGC regarding members acting as experts in their own right.	1 Oct 06		IHB
CPRNW8 4.4	Review the TOR for further discussion at the next meeting	Sep 07		ALL
CPRNW8 5.1	Tim Sewell to produce an outline plan for the proposed Capacity Building course on the promulgation of radio navigational warnings for discussion at CPRNW9	CPRNW9		Navarea I

ANNEX E

IHO Commission on Promulgation of Radio Navigational Warnings
Eighth Meeting
Agenda item 3.1

TERMS OF REFERENCE OF THE JOINT IMO/IHO/WMO CORRESPONDENCE GROUP ON ARCTIC MSI SERVICES

Taking into account resolution A.706 (17), as amended by MSC/Circ.685 and MSC/Circ.750 including the relevant decisions of COMSAR 10, the joint IMO/IHO/WMO Correspondence Group on MSI Services should give consideration and provide comments on the following:

.1 recommend a way forward to deal with the expansion of MSI services taking account of documents MSC 80/13/2 and COMSAR 10/3 (Russian Federation), COMSAR 10/3/1 (IHO) and observations from other countries in the Arctic regions;

.2 in progressing the matter also consider the following additional salient issues:

- .1 Should there be a northern limit to any new areas?
- .2 Can a seasonal service only be provided?
- .3 Who will act as NAVAREA co-ordinator and METAREA issuing service (do not have to be same country)?
- .4 Would some of the proposed new NAVAREAs be better established as sub-areas of existing NAVAREAs?
- .5 How will warnings be transmitted, and can they be monitored as required? Do systems other than Inmarsat (such as HF NBDP, NAVTEX or other satellite service providers) need to be considered?
- .6 Who will undertake provision of SAR information?
- .7 How will Inmarsat system definition manual and existing SafetyNET terminals be updated to allow receipt of the new NAVAREAs? Ideally this update needs to be co-ordinated with plans to include new areas in other parts of the world.
- .8 Will assistance be required from IHO/CPRNW to support new NAVAREA co-ordinators or from JCOMM/ETMSS for METAREA issuing services?
- .9 How will WWNWS guidance and other relevant documents be updated?

.3 prepare a report for COMSAR 11.

ANNEX F

IHO Commission on Promulgation of Radio Navigational Warnings
Eighth Meeting
Agenda item 3.1

NAVTEX PANEL Report
Submitted by: Chairman, IMO International NAVTEX Co-ordinating Panel

1. **Action Required**: None, submitted for information only.

2. **Background:** The Terms of Reference of the NAVTEX Panel are in the IMO NAVTEX Manual at Annex 1.

3. **The routine work of the Panel** is mainly associated with advising Administrations on procedures for establishing NAVTEX services and then providing identifying letters and time slots for approved additions to the NAVTEX infrastructure. Since the last meeting of the Commission, the following items have been processed by the Panel:

- Mediterranean Sea.
  - Following the very successful meeting chaired by the NAVAREA III co-ordinator (Spain) in Monaco in January 2006, a co-ordinated plan has been developed covering the Western Mediterranean. This includes new stations in Algeria and Tunisia, and new sites for three Italian stations.
  - Co-ordinated service areas for these stations as well as for adjacent existing stations were included in the plan. Allocations of B_1 characters for both International and National services have been made on a provisional basis, subject to final agreement and implementation of the plan.
  - The NAVAREA III co-ordinator is managing the implementation of the plan
  - The new Algerian station is already in service
  - The timescale for commissioning the new Tunisian station depends upon the Italian station moves as the identifying (B_1) character and time slot will transfer from one of the current Italian stations.
  - An enquiry was received at the end of July from Syria regarding a new requirement to broadcast Meteorological Bulletins to their coastal waters. Clarification has been sought as to whether the intention is to use NAVTEX or Radio Telegraphy from Coastal Radio Stations. This enquiry has also been referred to the Chairman, WMO ETMSS.

- Cabo Verde.
  - An application from Cabo Verde to operate a NAVTEX service, on both International and National frequencies, has been received.
  - The service area has been agreed for the International service, and B_1 characters for both services have been allocated. Details of operational dates are awaited.

- Senegal.
  - An application from Senegal to operate a NAVTEX service, on both International and National frequencies, has been received. This has been referred to the NAVAREA II co-ordinator (France) for initial co-ordination and agreement of service area limits (which will abut the Cabo Verde area above)

- Democratic People's Republic of Korea.

- An application has been received from the Democratic People's Republic of Korea for B_1 characters for two new NAVTEX stations at Pyongyang and Hamhung, both operating on International and National frequencies.
- The application for B_1 characters for the International service has been referred to the NAVAREA XI co-ordinator (Japan) for initial co-ordination and agreement of service areas. B_1 characters for the National service have been allocated; dates for the commencement of transmissions are awaited.

- Iceland & Faeroes.
  - Discussions between the Danish and Icelandic administrations regarding NAVTEX coverage for the east coast of Iceland and the area around the Faeroes are continuing.
  - A likely solution would see 2 new NAVTEX stations established, one on the north-east coast of Iceland (utilising one of the two B_1 characters currently allocated to Reykjavik NAVTEX) and one on the Faeroe Islands. Equipment for the station on the Faeroe Islands will be delivered in September and a trial service initiated.
  - It is hoped that a meeting of the national co-ordinators within the Baltic sub-area of NAVAREA I to be held in Denmark at the end of August 2006 will provide an opportunity to move forward the discussion on service area limits for both these stations and the amendments necessary for adjacent stations.

- Greenland.
  - An initial discussion was held in the margins of COMSAR 10 with a representative of the Greenland administration and the NAVAREA IV co-ordinator. This centred on the possibility of disestablishing NAVTEX coverage for Greenland in both NAVAREA I and NAVAREA IV and replacing the service by SafetyNET coastal warning areas. It was considered that SafetyNET would have better coverage within the fjord-like coastal waters than is currently achieved by NAVTEX. No further progress has been made on this proposal since the initial discussion.

- Germany.
  - An application from Germany to operate a NAVTEX service from a station at Pinneberg, on both International and National frequencies, has been received.
  - The service area has been agreed for the International service, and B_1 characters for both services have been allocated. The national service will start on 29 August 2006; dates for the International service are awaited.

- Caribbean Sea
  - While not part of the TORs of the NAVTEX Panel, there is much work being undertaken by Panel members, in association with the IHO Capacity building Programme, to assist many island states to establish a suitable 'maritime safety information' infrastructure. This includes establishing an authority to act as a central focus for safety information and also communications links with either neighbouring islands which have a NAVTEX facility or to a NAVAREA Co-ordinator who can put the information directly on SafetyNET; in the latter case either new SafetyNET Coastal Warning Areas would need to be established or existing areas amended. This is perceived as being a particularly important area due to the high number of cruise ships in these waters and its proximity to the Panama Canal.

- Ukraine
  - Details have been received regarding a new 490 kHz service already in operation in Ukraine from their existing NAVTEX stations at Odesa and Kerch. Due to a legacy issue surrounding the original allocation of B_1 characters for 518 kHz from these existing stations, they do not currently conform to the time slot template in the NAVTEX Manual. The Panel has responded by recommending to Ukraine that the opportunity is taken now to bring these stations into line with the NAVTEX Manual guidance and, at the same

time, two new B_1 characters for use in the new National 490 kHz service have been assigned.

4. **Current operational issues**.

- **NAVTEX Service Areas**.
  - The issue of ensuring each station broadcasting on 518 kHz has agreed service area limits has been raised before at the Commission and at recent IMO COMSAR sub-committee meetings. IHO published a Circular Letter on the subject in 2003, and COMSAR Circ 34 also addressed this subject.
  - The Panel continues with its policy of not issuing B1 characters for new stations on 518 kHz until service area limits are agreed with all concerned.

- **National Language Broadcasts on the International NAVTEX Service**.
  - Administrations were reminded at IMO COMSAR 8 and again at IMO COMSAR 9 that IMO MSC 74 approved the recommendation of IMO COMSAR 5 that non-English language broadcasts should be migrated from the International NAVTEX frequency (518 kHz) to national NAVTEX services (on 490 kHz or 4209.5 kHz) by 1 January 2005. (This was promulgated by COMSAR/Circ 28).
  - Notwithstanding this deadline that has passed, there remain around 15 stations (many in South America) where it would appear from information held by the NAVTEX Panel that there are still national language broadcasts on this frequency. No proposals for the transfer of these services to other frequencies have yet been received.

- **WWNWS expansion.**
  - The Chairman, Secretary and other members of the NAVTEX Panel are participating in the joint IMO/IHO Correspondence Group on the expansion of the WWNWS.
  - The CPRNW meeting in Buenos Aires (12 – 15 September 2006) is likely to provide an excellent opportunity to progress this work. IHO should then report back to COMSAR 11

- **WWNWS document review.**
  - The previous Secretary of the NAVTEX Panel (see Administrative issues below) is acting as Secretary of an IHO CG undertaking a review of all WWNWS documentation.
  - The group is currently focusing on IMO Resolutions A.705(17) and A.706(17). It is intended to finalise work on these two resolutions at CPRNW this Autumn, with the aim of presenting proposals to COMSAR 11. If these are agreed at COMSAR, the group will then work on cascading these amendments through the various lower level guidance documents to achieve a consistent and coherent set of documentation which includes sufficient detail to effectively regulate the current systems while allowing flexibility to easily include new technological developments as they are adopted by the Organization.

5. **Administrative issues**

- **Secretary of IMO International NAVTEX Co-ordinating Panel.** Mr Tim Sewell has transferred to a different post within the UK Hydrographic Office and is no longer the Head of the Radio Navigational Warnings section. Mr Guy Beale has joined both the section and the International NAVTEX Co-ordinating Panel, taking over as Secretary of the Panel from Mr Sewell. Mr Sewell will leave the Panel in September 2006 after the CPRNW meeting.

- **Publication of the new edition of the NAVTEX Manual.** The new NAVTEX manual (announced in IMO MSC/Circ.1122) came into force on 1st January 2006. The full text of the new version was attached as an annex to the circular.

- **ETMSS** - the Panel will be represented at the second session of the Expert Team on Maritime Safety Services (ETMSS) of the Joint IOC/WMO Commission for Oceanography & Marine Meteorology (JCOMM) from 24 to 27 January 2007 in Rio de Janeiro.

6. **Recommendations:** It is recommended that the Commission notes this report.

ANNEX G

IHO Commission on Promulgation of Radio Navigational Warnings
Eighth Meeting
Agenda item 1.5

WORLD METEOROLOGICAL ORGANIZATION

JOINT WMO/IOC TECHNICAL COMMISSION FOR OCEANOGRAPHY AND MARINE METEOROLOGY (JCOMM)
EXPERT TEAM ON MARITIME SAFETY SERVICES

SECOND SESSION

ANGRA DOS REIS, BRAZIL, 24 TO 27 JANUARY 2007

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (OF UNESCO)

ETMSS-II/Doc. 1.2(2)
(4.VIII.2006)

ITEM 1.2

Original: ENGLISH

ANNOTATED PROVISIONAL AGENDA

1. Opening of the session

1.1. Opening

The second session of the Expert Team on Maritime Safety Services (ETMSS) of the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) will open at 0930 hours on Wednesday, 24 January 2007, in Angra dos Reis, Brazil. The session will be chaired by Mr Henri Savina, chairperson of the Expert Team.

1.2. Adoption of the agenda

The Team will be invited to adopt the agenda for the session on the basis of the provisional agenda prepared by the Secretariat.

1.3. Working arrangements

The Team will agree its hours of work and other practical session arrangements. The documentation will be introduced by the Secretariat. It is expected that the documentation, and the meeting itself, will be in English only.

The ETMSS chairperson or any other members of the Team may request the consideration of additional issues. In that case, they would be requested to prepare the relevant documentation and submit it to the Secretariat in due time. Possible such issues are listed below. In addition, a few sub-items will require separate discussions and are identified as such.

2. Reports

2.1 Report of the chairperson

2.2 Report of the Secretariat

The Team will be presented with reports by the chairpersons of the Team and the Secretariat on the activities and actions taken since the first session of the JCOMM Expert Team on Maritime Safety Services (ETMSS). These reports will also touch the overall results of JCOMM-II (Halifax, Canada, September 2005), the fifth session of the JCOMM Management Committee (MAN-V) (Geneva, Switzerland, October 2006) and the third session of the JCOMM Services Coordination Group (SCG-III) (Exeter, United Kingdom, November 2006), as well as actions taken since these sessions.

2.3 Report of SafetyNET and NAVTEX panels

Under this agenda item, the Team will be presented with reports by the chairpersons of the SafetyNET and NAVTEX Panels on recent activities of these international panels.

2.4 Reports by Issuing Services

Issuing Services of the WMO GMDSS Marine Broadcast System will present brief reports on their experience, progress, success and difficulties in implementing the system within their respective METAREAs. These reports will also cover, where possible, feedback from users as well as experiences with regard to the coverage and implementation of meteorological broadcasts through the International NAVTEX Service.

2.5 Inmarsat report

Under this agenda item, the Team will be presented with a report by the representative of Inmarsat on overall activities of the Inmarsat C System.

2.6 IMSO report

The Team will be presented with a report by the representative of IMSO, especially on amendments to the IMO resolution 888 and possible consequences for Issuing Services.

2.7 IMO report

Under this agenda item, the Team will be presented with a report by the representative of IMO on overall activities relevant for the work of the ETMSS.

3. Provision of MSI for Polar Regions

3.1 Report of the chairperson of the joint IMO/IHO/WMO correspondence group on MSI services

3.2 Review of the proposals and definition of boundaries and responsibilities for new potential Arctic NAV/METAREAS

When the boundaries for the existing 16 GMDSS NAV/METAREAs were decided upon, Maritime Safety Information (MSI) broadcast facilities were not envisioned for the Arctic region. Consequently, as the opening of the Northern Sea Route for international shipping increases, gaps and problems with availability of appropriate MSI broadcasts for SOLAS ships are expecting to build up. The northern limits for the existing 16 GMDSS NAV/METAREAs are:

- At 67 degrees N just north of the Bering Strait;
- At 67 degrees N across the Davis Strait between Greenland and Canada; and
- At 71 degrees N across the Norwegian and East Greenland Seas, from the Norwegian North Cape to the Greenland Coast.

In May 2005, at the IMO Maritime Safety Committee meeting, the Russian Federation submitted a first proposal to define and adopt two new NAVAREAs covering part of the Arctic seas. Regarding IMO procedural guidance for amendments to the World-Wide Navigational Warning Service (WWNWS) and the need to ensure availability and coordination for the Arctic waters, the IHO Commission on the Promulgation of Radio Navigational Warnings (CPRNW) was asked to discuss and report its findings and recommendations to the IMO Sub-committee on Radio Communications and Search and Rescue (COMSAR).

The seventh meeting of the IHO/CPRNW, held at the International Hydrographic Bureau in Monaco from 13 to 15 September 2005, noted that the delegation from Norway appreciated the establishment of a NAVAREA to improve the safety of navigation in this vulnerable region; but did not support the Russian Federation proposal (as reported in IMO Maritime Safety Committee (MSC) 80). The COMSAR Sub-committee was tasked to consider this issue in a wider sense by considering the designation of new NAVAREAs in the Arctic as a whole.

The tenth session of the COMSAR Sub-committee, held at the IMO Headquarters, in London, from 6 to 10 March 2006, was concerned about the reservations expressed by Norway at MSC 80, which were reiterated during the session and corroborated by Iceland. The COMSAR Sub-committee also supported the IHO/CPRNW consideration that all Arctic waters should be included. During this session, a joint IMO/IHO/WMO correspondence group on Maritime Safety Information Services was established to address this problem and other associated issues. This correspondence group includes representatives of all affected countries (Canada, Denmark, Iceland, Norway, Russian Federation, United Kingdom and USA) and other interested organizations (including IMSO, Inmarsat and any other approved safety-service providers).

The Team will be presented with a brief report by the chairperson of the joint IMO/IHO/WMO correspondence group on Maritime Safety Information Services on recent activities of this Group. The Team will therefore be invited to review the suggestion by the correspondence group, in order to present, if possible, an IHO/WMO joint proposal to IMO.

3.3 IHO report on the provision of MSI related to sea ice

Under this agenda item, the Team will be presented with a report by the representative of IHO on the provision of MSI related to sea ice. Both WMO and IHO have been providing regulations and guidance materials concerning this issue. The Team will be invited to address the coordination and responsibilities between both organizations on the provision of MSI related to sea ice.

3.4 ETSI report on provision of MSI related to sea ice

The Team will be presented with a report by the ETSI chairperson on the provision of MSI related to sea ice and how the work of this Team could support MSI for mariners. The Team will be invited to discuss contents of warnings, synopsis and forecasts on weather and sea bulletins concerning sea ice information.

4. Delivery of Tsunami warnings for mariners

4.1 Organization and production of Tsunami Warning Systems

The Tsunami Warning System in the Pacific was established in 1965 to provide, on an international basis, timely tsunami warnings and to alert the system's participants as to the approach of a potentially destructive tsunami. In the same year, IOC also established the International Coordination Group (ICG) for the Tsunami Warning System in the Pacific

(ICG/ITSU). ICG/ITSU provides information and guidance, and shares knowledge and experience with the IOC Member States in the region.

Progress has been made towards the implementation of a Tsunami Warning and Mitigation System for the Indian Ocean and efforts have already been launched for the establishment of warning systems in the North Eastern Atlantic, the Mediterranean and connected seas, and for the Caribbean and adjacent regions.

The Team will be presented with a report on Tsunami Warning Systems (TWS) and recent activities. This should address TWS organization and implementation, Terms of Reference of regional and national Tsunami Warning Centres (TWC), description of warnings and associated criteria.

4.2 Coordination with IHO/CPRNW and ICGs

The seventh meeting of the IHO Commission for Promulgation of Radio navigational Warnings (CPRNW), September 2005, has agreed to establish a special joint IMO/IHO/WMO/IOC working group to address the organizations' role in the provision of Tsunami Maritime Safety Information (warnings and related information). Under this agenda item, the Team will be invited to review the ETMSS involvement, input and role at the joint IMO/IHO/WMO/IOC working group and ICGs, and to advise on this issue.

4.3 Guidelines for the provision of Tsunami Warnings for mariners (organization, type, content, formats)

Based on discussions under preceding agenda items, the Team will discuss in more detail guidance for the provision of Tsunami warnings for mariners that should address the organization, type, content and formats of warnings.

5. Coordination with other ETs and Programmes

5.1 Link with ETWS, especially on extreme waves and storm surges

The Team will be invited to discuss the interaction between the ETMSS and the JCOMM Expert Team on Wind Waves and Storm Surges (ETWS) regarding sea state information and a definition of risk indicators, especially about dangerous and complex seas and the risk of rogue/freak waves.

5.2 Cooperation with Tropical Cyclone Programme on connections between units used in TC warnings

The intensity scale and associated units used in Tropical Cyclone (TC) advisories or warnings may be different depending on the region. Such differences may not be a problem at a local or regional level, but may lead to misunderstandings about GMDSS products for SOLAS vessels. Actions should be taken in cooperation with the WMO Tropical Cyclone Programme, in order to find an appropriate solution. The Team will be invited to address this issue.

5.3 Other

Under this agenda item, the Team may consider any other issues requiring action or discussion by the Team.

6. International coordination of NAVTEX broadcasts

6.1 Guidelines for bulletins broadcast by NAVTEX

JCOMM-I had recognized that because NAVTEX broadcasting is not well adapted to relatively long weather reports, some NMSs responsible for compiling meteorological reports for this broadcast channel encounter difficulties. These are mainly associated with the size of these reports, and consequently the risk of vessels not receiving these meteorological reports may be significant. In this regard, JCOMM-II adopted Recommendation 7 (JCOMM-II) for the inclusion of complementary guidelines for meteorological forecasts and warning broadcasts through the NAVTEX Service, which would be included in Volume I, Part I of the *Manual on Marine Meteorological Services* (WMO-No. 558) and Annex VI to the WMO Technical Regulations. The Team will be invited to review these guidelines.

6.2 Review of common abbreviation list for NAVTEX messages

JCOMM-II adopted Recommendation 7 (JCOMM-II), Annex 2, for the inclusion of a list of common abbreviations to be used in meteorological forecasts and warning broadcasts through the NAVTEX Service, which would be included in Volume I, Part I of the *Manual on Marine Meteorological Services* (WMO-No. 558). The Team will be invited to review this list and propose additions as appropriate.

6.3 Report on coordination in the Baltic Sea

A system for the international coordination of meteorological broadcasts for the Baltic Sea region through the international NAVTEX Service was developed by the rapporteur on the Coordination of NAVTEX Services in the Baltic Sea Basin, Mr M. Ziemianski (Poland), and his contact group of national focal points. The second session of the CMM ad hoc Group on the GMDSS (Toulouse, France, September 1998) was presented with draft guidelines on coordination of meteorological safety information provided for shipping in the Baltic Sea area through the International NAVTEX Service. The guidelines have been implemented and have operated on a trial basis since April 1998. The guidelines were submitted to the Permanent Representatives of the countries concerned for their formal approval in 1999. Subsequently, these guidelines were approved at WMO Regional Association VI (Europe) in September 2005, for inclusion in Part II of the *Manual on Marine Meteorological Services* (WMO-No. 558). The Team will be invited to address this issue.

7. Review of WMO regulations and operational information

7.1 Guidelines for sea state description (especially extreme waves and storm surges) and sea ice information on text warnings/bulletins

Based on the information given and results of discussions conducted under the previous agenda items, the Team will be invited to review the options for describing the state of the sea and a formal method for the description of rogue and freak waves, as well as the standardization of terminology used for defining sea ice information.

7.2 Update of *Manual on Marine Meteorological Services* (WMO-No.558) and *Guide to Marine Meteorological Services* (WMO-No.471)

JCOMM-II adopted Recommendation 7, 8 and 9 (JCOMM-II) for a number of amendments to the *Manual on Marine Meteorological Services* (WMO-No. 558) and *Guide to Marine Meteorological Services* (WMO-No.471). The Team will therefore be invited to review these amendments, and make proposals and provide input in order to update these publications.

7.3 Weather Reporting (WMO-No.9), Volume D *Information for Shipping*

WMO Publication No. 9 (Weather Reporting), Volume D (Information for Shipping) has been in production for many decades. It is an essential component of

documentation of worldwide services to shipping, providing a major cross-reference of Meteorological Broadcast Schedules for Shipping and other Marine Activities, Coastal Radio Stations Accepting Ships' Weather Reports and Oceanographic Reports, Specialized Meteorological Services, etc. For WMO Members it is the chief source of metadata concerning the services provided by other countries in other parts of the world, although the speed and regularity of updates is a cause of concern.

There was an ongoing and urgent requirement for JCOMM to thoroughly review the contents and structure of the publication in light of the expected target audience, the relevance of the information provided, and capabilities for regular updating. In this context, recognizing that the publication was of value to many potential users outside National Meteorological Services, provided the information contained in it was relevant, up-to-date, and easily accessible, the Secretariat has sent a circular letter requesting WMO Members to update the information concerning their countries. Support for its review and updates were further reiterated during the second session of JCOMM (JCOMM-II, Halifax, September 2005). The Team will therefore be invited to review the publication and make proposals on its restructuring.

8. Information delivery

8.1 Weather information in graphical form for GMDSS

As stated in the 2001 amendments to SOLAS, Chapter V, weather information in graphical form is important for shipping. However, radio-facsimile broadcasts are gradually being curtailed or eliminated completely in a number of countries, for reasons beyond the control of NMSs. JCOMM has been preparing a project regarding possible transmission of SafetyNet graphical products via Inmarsat C to all mariners, both GMDSS and non-GMDSS. In view of the complexity and the work involved in this topic, the Team will be invited to review and comment on the project proposal.

8.2 Web site

A web site (http://weather.gmdss.org) was established to make available in real-time global marine forecasts and warning broadcasts via satellite under the GMDSS marine broadcast. The Team will review its structure, contents and periodic updates, engagement with the SPA and other web sites, and other relevant issues, including the potential extension of NAVTEX products, and the possible cooperation with IHO for incorporating Navigational Warnings.

8.3 User feedback

Direct interaction with and feedback from users is an essential part of the provision of high quality and valuable marine services. A marine meteorological monitoring programme was initiated by CMM in 1981 and user surveys have been conducted every four years. The Team will be invited to address this issue.

9. Review of ETMSS work plan

Based on the information given and results of discussions conducted under previous agenda items, the Team will be invited to define targets and priorities for ETMSS, taking into account the availability of resources.

10. Closure of the session

10.1 Adoption of the report

Participants will be expected to review, modify as necessary and approve the final report of the session, including action items and recommendations.

10.2 Closure

The second session of the Expert Team on Maritime Safety Services is expected to close by noon on Saturday, 27 January 2007.

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ANNEX H

IHO Commission on Promulgation of Radio Navigational Warnings
Eighth Meeting
Agenda item 1.5

PROVISIONAL AGENDA FOR THE NINTH MEETING

**To be held at the Internationa1 Hydrographic Bureau,
4 quai Antoine 1er, Monaco, commencing on Tuesday, 11 Sep 2007 at 0930**

1 OPENING REMARKS AND ADMINISTRATIVE ARRANGEMENTS

.1 Opening Remarks and Introductions

.2 Welcome by the IHB

.3 Working Arrangements

.4 Administrative Arrangements

.5 Adoption of the Agenda

.6 Review of Action Items from the 8th CPRNW Meeting

.7 Report of the XVIIth International Hydrographic Conference

2 MATTERS RELATING TO THE GMDSS MASTER PLAN

.1 IMO Resolution A.705 Document Update

3 PROMULGATION OF MARITIME SAFETY INFORMATION

.1 Results from the 11th Session of the International Maritime Organization's Sub-Committee on Communications and Search and Rescue (COMSAR)

- .1 Joint IMO/IHO/WMO CG on Arctic MSI Services Update
- .2 Tsunami Update
- .3 Amendments to IMO Resolution A.888 - Other Satellite Service Providers
- .4 Long Range Identification and Tracking (LRIT)

.2 NAVAREA Assessments of Navigational Warnings Services by Coordinators

- .1 Individual Assessments

.3 Broadcast Systems and Services

- .1 Report of the IMO NAVTEX Co-ordinating Panel
- .2 Report of the IMO SafetyNET Co-ordinating Panel
- .3 WMO Liaison Report

.4 Operational Lessons Learned for Consideration as Improvements to the WWNWS

.1 MSI Outside Limits of WWNWS

.1 Joint IMO/IHO/WMO Correspondence Group on MSI Arctic Services Update
.2 Inmarsat-C EGC SafetyNET Report
.3 WMO Actions
.4 Caspian Sea, Great Lakes and Inland Waterways
.5 The Way Forward

.5 Emerging Technologies

.1 E-Navigation Update
.2 IMO resolution A.888: Potential Presentations by Other Service Providers

4 REVIEW OF GUIDANCE DOCUMENTS

.1 Document Review Update and Status Report

.2 IMO Res. A.705(17)
.List of National Coordinators/Information Providers per NAVTEX Station

.3 IMO Res. A.706(17)

.4 Terms of Reference for the CPRNW (IHO Circular Letter 112/2005 dated 11 November 2005)

.5 International SafetyNET Manual 2003 Ed.

.6 Joint IMO/IHO/WMO Manual on MSI 2003 Ed.

.7 Joint IMO/IHO/WMO Manual on MSI S-53 App 1

.8 IMO Res A.664(16)

.9 NAVTEX Manual 2006 Ed.

.10 Implementation of the GMDSS (IHO Circular Letter 31/2000, 12 July 2000)

5 CPRNW REPRESENTATION AT REGIONAL HYDROGRAPHIC COMMISSIONS AND OTHER CONFERENCES

.1 Update on CPRNW Member Attendance at RHCs

.2 Capacity Building Training Course Progress

6 OTHER BUSINESS

.1 Update on WWNWS CD-ROM

.2 Suggested Change to CPRNW Name

.3 Next Years Meeting

7 CLOSURE OF THE MEETING

.1 Final Report

.2 Closure

ANNEX I

IHO Commission on Promulgation of Radio Navigational Warnings
Eighth Meeting
Agenda item 3.1.2

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IMO

E

Ref. T2-OSS/2.6

COMSAR/Circ.36
18 February 2005

BROADCAST OF WARNINGS FOR TSUNAMIS AND OTHER NATURAL DISASTERS

1 The Sub-Committee on Radiocommunications and Search and Rescue (COMSAR), at its ninth session (7 to 11 February 2005) considered the promulgation of warnings for tsunamis and other natural disasters using the existing International SafetyNET and/or NAVTEX systems and agreed to the following, pending the review of resolution A.706(17) on World-Wide Navigational Warning Service.

2 Tsunami Warning Centres and those who may seek to broadcast warnings as a result of natural disasters (natural disaster warnings) may make use of the existing International SafetyNET system. As a first step each Tsunami Warning Centre and those who may seek to broadcast natural disaster warnings should register with the IMO International SafetyNET Co-ordinating Panel* to obtain a certificate of authorization. A detailed procedure of the steps to be taken following registration is set out in annex 1.

3 NAVAREA and National Co-ordinators in the affected areas, or areas likely to be affected, upon receipt of any tsunami warnings or of any other natural disaster warnings should immediately re-broadcast such warnings using the highest priority and all existing means as appropriate.

4 In the interim and until Tsunami Warning Centres are established and registered, those responsible for issuing tsunami or natural disaster warnings may use the World-Wide Navigational Warning Service (WWNWS) to broadcast such warnings both regionally and locally. This may be achieved by passing the warnings to be broadcasted to the NAVAREA or National Co-ordinators for the affected areas, or areas likely to be affected. The Geographic areas for co-ordinating and promulgating NAVAREA warnings and the contact details of the NAVAREA Co-ordinators under the WWNWS are set out in annexes 2 and 3.

5 NAVAREA and National Co-ordinators in the affected areas or areas likely to be affected should consider tsunami warnings and warnings for other natural disasters as exceptional circumstances and should immediately broadcast such warnings using the highest priority and all existing means as appropriate.

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