

**11th MEETING OF THE IHO INTER-REGIONAL COORDINATING COMMITTEE
IHO-IRCC11
Genoa, Italy, 3-5 June 2019**

Report of the World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC)

Submitted by:	Chair
Related Documents:	Joint IMO/IHO/WMO Manual on Maritime Safety Information (<i>IHO Publication S-53</i>)
Related Projects:	S-124 development

Chair:	Mr. Peter Doherty, USA
Vice-Chair:	Mr. Trond Ski, Norway
Secretary:	Mr. David Wyatt, IHO
Member States:	Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Cyprus, Ecuador, Egypt, France, Germany, Greece, India, IR of Iran, Italy, Japan, Malta, New Zealand, Norway, Oman, Pakistan, Peru, Russian Federation, South Africa, Spain, Sweden, Turkey, UK, USA
Members:	IMO, WMO, IOC, IMSO
Expert Contributors:	Inmarsat, SONSAT, CIRM, Iridium

<i>See Annex A for full details</i>	
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1. Meetings Held During the Reporting Period

The WWNWS-SC monitors and guides the International Maritime Organization (IMO)/International Hydrographic Organization (IHO) World-Wide Navigational Warning Service (WWNWS, which includes NAVAREA and coastal warnings). The WWNWS-SC is responsible for studying and proposing new methods to enhance the provision of navigational warnings to mariners at sea, facilitating the implementation of the major changes in procedures for dissemination of navigational warnings and providing appropriate guidance to concerned IHO Member State Representatives to further the evolution of the WWNWS. The Sub-Committee also maintains a close liaison and cooperation with the WMO for its Worldwide Met-Ocean Information and Warning Service (WWMIWS).

The 10th meeting of the World-Wide Navigational Warning Service (WWNWS) Sub-Committee (WWNWS10) was held at the IHO Secretariat, Monaco, from 27 to 31 August 2018 under the Chairmanship of Mr Peter Doherty of the United States of America. At the same time the first meeting of the World Meteorological Organization (WMO) World-Wide Met-Ocean Information and Warning Service (WWMIWS) Committee (WWMIWS1), under the Chairmanship of Mr Johan Stander of South Africa, was also hosted by the IHO Secretariat and a number of joint sessions took place. The WWNWS10 was attended by 46 delegates from 21 IHO Member States, the Secretariat of the International Maritime Organization (IMO), the Secretariat of the WMO, the Secretariat of the International Mobile Satellite Organization (IMSO), the Chairs of IMO NAVTEX and International SafetyNET Coordinating Panels, Inmarsat, Iridium, Security of Navigation, Stabilisation, Advice and Training (inc AWNIS) (SONSAT) and the IHO Secretariat. A representative of the Intergovernmental Oceanographic Commission (IOC) of UNESCO joined by remote link for discussions on tsunami warning messages. The delegates included representatives of 18 NAVAREA Coordinators, one Sub-Area Coordinator and six National Coordinators.

The 17th meeting of the Document Review Working Group was held at the IMO, London, 29 to 31 January 2019, the week immediately after the 6th session of the IMO Sub-Committee on Navigation,

Communications, and Search and Rescue (NCSR 6). The meeting was attended by 4 Member States (Canada, New Zealand, Norway, USA), and the representatives from Secretariats of the IMO, WMO and IMSO, Inmarsat and Iridium.

2. Work Programme

WWNWS Documentation

The work of the 16th meeting of the Document Review Working Group (DRWG) was reviewed. In particular the resultant outcomes of the discussions at the 5th session of the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 5), the impacts of the Inmarsat I3 to I4 satellite migration and the recognition of the Iridium satellite system on all the MSI documentation. It was agreed that the IMO resolutions A705(17), as amended, - *Promulgation of Maritime Safety Information*, A706(17), as amended, - *World-Wide Navigational Warning Service*, and A1051(27) - *IMO/WMO Worldwide Met-Ocean Information and Warning Service – Guidance Document* - would all be submitted to NCSR 6 in early 2019 for subsequent adoption at IMO Maritime Safety Committee (MSC) 101. Considerable effort was directed to revising the International SafetyNET Manual, however it was recognised that the amendments required could not be achieved before the IMO submission deadline for NCSR 6 of 9 October 2018; it was agreed that it would be more appropriate to make a submission at NCSR 7.

It was agreed that the 17th meeting of the Document Review WG (DRWG17) would continue the review of the International SafetyNET Manual and prepare proposed amendments for consideration at WWNWS11 in 2019 and subsequent submission to NCSR 7 in 2020. At the same time the Joint IMO/IHO/WMO Manual on MSI will be reviewed in coordination with the International SafetyNET Manual and the IMO NAVTEX Manual.

Iridium agreed to continue to develop its documentation to support its GMDSS service, which follows the format of the International SafetyNET Manual, but remains a separate document until a mature operational state has been achieved, after which consideration for a single generic manual for the two systems would be contemplated. It is planned to conduct an in-depth review of the current draft manual at DRWG17, at which time it will be determined whether further review is required or whether it can be submitted to WWNWS11 for approval.

All draft documents under development by the Sub-Committee are available via the WWNWS page of the IHO web site. Member States are encouraged to review the documents and submit comments to the Chair (Mr Peter Doherty, e-mail: Peter.M.Doherty@nga.mil) and the IHO Secretariat (Assistant Director David Wyatt, e-mail: adso@iho.int). Any proposed changes or amendments and further work will be undertaken at the DRWG17, which will be held the week after the sixth session of the NCSR at IMO Headquarters in London in late January 2019. The drafting work will be finalised at WWNWS11 and then submitted to the IMO for approval.

The outcomes of the 6th session of the IMO Sub-Committee on Navigation, Communications, and Search and Rescue (NCSR 6) relevant to the WWNWS-SC were reviewed. These included the work of a number of Correspondence Groups and groups developing equipment guidelines in which WWNWS-SC members should be involved.

As a consequence of the decisions made at the 99th session of the Maritime Safety Committee (MSC 99) and NCSR 6, in particular the recognition of Inmarsat Fleet Safety and the Iridium satellite service as recognised mobile satellite services of the Global Maritime Distress and Safety System (GMDSS), the DRWG completed a comprehensive revision of the International SafetyNET Manual to include details of the Fleet Safety services and the results of the migration from the I3 to the I4 satellite constellations. The draft revisions will be considered by the 11th meeting of the WWNWS-SC (WWNWS11), which will be held from 26 to 30 August 2019 in Halifax, Canada, and subsequently be submitted to the 7th session of the NCSR scheduled 15 to 24 January 2020. The DRWG also generated the draft preliminary interim version of the Iridium SafetyCast services manual, which will support the work undertaken by Iridium during the initial operational assessment phase of their service. The draft manual will be

submitted to MSC 101 for approval. Subsequent to gaining initial operational experience, it is planned to undertake a further revision of the Iridium manual at DRWG18, in preparation for submission to the 12th meeting of the WWNWS-SC (WWNWS12) in 2020.

The DRWG also reviewed the draft agenda for the 11th session of WWNWS-SC in preparation for the meeting in August 2019 and noted the next document due for comprehensive review was the IMO NAVTEX Manual, which will be commenced at DRWG18 in 2020.

GMDSS / MSI Briefing

The Sub-Committee received MSI self-assessment reports from all 21 NAVAREAs. A number of issues were highlighted, which will require further investigation and input from the Chair of the WWNWS-SC, as well as the Chairs of the International SafetyNET and IMO NAVTEX Coordinating Panels. The Chair agreed to assist NAVAREA Coordinators, through the IHO Secretariat, to gain the support of National Coordinators in ensuring that all SOLAS MSI responsibilities were being met.

The contents of the relevant Annexes of the GMDSS Master Plan were reviewed. The IHO Secretariat highlighted a number of differences between the information contained in the Annexes of the GMDSS Master Plan and the IHO Publication C-55 – *Status of Hydrographic Surveying and Nautical Charting Worldwide*. NAVAREA Coordinators were requested to highlight to National Coordinators the conflicting information in the two documents and to request that they investigate to ensure consistency for their national entries.

The Secretariat of the WMO provided a brief on the activities of the Organization over the past year and the need for closer working relationships with partner organizations, in particular the IHO and IMO, was highlighted. Background on the work of supporting and enhancing of national Marine Weather Services was provided and the Multi-Hazard Early Warning System (MHEWS) developments together with the Global Multi-Hazard Alert System (GMAS) were brought to the attention of the participants. Also highlighted was the involvement in the IMO Member State Audit Scheme with respect to the provision of meteorological services.

The IMO Secretariat provided an update on IMO activities, which included highlighting a comment from the IMO Secretary-General on the importance of close relationship between the IMO, IHO and WMO and the ongoing work of maintaining the MSI documentation. It was noted that there had been an increase in the discussions on strategic shipping issues at IMO meetings and therefore less time was available for technical issues, much of which was being undertaken by partner organizations. The most recent version of the GMDSS Master Plan had been issued in July, but in future it was intended that IMO member states would directly update the information via the Global Integrated Shipping Information System (GISIS). The migration process was underway with the checking of all information in the current Master Plan to ensure all detail has been migrated, once complete an IMO circular will be issued with details and directions on how to update individual annexes by each Member State. It was indicated that there could be a link to a list of NAVAREA and METAREA Coordinators, potentially on the IHO and WMO websites, although this had yet to be agreed between the organizations.

The Secretariat of IMSO provided a presentation on its background and role, activities related to MSI provision, multi-provider issues and capacity building. Particularly highlighted was the cooperation agreements with other organizations and authorities as well as the developments for the Inmarsat system and the recognition of the Iridium system. The ongoing work to update the Public Service Agreement in preparation for signature by Iridium and re-signing by Inmarsat was explained.

The Chair of the International SafetyNET Coordinating Panel gave a presentation covering some background and the Terms of Reference of the Panel. The Chair noted that the Panel will expand its remit to cover all service providers as they are recognised and become operational. He noted a number of changes to terminology which would be required as a result of the recognition of Iridium, these included a change of title of the Panel and amendments to the Terms of Reference, all of which would be submitted to NSCR 6 for consideration.

The Sub-Committee also received several other briefings. Inmarsat reported on progress on the Inmarsat-C EGC SafetyNET system developments, including the new SafetyNET II system, the recognition of the Fleet Broad band as part of the GMDSS and its progression to a global service on completion of the I6 deployment. Additional details on the Inmarsat programme for the migration from the I3 to I4 satellites was provided, additional details are available from the Inmarsat website (<https://www.inmarsat.com/support/i-3-to-i-4-services-migration/>).

The Chair of the S-124 Correspondence Group updated the Sub-Committee on the progress in the development of the S-124 Navigational Warnings Product Specification. Draft symbols and associated warning script were discussed. It was recognized that further work was required, with the close engagement of the NAVAREA Coordinators, to ensure the final version meet the requirements of the user community as well as the information providers.

Iridium provided an update on developments of the Iridium Satellite system, since being recognised by the IMO at MSC 99, as well as the enhancements of the system which are being undertaken in preparation for becoming operation. New system capabilities and developments, which are being considered for the future, were described. It was noted that there remained a number of issues to be addressed, which included completion of the Iridium system manual. It was noted that broadcast monitoring in a multi-provider environment and the development of multiple system capable terminals were two items which needed to be considered at NCSR before additional providers were recognised.

The IOC Secretariat provided an update on the work of the Tsunami and Other Hazards Warning Service (TOWS), which included the presentation of draft warning messages to be issued through the mobile satellite service providers and to be included as examples in the Joint IMO/IHO/WMO Manual on MSI. Details on the Tsunami Warning Service and the Tsunami Service Providers (TSP) were given.

MSI Capacity Building (CB) Training Course

The meeting received updated information on the IHO Capacity Building strategy and the inter-action between the NAVAREA Coordinators, Regional CB Coordinators, Regional Hydrographic Commissions and national organizations to help developing nations to reach the Phase 1 level (collection and circulation of nautical information, necessary to maintain existing charts and publications up to date) of the IHO CB Strategy. The meeting was informed that MSI courses had been conducted in 2018 in Wellington, New Zealand for members of the South West Pacific Hydrographic Commission and in Niterói, Brazil for members of the South West Atlantic Hydrographic. Additionally, it was noted that one course was planned in 2019 in Mauritius for the Southern African and Islands Hydrographic Commission.

Next Meeting

The eleventh meeting of the WWNWS-SC (WWNWS11) will be held in Halifax, Canada, from 26 to 30 August 2019. All NAVAREA Coordinators and National MSI Coordinators are encouraged to attend the meetings of the WWNWS-SC to broaden their experience and interact with each other. It was also agreed to hold a further collocated meeting with the WWMIWS-C in 2020 or 2021.

3. Progress on IRCC Action Items

Action 7: Spain volunteered to translate the MSI training material developed with resources from the CB Fund from French to Spanish and report back to IRCC (deadline: IRCC11).

- No specific action taken at this time.

Action 8: WWNWS-SC Chair to report the status of MSI in coastal States to the next IRCC meeting (deadline: IRCC11)

- NAVAREA IV/XII began work with US-NOAA to create a geospatially enabled, web-accessible representation of the status of MSI support in the MACHC (see Attachment 1). Coastal States would be categorized by colour, supported by data, to indicate their

status: White—no IHO MSI training and not providing MSI, Red—received IHO MSI training and not providing MSI, Yellow—received IHO MSI training and providing moderate MSI, and Green—fulfilling all MSI obligations. The WWNWS-SC hoped to have a similar colour coding, as a next step, in a spreadsheet for each RHC by IRCC11. However, based on NAVAREA Self Assessment reports from WWNWS10, the data is not as complete as desired. Updated guidance for WWNWS11 Self-Assessment reports will help capture more thoroughly MSI contributions from National Coordinators, and also explain how it will be used in future IRCC and RHC meetings to assess Coastal State MSI support.

4. Problems Encountered

A critical issue for the continued success of the MSI course was the lack of qualified trainers; the Chair noted the only French instructor qualified and available to deliver the MSI course retired at the end of October 2017. This has restricted the opportunities for delivering courses in French. The lack of Spanish speaking instructors means that the course can only be delivered in English at present. It was suggested that a course could be developed to train new trainers, who had a suitable background and the necessary operational experience. It was recognised this would need to be funded and fitted into the IHO CB strategy plan, it was recommended this issue was raised to the next CBSC. The WWNWS-SC recorded its thanks to Australia, France, New Zealand, UK, and USA for their significant support in conducting the training courses and in the work undertaken in addressing the continuing requirement to review the training material to ensure consistency with the amended supporting documentation

5. Any Other Items of Note

It is with great satisfaction, appreciation and admiration that the WWNWS-SC reports that the Chairman of the IMO NAVTEX Coordinating Panel, Mr. Bill Van-Den-Berg, United Kingdom, retired in January of 2019. The WWNWS-SC expresses its sincere gratitude for his outstanding service, support and dedication to the safety of navigation, which started when he joined the Royal Navy as a Seaman on 18 August 1969. In August 1986 he entered the officer ranks. He subsequently served in HM Ships MANCHESTER, ILLUSTRIOUS and INVINCIBLE, where his duties included Officer of the Watch (OOW) and Operations Room Officer. Mr. Van-Den-Bergh was involved in maritime communications throughout his career in the Royal Navy. He was appointed by Her Majesty The Queen as a Member of the Most Excellent Order of the British Empire (MBE) in May 2004.

After leaving the Royal Navy he joined the United Kingdom Hydrographic Office in 2007 as a Sailing Directions Editor until August 2011. From that point until his retirement he worked within the Radio Navigation Warnings (RNW) department and was appointed Head of Department in March 2014. That promotion also earned him the distinct title of NAVAREA I Coordinator and Chairman of the International Maritime Organization NAVTEX Coordinating Panel.

Mr. Van-Den-Bergh tirelessly served the UKHO, IMO, and IHO. His dedication, knowledge, and experience won't easily be replaced. What we will all miss most is his friendship. We wish him only the best and always fair winds and following seas.

6. Conclusions and Recommendations

WWNWS Operations:

As a consequence of the decisions made at the 99th session of the Maritime Safety Committee (MSC 99) and NCSR 6, in particular the recognition of Iridium satellite service as a recognised mobile satellite service of the Global Maritime Distress and Safety System (GMDSS), all WWNWS NAVAREA Coordinators will need to conclude an agreement with Iridium and all other recognized mobile satellite service providers, serving their required ocean region. Adding the Iridium service will double the operating costs of all NAVAREA Coordinators today and in the future, and, as additional recognized mobile satellite service providers are approved, may triple those costs potentially jeopardizing the ability

for some NAVAREA Coordinators to continue to provide this vital maritime safety information service. This is a concern that needs to be closely monitored and addressed.

MSI Capacity Building and MSI Training:

- The continued success of the MSI Training course is contingent upon qualified lead instructors. Currently there are only two lead instructors, both from the United States, with no French or Spanish language speaking instructors. Additional CBSC funding support may be necessary to facilitate instructor recruitment and training.

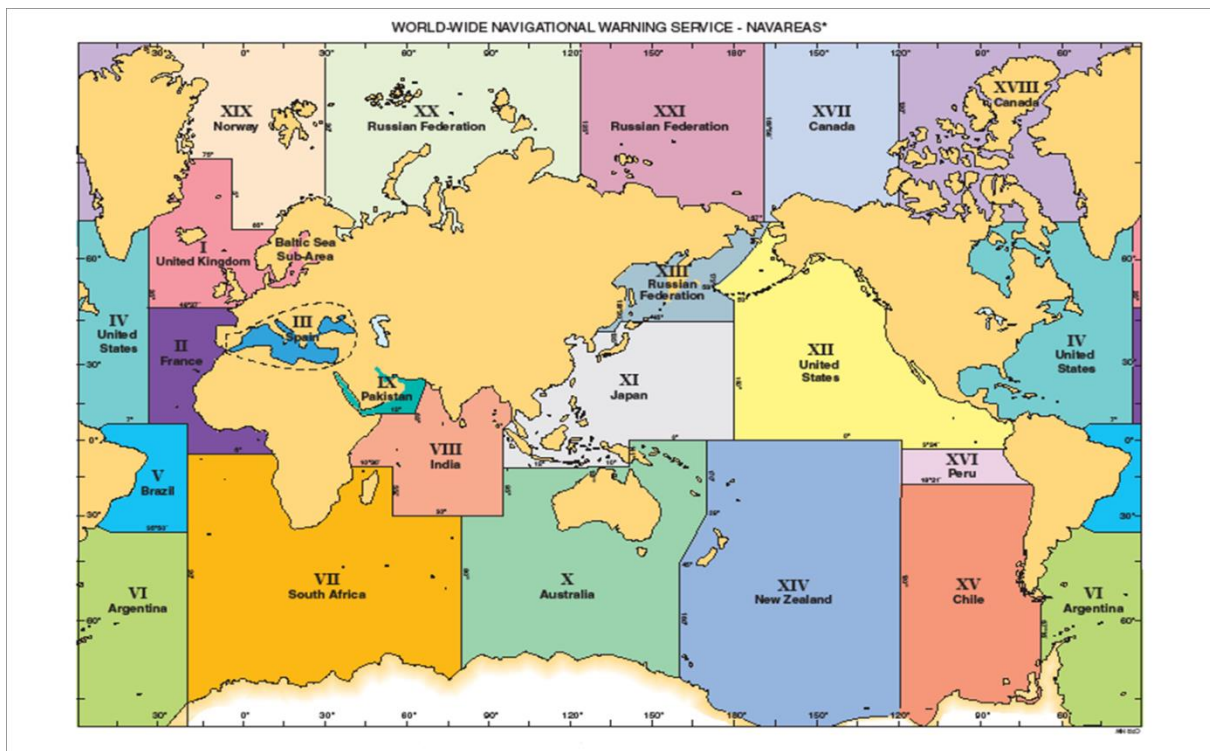
7. Justifications and Impacts

N/A

8. Action requested of the Committee

The Committee is invited to:

- take note** of the information provided in this report on the outcomes of WWNWS10;
- request** National Coordinators review the contents of the relevant Annexes of the GMDSS Master Plan and IHO Publication C-55 – *Status of Hydrographic Surveying and Nautical Charting Worldwide* – to ensure consistency for their national entries.
- urge** the use of the Joint Manual on MSI to ensure correct terminology and formats are used in MSI messages;
- encourage** closer engagement of the National MSI Coordinators of Member States with the relevant NAVAREA Coordinator(s);
- urge** close liaison between regional CB Coordinators and the Chair WWNWS-SC on programming and candidate selection for MSI training;
- encourage** the attendance of Member States and Observers at WWNWS-SC meetings; and
- take** any other action it considers appropriate.



World Wide Navigational Warnings Service Sub-Committee (WWNWS-SC)**LIST OF MEMBERS as of 3 April 2019****NAVAREA and Sub-area Coordinators Permanent Members****CHAIRMAN/U.S.A. (NAVAREA IV & XII)**

Mr. Peter Doherty
Deputy Director NOX
ATTN: N65-SP
7500 GEOINT Drive
Springfield, VA 22150-7500
Tel: +1 (571) 557 6746
Fax: +1 (571) 557 3261
E-mail: Peter.M.Doherty@nga.mil
Christopher.G.Janus1@nga.mil
NAVSAFETY@nga.mil

Tel: +55 21 2189-3023
Fax: +55 21 2189-3210
E-mail: caula@marinha.mil.br; segnav@marinha.mil.br

ARGENTINA (NAVAREA VI)

Commander Eduardo Galante
Head Maritime Safety Department
Naval Hydrographic Service
Montes de Oca 2124
C 1270ABV Buenos Aires
Tel: +54 11 4301-2249/4301-0061/67 Ext 4028
Fax: +54 11 4301-2249
E-mail: jsnautica@hidro.gov.ar; shn_orgint@hidro.gov.ar
Liutenant Commander Rubén Di Marco
snautica2@hidro.gov.ar

CANADA (NAVAREA XVII & XVIII)

Ms Lucia Bakker
Operational Support
Canadian Coast Guards
Centennial Towers
200 Kent Street
Ottawa
Ontario K1A 0E6
Tel: + 1 613 990 7572
Fax: + 1 613 990 4519
E-mail: Lucia.Bakker@dfo-mpo.gc.ca

AUSTRALIA (NAVAREA X)

Mr Craig Longmuir
Search and Rescue
Australian Maritime Safety Authority
GPO Box 2181
Canberra, ACT, 2601
Tel: +61 (2) 6230 6811
Fax: +61 (2) 6230 6868
E-mail: Craig.Longmuir@amsa.gov.au

CHILE (NAVAREA XV)

Rear-Admiral Patricio Carrasco
Director, Hydrographic and Oceanographic
Service of the Chilean Navy
Errázuriz 254
Playa Ancha
Valparaíso
Tel: +56 32 2266666
Fax: +56 32 2266542
E-mail: hidrografia@shoa.cl

Mr. Peter Naumovski
Nautical Assessment Officer
Australian Hydrographic Office
8 Station Street
Wollongong
NSW2500
Tel: +6 (02) 4221 8500
Fax: +6 (02) 4221 8599
Peter.naumovski@defence.gov.au

FRANCE (NAVAREA II)

Mr Pierre-Jean Guionin
Assistant Chief of Department
"Informations et Ouvrages Nautiques"
Service hydrographique et océanographique
de la marine
13 Rue du Chatellier
CS 92803
29228 BREST Cedex2
Tel: +33 2 56 31 24 01
E-mail: amandine.lebouvier@shom.fr

BRAZIL (NAVAREA V)

Lt Cdr Alexandre Mattos de Caúla e Silva
Head of Planning and Control Division
Brazilian Hydrographic Center
Rua Barao de Jaceguay, s/n°
Ponta D'Areia - Niteroi - RJ
CEP: 40.048-900

INDIA (NAVAREA VIII)

Joint Director of Hydrography
Maritime Safety Information Services (MSIS)
National Hydrographic Office
107-A, Rajpur Road
P.B. No. 75, Dehradun,
Uttarakhand - 248 001
Tel: +91 135 2747365
Fax: +91 135 2748373
E-mail: msis-inho@navy.gov.in; ncdm-inho@navy.gov.in
(For urgent NAVAREA promulgation)
inho@navy.gov.in

JAPAN (NAVAREA XI)

Mr. Terukazu Terada
 Notices to Mariners Office
 Hydrographic and Oceanographic Department
 Japan Coast Guard
 3-1-1, Kasumigaseki, Chiyoda-ku,
 Tokyo 135-8932
 Tel: +81-3-3595 3571
 Fax: +81-3-3595 3647
 E-mail: tuho@jodc.go.jp; jcg-tuho@navarea11.go.jp

NEW ZEALAND (NAVAREA XIV)

NAVAREA XIV Coordinator
 Maritime New Zealand
 RCCNZ
 41 Percy Cameron Street
 Avalon Studios Level 1
 PO Box 30050
 Lower Hutt 5040
 Tel: +64 4 577 8030 (24 hours)
 FAX: +64 4 577 8038 (24 hours)
 E-mail: rccnz@maritimenz.govt.nz (24 hours)
 Website: <http://www.maritimenz.govt.nz/navarea>

NORWAY (NAVAREA XIX)

Mr. Trond Ski
 Department of Maritime Safety
 Norwegian Coastal Administration
 Postbox 1502
 6025 Ålesund
 Tel: +47 33 034808 /
 Tel Direct: +47 70 231064
 Fax: +47 70 231008
 E-mail: trond.ski@kystverket.no

PAKISTAN (NAVAREA IX)

Lt Cdr Waqas Iqbal PN
 Area Coordinating Office NAVAREA IX
 PN Hydrographic Dept
 11, Liaquat Barracks
 Karachi - 75530
 Tel: +92 21 48506151-4
 Fax: +92 21 99201623/99203246
 E-mail: hydrogk@paknavy.gov.pk; hydrpk@gmail.com
 Website: www.paknavy.gov.pk/hydro

PERU (NAVAREA XVI)

Jorge Paz Acosta
 Dirección de Hidrografía y Navegación
 Postal code: 80 – Callao - 1
 Street Roca N° 118 Chucuito – Callao
 Tel: +51-1 465 8312/2078162/2078160
 Fax: +51-1 2078178
 E-mail: jpaz@dhm.mil.pe

RUSSIA (NAVAREA XIII)

Captain Igor Viktorov
 Chief, Notice to Mariners Division

Department of Navigation and Oceanography
 Ministry of Defence, Russian Federation
 2 Atamanskaya st.
 St Petersburg 191167
 Tel/Fax: +7 812 717 59 00
 E-mail: unio_navarea@mil.ru

RUSSIA (NAVAREA XX & XXI)

NAVAREA XX / XXI Co-ordinator
 Рыжук Юрий Евгеньевич
 Yuriy Ryzhuk
 Federal State Unitary Enterprise “Rosmorport”
 Bid. 7, 19 Sushevskaya Street
 Moscow
 127055
 Tel: 7 495 626 14 25
 Fax: +7 495 626 12 39
 E-mail: y.ryzhuk@rosmorport.ru; navarea@rosmorport.ru

SOUTH AFRICA (NAVAREA VII)

Captain Theo Stokes
 Hydrographer SA Navy
 Hydrographic Office
 Private Bag X1
 Tokai
 7966 Cape Town
 Tel: +27 (21) 787 2408 or 787 2445/44
 Fax: +27 (21) 787 2233 or 787 2228 (24hrs)
 E-mail: hydrosan@iafrica.com
 Website: <http://www.sanho.co.za/>

SPAIN (NAVAREA III)

Cdr. Alejandro Herrero Pita
 Head of the Navigational Area
 Instituto Hidrografico de la Marina
 Plaza San Severiano No 3
 11007 Cadiz
 Tel: +34 (956) 599409; 599399
 Fax: +34 (956) 599396
 E-mail: avisosihm@fn.mde.es; ihmesp@fn.mde.es
<http://www.armada.mde.es/ihm/>

SWEDEN (BALTIC SUB-AREA, NAVAREA I)

Mr. Johan von Bültzingslöwen
 Baltic Sea Sub-Area Coordinator
 Swedish Maritime Administration
 NtM/BALTICO
 SE-601 78 Norrköping
 Tel: +46 727 29 05 35
 E-mail: johan.bultzingslowen@sjofartsverket.se
ufs@sjofartsverket.se

UNITED KINGDOM (NAVAREA I)

Mr Stephen Gregory
 United Kingdom Hydrographic Office
 Admiralty Way
 Taunton

Somerset TA1 2DN
Tel: +44 1823 723328
Fax: +44 1823 332352
E-mail: stephen.gregory@ukho.gov.uk

Secretary DRWG

Mr. Trond Ski
Department of Maritime Safety
Norwegian Coastal Administration
Postbox 1502
6025 Ålesund
Tel: +47 33 034808 /
Tel Direct: +47 70 231064
Fax: +47 70 231008
E-mail: trond.ski@kystverket.no

Coordinator S-124 Correspondence Group

Mr Eivind Mong
eNavigation System Analyst, Electronics and Informatics,
Integrated Technical Services
Canadian Coast Guard
Centennial Towers
200 Kent Street
Ottawa
Ontario K1A 0E6
Tel: + 1 289-983-9134
E-mail: eivind.mong@dfp-mpo.gc.ca

National Coordinators and Participating IHO Member States**CHINA**

Ms. Jun Chi
National Coordinator
Dept of Maritime Traffic Management
Maritime Safety Administration
11 Jianguomennei Avenue
Beijing 100736
China
Tel: +86 10 65292325
Fax: +86 10 65292465
warning@msa.gov.cn

COLOMBIA

Cdr Gustavo Gutiérrez
Head of National Hydrographic Service
Barrio El Bosque
Escuela naval
Cartagena
Tel: +57 5 669 4465
Fax: +57 5 318 437 6190
E-mail: ggutierrez@dimar.mil.co; jefcioh@dimar.mil.co

CYPRUS

Cdre Costas Fitis
JRCC-Cyprus Radio Commander
50 Spyros Kyprianou
Larnaca
PC 6057
Tel: +35 72 464 3005
+35 72 430 4452
Fax: +35 72 466 9950
E-mail: cyprus.radio@jrcc.org.cy; info@jrcc.org.cy

ECUADOR

Cdr Gustavo Gutiérrez
Head of National Hydrographic Service
Barrio El Bosque
Escuela naval
Cartagena
Tel: +57 5 669 4465
Fax: +57 5 318 437 6190
E-mail: ggutierrez@dimar.mil.co; jefcioh@dimar.mil.co

EGYPT

Director, Navigation and Hydrographic Department
Ras El Tin
Alexandria
Tel: +20 3 480 1438/3077
Fax: +203 480 2233
E-mail: ashraf.elassal@gmail.com

GERMANY

Mr. Axel Nauendorf
Federal Maritime & Hydrographic Agency
Neptunalle 5
18057 Rostock

Tel: +49 (0) 381 4563 674
Fax: +49 (0) 381 4563 769
E-mail: axel.nauendorf@bsh.de

GREECE

Hellenic Navy Hydrographic Service
Commander Dimitrios Evangelidis HN
Director
Stratopedo Papagou
TGN 1040 Athens
Tel: +30 (210) 6551750; 6551751;
Fax: +30 (210) 6517811
Mob : 0030 6947159169
E-mail: director@hnhs.gr

IRAN

Mr Saeid Parizi
Ports and Maritime Organisation (PMO)
Maritime Affairs Department
South Didar Street Jahan-e Koodak Cross Road
Tehran, 15186
Tel: + 98 21 84931 Ext 2152
Fax: +98 21 84932675
E-mail: hydro@pso.ir; parizi@pso.ir

ITALY

Head Italian Coast Guard Headquarters
Viale Dell'Arte, 16
00143 – Rome
Tel : +390659083226
Fax +390659084793
+39065922737
E-mail : sergio.mingrone@mit.gov.it; navtex@mit.gov.it

MALTA

Mr Joseph Bianco
Hydrographer
Ports and Yachting Directorate
Transport Malta
Malta Transport Centre
Marsa
MRS 1917
Tel: +356 2291 4430
Fax: +356 2291 4429
E-mail: joe.bianco@transport.gov.mt

MONACO

Affaires Maritimes
Quai Jean Charles Rey
BP 468
MC98012 MONACO Cedex
Principauté de Monaco
Tel: +377 93 15 37 00
Fax: +377 93 15 37 15
E-mail: marine@gouv.mc

OMAN

tbc

Oman National Hydrographic Office

Bait Al Falaj

P.O Box 113 –Muscat

Postal code 100

Tel (Office): 00968 24312166

(Fax) 00968 24312460

E.mail: nhooman@omantel.net.om

TURKEY

Ms Pervin Keser (Navtex Broadcast Co-ordinator)

(General Directorate of Coastal Safety – Turkish Radio)

Havaalanı E Kapısı Shell Benzinlik Karşısı

34630- Sefakoy -Istanbul

Tel: +90212 4259734

Fax : +90212 5410338

E-mail: Pervin.Keser@kiyiemniyeti.gov.tr

Office of Navigation, Hydrography and Oceanography

(National Co-ordinator)

SHODB, 34805, Çubuklu

Istanbul

Tel: +90 216 322 2580

Fax: +90 216 331 0525

Email: info@shodb.gov.tr; hkuslsroglu@shobd.gov.tr

Ex-Officio Members**IHO**

Mr David Wyatt
 International Hydrographic Bureau
 4B Quai Antoine 1^{er}, BP 445
 MC 98011 MONACO Cedex
 Principauté de Monaco
 Tel: +377.93.10.81.03
 Fax: +377 93.10.81.40
 E-mail: adso@iho.int

Fax: + 44 (0) 20 7728 1172

E-mail: dg@imso.org; jenny.ray@imso.org

IMO

Mr. Osamu Marumoto
 Maritime Safety Division
 International Maritime Organization (IMO)
 4 Albert Embankment
 London SE 1 7 SR
 United Kingdom
 Tel: +44 (0) 20 7587 3161
 Fax: +44 (0) 20 7587 3210
 E-mail: omarumot@imo.org; hvander@imo.org

WMO

Dr Sarah Grimes
 Officer in Charge
 Marine Meteorology and Ocean Affairs Division
 Weather & Disaster Risk Reduction Service Department
 World Meteorological Organization
 7bis, Avenue de la Paix,
 Case postale No 2300
 CH-1211 Geneve 2
 Switzerland
 Tel: +41 22 730 8242
 Fax: +41 22 730 8128
 Email: sgrimes@wmo.int

Mr. Neal Moodie
 Chair WMO/IOC JCOMM ETMSS
 National Manager - Marine Weather Services
 Bureau of Meteorology, Melbourne
 700 Collins Street
 Docklands
 GPO Box 1289
 Melbourne VIC 3001
 Australia
 Tel: +61 3 9669 4768
 E-mail: N.Moodie@bom.gov.au

IMSO

Capt Moin Ahmed
 Director General
 International Mobile Satellite Organization (IMSO)
 99 City Road
 London EC1Y 1AX
 United Kingdom
 Tel: +44 (0) 20 7728 1497

Expert Contributors**Inmarsat Global Ltd**

Mr John Dodd
99 City Road
London
EC1Y 1AX
United Kingdom
Tel: +44 207 7281095
E-mail: John.Dodd@inmarsat.com

Ms. Dana Jongens
99 City Road
London
EC1Y 1AX
United Kingdom
Tel: +44 207 7281095
E-mail: dana.jongens@inmarsat.com

SONSAT (inc. AWNIS)

Mr Michael White
BMEZZ 2
United Kingdom Hydrographic Office
Admiralty Way
Taunton
Somerset TA1 2DN
Tel: +44 1823 483446
Mobile: +44 7766 424188
E-mail: michael.white@ukho.gov.uk

Iridium Ltd

Mr Christopher Snowdon
Advisor to Iridium
Access Partnerships Ltd
4th Floor
Broadway Studios
20 Hammersmith Broadway
London
W6 7AF
Tel: +44 20 8600 0630
E-mail: chris.snowdon@accesspartnership.com

Iridium Ltd

Mr Kyle Hurst
General Manager Aviation and
Maritime Businesses
Iridium Satellite
1750 Tysons Boulevard, Suite 1400
McLean
VA 22102
Tel: +1 703 287 7429
Mobile: +1 240 274 2867
E-mail: Kyle.Hurst@iridium.com

