

Meeting Report
8th North Indian Ocean Hydrographic Commission (8th NIOHC)
Goa, India – 15th – 17th April, 2008

OPENING FORMALITIES

1. WELCOME ADDRESS BY HOSTS

Rear Admiral BR Rao, Chief Hydrographer to the Government of India, extended a warm welcome to all dignitaries and participants. He expressed his honour at being able to host this, the 8th NIOHC meeting, and noted the uniqueness of the gathering. Formed in 2002, mutual understanding of regional matters has enabled great achievements in navigation safety.

He noted the great advances made by India, in pace with developments, enabling India to provide a regional training centre. With funding under IPEX scheme contributing to capacity building, the National Hydrographic School is able to provide multibeam courses with fees waived. India has been developing MOUs, and INHO bilaterals, in the region, undertaking surveys and providing training.

After highlighting the impacts which technology, such as GPS, has on understanding, he noted the need to consider how to accelerate progress, with sound and practical ideas for addressing challenges. He closed by reiterating his welcome to the meeting.

2. ADDRESS BY NIOHC CHAIRMAN

Rear Admiral I Moncrieff, UK National Hydrographer and NIOHC Chairman, expressed his thanks for Admiral Rao's words of welcome, his pleasure at being in India, and, understanding the work involved, his appreciation of India's professional arrangements for the meeting.

He had been heartened, on reading the National Reports, by the progress being made in the region. He looked forward to a productive meeting, encouraging participants to make the most of the opportunities presented, and not be reticent, noting there is no monopoly on good ideas.

He reminded participants of the strength of common knowledge held by members of the IHO, with Regional Hydrographic Commissions (RHCs) the IHO's heartbeat. He reiterated that there was much work and achievement to be done, amongst friends and colleagues, all of whom have something to contribute. As Chairman, he would be seeking to drive and steer the meeting along, to achieve positive outcomes, united in the common aim of the work of the IHO, and focussing on what NIOHC wants to achieve.

3. ADDRESS BY PRESIDENT IHB

Vice Admiral A Maratos, President IHB, expressed his pleasure at attending the meeting. The last two IHO Conferences had seen Members approve amendments to its Convention. The most important aspect of the amended Convention was the unanimous acceptance that the backbone of IHO is the global network of RHCs. Two thirds of seats on Council will be allocated to RHCs and one of the two main committees will be mainly made up of RHCs. As a result, RHCs take on a new and more important character, monitoring activities in regions.

The most important issue currently being faced by the IHO is the demand for consistent, high quality, ENCs. It presents a major challenge for the organization, together with IMO implementation of their mandate. The importance of hydrography has been recognized by the UN General Assembly and, within IMO, hydrography has a high profile, with MSC Circular in 2005 urging Member States to address the deficiencies revealed in IHO S-55. The XVIIth International Hydrographic Conference (IHC), in May 2007, resolved to provide additional effort to expedite the provision of charts, surveys, and MSI, in those regions with limited capacity.

He thanked Admiral Rao for the excellent arrangements and gave his best wishes to Admiral Moncrieff and participants for a successful meeting.

§. **INAUGURAL ADDRESS BY CHIEF GUEST**

The Chief Guest, Vice Admiral KN Sushil, AVSM, NM, Inspector General Nuclear Safety, delivered the inaugural address. He welcomed guests and noted the honour and privilege of speaking to this international commission meeting in Goa, the home of hydrography and oceanography in India. He put the current meeting into context by summarizing the history of marine cartography, hydrographic survey, navigation and shipping, from early beginnings. He noted the present day demands and benefits presented by technology and e-communication and emphasized the requirement to retain hydrographic expertise. He concluded with his good wishes for the deliberations over the next few days and for the stay in Goa.

§. **PRESENTATION OF MEMENTOES**

Rear Admiral Rao presented mementoes to the Chief Guest, to the NIOHC Chairman, to the IHB President, and to Rear Admiral S Vadgaonkar, Flag Officer Goa Area. Rear Admiral Moncrieff presented mementoes to the Chief Guest and to Admiral Rao.

§. **VOTE OF THANKS BY OFFICER-IN-CHARGE, NATIONAL HYDROGRAPHIC SCHOOL, GOA**

Commodore Nair thanked the Admirals for taking the time to participate in these opening formalities and thanked Admiral Moncrieff for attending to chair the meeting in Goa.

4. **ADMINISTRATIVE ARRANGEMENTS**

Administrative Arrangements were described to participants.

CONTEXT FOR 8TH NIOHC BUSINESS

5. **ADOPTION OF THE AGENDA**

The agenda circulated to Members by 8th NIOHC/Letter 4, was adopted, with the addition of a topic proposed by India, “Mauritius Membership of NIOHC”, discussed under agenda item 7.

6. **REVIEW OF ACTION LIST FROM 7TH NIOHC MEETING**

The Action List from 7th NIOHC meeting, most recently circulated to Members as 8th NIOHC/Letter 3 Annex C, was reviewed by the meeting. With the Chair leading the review, Member States confirmed the status of actions and provided update on any on-going actions.

Action Number	Action	Status
6.1	NIOHC Secretary to amend Statutes to reflect the meeting’s decision to permit Associate Members to host NIOHC meetings.	Complete
6.2	IHB to circulate revised Statutes for signing by MS	Circulation of Statutes complete. Some countries yet to sign. Amend to action on IHB to obtain remaining signatures
7.1	MS urged to respond to CL07-2007 dated 19 Jan 07	NIOHC response rate was 64%. Keep open. Chair took opportunity to remind MS of the importance of responding to IHO CLs. In this case, IHB President personally has to present evidence to IMO. To do this effectively, he needs a clear view of IHO MS views.

Action Number	Action	Status
8.1	All MS to confirm to Chairman that they have plans in place to respond to any future emergencies in accordance with IHO CL89/2005	Responses received. Cover further under agenda item 10.
8.2	Within the next 6 months, Chair to request confirmation that points of contact in event of emergencies remain able to provide information required by IHO CL89/2005 within 72hrs of the request being made	Cover further under agenda item 10.
9.1	IHB to prepare information pack for new IHO Members regarding what is expected of Member States and the role of related organisations	Complete. IHB have information which they revise to address particular enquiries. The IHO website (www.iho.int) is a useful source of information.
10.1	MS to update S-55 database at least on an annual basis	MS/IHB to report on action status Some updates since last meeting. To be covered further under agenda item 13. S-55 updates to be collated from National Reports.
11.1	MS to make contact with their country's representative responsible for implementation of GMDSS to confirm effective coverage and communication with NAVAREA coordinator	MS to report on action status. Oman reported GMDSS organization is being formed and will promulgate soon. To be covered under agenda item 14.
11.2	India to investigate progress on the setting up of a NAVTEX stations in the Andaman Islands (Port Blair), Sri Lanka and Kenya (Mombasa)	India reported that NAVTEX station in Andamans unlikely to happen. Action to be closed.
12.1	MS to provide details to India on the progress of their INT Chart production.	Cover under agenda item 15.
12.2	India to produce a status report regarding INT Chart production in area J	Cover under agenda item 15.
12.3	UK to provide advice re assistance to Bangladesh in the production of their INT charts	Complete.
13a.1	UK to supply copies to MS of ENC scheme, key routes and main ports diagrams	Complete
13d.1	UK to provide IHB with draft proposal in respect of ENC awareness training to be included in Cat A and Cat B syllabus	Complete
13d.2	MS to communicate with their maritime authorities to provide guidance to mariners as to what constitutes an official ENC and carriage compliance as laid down in SOLAS V, WEND and also using the mariners guide provided jointly by IC ENC and PRIMAR-STAVANGER	Complete. Publication "Facts about Electronic Charts and Carriage Requirements" is proposed to be taken into IHO series (IHO CL 16/2008 refers)
14.1	Pakistan to confirm lead role in Regional Survey Team prototype operation	Pakistan confirmed lead role. Action to complete survey still open. Consider under agenda item 17.a.
14.2	India to confirm 8 Category A hydrography and 9 Category B hydrography places available in 2008	Complete.

Action Number	Action	Status
14.3	MS to report availability of lecturers for in-region MBES Course, and any costs e.g. travel and subsistence	Complete. Course has been held IOC. Further course to be held in November 2008 – IHO CL to be issued shortly. <i>Post meeting note – IHO CL 38/2008, dated 21 April 2008</i>
14.4	NIOHC bids to be forwarded to Chairman CBC	Complete. Consider further under agenda item 17.
15.1	MS to write to the Chairman, after considering the criteria and consulting with any appropriate MS government organisations, to register interest and be considered for one of two places representing the NIOHC region on the IHO council	An important matter – to be completed at 8 th NIOHC, under agenda item 18.
16.1	MS to contact IHB via letter, with ideas and information about their plans to celebrate World Hydrography Day.	Complete for 2007. Consider for 2008 under agenda item 17
16.2	IHB to co-ordinate the receipt of information from NIOHC MS and to promote any activities.	Complete for 2007. Consider for 2008 under agenda item 17
16.3	IHB to issue CL seeking information on national survey ship activity on World Hydrography Day.	Complete for 2007.
17.1	Presentation to be given by France, Germany and UK to update the NIOHC on developments on SDI developments in Europe.	To be completed at 8 th NIOHC, under agenda item 19.
19.1	UK/India to discuss date of next meeting and advise MS.	Complete

Chairman noted that it was gratifying to see a number of the actions had been completed.

7. NIOHC STATUTES

7.a. Signatures

As noted above under review of 7th NIOHC Action 6.2, IHB will follow up on those signatures which are still outstanding.

7.b. Mauritius Membership of NIOHC

India had received letter from Mauritius indicating its wish to join the NIOHC, as agreed recently by the Mauritius Cabinet. Although Mauritius is already a member of the Southern African and Islands Hydrographic Commission (SAIHC), it considered that joining NIOHC would benefit Mauritius in terms of mutual exchange of hydrographic products and services for marine safety; exchange of technical, personnel and training to develop regional expertise; and promotion of electronic navigational services. It was agreed that Mauritius would benefit from additional membership of NIOHC. Chair to invite Mauritius to join NIOHC and to attend the next NIOHC meeting. IHB would subsequently invite them to sign the Statutes.

Oman updated the meeting on the progress of their application to become an Associate Member of NIOHC. The Ministry of Transport has undergone restructuring and should process the application soon. Oman will ensure NIOHC Chairman is informed when consideration of the application has been completed.

<u>ACTION 7.1</u>	IHB to complete task of getting MS to sign revised Statutes
<u>ACTION 7.2</u>	Chair to invite Mauritius to attend 9 th NIOHC
<u>ACTION 7.3</u>	Chair to invite Mauritius to join NIOHC and sign Statutes

8TH NIOHC BUSINESS

8. REPORT BY NIOHC CHAIRMAN

Chair reported that he was charged under the IHO Work Programme to organize, prepare and conduct annual meetings, reporting the outcome to its members and the IHB, and to follow-up the coordination required to execute the action lists agreed. He noted that the important issues are included in the agenda. He would make his report and comment on the issues as he worked through the agenda

9. REPORT BY IHB

The IHB President provided a comprehensive and strategic view of activities across the IHO since the last NIOHC meeting. Related input and discussions are included in relevant section.

- XVIIth IHC was the most important event. It approved amendments to the Basic Documents (General Regulations, Financial Regulations, and Rules of Procedure of the main bodies).
- Ratification. Main issue now is the low level of approvals to the Protocol of Amendments to the Convention. Only eighteen Member States have completed the approvals process, since the Protocol was sent out by the Monegasque Government in July 2005 via diplomatic channels to the Governments who are parties to the Convention (IHO CLs 71/2005 and 1/2008 refer). At this rate, with over fifty approvals required, it will take another 10-15 years to achieve. Member States which have approved so far are: Australia, Cuba, Cyprus, Denmark, Estonia, Finland, France, Germany, Japan, Korea, Mexico, Morocco, Netherlands, Norway, Pakistan, Sweden, Tunisia, UK. He would appreciate the opportunity to see where each NIOHC Member State is in the process. XVIIth IHC Decision 23 strongly encouraged Member States to undertake all steps necessary to approve the Protocol as soon as possible and instructed the IHB President to raise the priority of approvals through diplomatic channels. He encouraged Member States to expedite process, noting the recent example of Canada having to provide support in their Parliament. IHB is happy to provide support to Member States where needed: IHB President is able to approach governments at a high level, if required. India noted that, within NIOHC, only France, Pakistan, and UK had completed ratification. Members need to take it seriously.
- Pending Member States. Currently three applications for IHO membership are awaiting deposit of the necessary number of approvals from Member States: Cameroon, Sierra Leone and Montenegro. Some NIOHC Member States have yet to complete their approval of these applications and he would discuss with relevant parties in the meeting margins.
- Suriname, suspended since 1991, rejoined IHO in December 2007, and its rights and obligations have been reinstated.
- Two new committees. The IHC approved Rules of Procedure for the two new Committees (Hydrographic Services and Standards Committee (HSSC) and Inter Regional Coordination Committee (IRCC)), effective 1 January 2009. The documents have been harmonized and placed on the IHO website.

Three new Working Groups were established by IHC:

- Hydrography and Cartography in Inland Waters Working Group (HCIWWG)
- Marine Spatial Data Infrastructure Working Group (MSDIWG)

Both have started work and will provide report to IHB by October 2008, to be circulated to MS prior to 4th Extraordinary International Hydrographic Conference (EIHC), in June 2009.

- IHO Strategic Plan Working Group (ISPWG), chaired by Ingénieur Général de l'Armement Gilles Bessero (France), with two Vice Chairs, Captain Floor De Haan (Netherlands) and Captain Wesley Cavalheiro (Brazil), is progressing its work in manageable sections. The chair group and a number of others are doing good work. It will meet adjacent to WEND and report to IHB for circulation to Member States. NIOHC is represented by India, and UK participates as a Member State in its own right.

These three working groups will provide the main topics for discussion at 4th EIHC (IHO CL 88/2007 refers). Member States need to advise IHB, to obtain approval of other Member States, if they wish to propose any other matters be included at EIHC.

- Extraordinary WEND (X-WEND), convened in October 2007 to find ways to solve the provision of ENC's, was well attended. The IHB is to work with the WEND Task Group members to take forward. Draft of IHO papers to IMO's NAV 54 meeting have been developed and circulated to IHO Member States for comment by IHO CL 33/2008. IHB had worked closely with UKHO in preparing the papers entitled "Evaluation of Electronic Navigational Chart (ENC) Availability" and "Development of a comprehensive online catalogue of available official charts". *Post meeting note – feedback on CL 33/2008 circulated by IHO CL 42/2008. Papers have been issued by IMO as NAV 54/14/5 and 54/14/6 respectively.*

Chair observed that X-WEND had catalyzed member states. UK at that meeting outlined Admiralty Vector Chart Service (AVCS), taking ENC's from three sources: RENC's, bilaterally non-RENC's, production of ENC's for countries not yet ready to produce. He noted that countries do not need to produce ENC's for themselves: other countries can help. UK will withdraw cells produced for others if/when they produce cells themselves.

- IALA. IHB has good cooperation with IMO and IALA on e-Navigation and thanked France for representing IHO at meeting in Saint-Germain-en-Laye. E-navigation project by IMO will take time to finalize. IHO, IMO and IALA are identifying strategy.
- IMO. Recent activities have related to COMSAR. NAV 54 will be the next focus - in particular, the mandatory carriage discussions, the need to expedite ENC production to meet IMO requirements of coverage and availability, and to report on ENC availability and the status of the online ENC catalogue to NAV 54.

Chair clarified the fact that the IHB President personally has to present evidence to IMO's NAV 54 and make case on Members behalf. To do this effectively, he needs a clear view of IHO MS views. All signed up at the IHC (Decisions 20 and 21) to get ENC's sorted. Need to get on with now to get through IMO's slow process. If not nailed this year, could be pushed back a couple of years. He illustrated the case of UK, where UKHO is the technical adviser to UK's voting member at IMO, that is UK's Maritime and Coastguard Agency (MCA). Other member states should similarly make their voting members aware. If have any reservations, then let IHB President know and make sure voting members are briefed and persuaded.

France highlighted the fact that only 31 out of 80 had responded to IHO CL 10/2008 (IHO Online Catalogue – Coastal States' Recommended Paper Charts), including a number from NIOHC. France has experience of working on Chinese and Vietnamese nautical publications and can understand the difficulty, for these countries, to translate their catalogues. A number of countries have produced ENC's but not released them – where are they? These catalogues are needed before NAV 54. Chair added that getting there but there is still a need for integration. IHB can only be as good as the information it receives. Chair supported France; it is important to get ENC's available - work with another HO; work with each other in region, hear from others, to deliver ENC's. India similarly endorsed the need to be proactive and to take the matter of ENC availability more seriously. If a country cannot produce ENC's in the time-scale, admit it, and others such as India or UK will be happy to complete.

- EU. The Directing Committee is in discussion with the EU on the funding of IHO projects, raising awareness. France has been working on the matter and IHB President held a meeting

at the end of January with EU, France, Denmark, and Germany. The draft was sent out to MS and the MOU has now been sent to France to get European approval.

- IOC works complements IHO, visiting tsunami areas discussing problems, mapping, funding, training.
- Capacity Building Committee. IHB (Hugo Gorziglia) has been working hard to promote issues, workshops etc. MSI workshop recently held in Cadiz for MBSHC. Now organizing with India in National Hydrographic School in November, co-funded by IHB and India.
- Two projects developing:
 - Malacca Strait. Technical working group and steering committee meeting in Kuala Lumpur in that week, to finalize technical part of project;
 - Mozambique Channel. Meeting scheduled for following week in Cape Town to discuss project progress. Captain Abri Kampfner will represent IHB. *Post meeting note – postponed to May*
- Two further issues:
 - World Hydrography Day – to be covered under agenda item 17;
 - 5th ABLOS Conference in October will cover “Difficulties in Implementing the Provisions of UNCLOS”.

<u>ACTION 9.1</u>	MS urged to respond to CL 07/2007 dated 19 Jan 07, and subsequent CLs, including CL 33/2008, on ENC coverage, consistency, etc, to inform IHO position at IMO NAV 54.
<u>ACTION 9.2</u>	MS to pursue completion of their country’s ratification of the amended IHO Convention.
<u>ACTION 9.3</u>	MS to communicate with their voting representative (national maritime authority) at IMO NAV 54 to brief them, using IHO CL 33/2008, to support IHO on the importance of ENC issues.

10. NIOHC RESPONSE TO DISASTERS

IHO Technical Resolution K4.5 refers. Chair outlined previous NIOHC discussions on tsunami issues, lessons identified and learned. The region is vulnerable and he queried whether everyone was comfortable that they are in a better position to deal with another such event. The following updates on activities were provided: Sri Lanka outlined progress on acquisition of a survey boat. Germany had completed its part of the tsunami assistance programme. France reported security issues had prevented their part. UK proposals involving Gardline survey and provision of a replacement survey vessel were progressing. Sri Lanka reported that they were still looking to receive assistance. The French government had promised to provide one month’s survey effort but delayed by security issues. France reiterated that the offer is still on the table, but the timing and security situation need to be right. France needs about one year’s notice so Sri Lanka needs to confirm as soon as possible.

India reported that warning system using six buoys had been established for tsunami, in case of a recurrence. Protection from tsunami by building works is very expensive. Warning is improving day by day.

NIOHC focal points have been established but there is need to confirm that this is 24/7 contact. Some members have their procedures in place. Some were not able to report that national; procedures were in place in the time scale. All to confirm the current status of their contacts and procedures as provided in Annex B to 8th NIOHC meeting report. Chairman to run check exercise for response within 72 hours when all have confirmed their procedures are in place

Chair proposed that the next NIOHC meeting should include an extended session on disaster recovery to share experience, bringing in US experience from Katrina, and contribution by hydrographers. He had seen Ecuador's tsunami 24 hour monitoring and its connection with the HO. Session to include tactical procedures, cross connections, sharing experiences, rebuilding, disaster response phase, working with ships, etc. It was agreed that the session would cover the organization in the NIOHC region, what experiences are, what needs to be updated, to be led by India, with US contributions. Chair observed that that sort of thing gets government attention, pointing out to government what hydrography can do, and the leading role it plays.

Bangladesh observed that it would be the country affected first in the region and there was discussion of Chittagong global sea level gauge, compatibility issues with met department, need for real time information, requirement for assistance, ongoing work involving France and IOC, the need to link with land mapping, and the potential value of LIDAR surveys.

<u>ACTION 10.1</u>	Chair to provide summary of NIOHC disaster response contacts and plans, for review by MS, with minutes of 8 th NIOHC
<u>ACTION 10.2</u>	Within the next 6 months, Chair to request confirmation that points of contact in event of emergencies remain able to provide information required by IHO CL89/2005 within 72hrs of the request being made
<u>ACTION 10.3</u>	Agenda 9 th NIOHC to include session (2 hours) on disaster management, experiences, etc

11. COOPERATION WITH IHO MEMBER STATES, NON-MEMBER STATES, NEIGHBOURING RHCs, INTERNATIONAL ORGANIZATIONS, PERSGA, AND INDUSTRY

Neighbouring RHCs. In view of the increasing importance of RHCs in the revised IHO organization, IHB had proposed inclusion of cooperation with neighbouring RHCs in the agenda. The RHCs adjacent to NIOHC are RSAHC, EAHC, SAIHC, SWPHC, and MBSHC (just). Pakistan, Chair of RSAHC, is present in this meeting. Chair reported he had invited Parry Oei from Singapore, as Chair of EAHC, to this meeting, but he was unable to attend on this occasion. Next year will arrange for each Chair to attend other's meeting. Chair noted that NIOHC has only limited connection with SWPHC and MBSHC.

PERSGA. Chair had received a letter from PERSGA Secretary General, Professor Ziad Abu-Gharrah, stating that PERSGA is very keen to strengthen its partnership with NIOHC and look ahead to further productive collaborations, following Jeddah Technical Workshop. To this end, PERSGA is interested in signing MOU with NIOHC to facilitate several collaborative activities that meet mutual interests, particularly those focussing on capacity building and reduction of navigation risks. Chair to ensure that PERSGA remains informed of NIOHC activities, and that the proposal for a MOU be further considered. Meeting endorsed value of cooperation.

IOC. Provide assistance under capacity building, including multi beam courses. Experts at the workshop in India could talk of their experiences and provide additional detail to the benefit of trainees. MOU already signed between IHO and IOC. India reported that the oceanographic research institution is brought into the courses run at National Hydrographic School in Goa.

12. NATIONAL REPORTS

National Reports were submitted in advance of the meeting by all participating member states and placed on the IHO website. They provided a useful opportunity to catch up on the developments and activities of others in the region. Chair invited each participating state (Bangladesh, France, India, Myanmar, Oman, Pakistan, Saudi Arabia, Sri Lanka, Thailand, United Kingdom, United States) to highlight the important elements from their National Reports. Particular points were discussed after each report. Discussion included requirements for, and

offers of, training; technical issues relating to LIDAR surveys; and surveys carried out as bilateral capacity building initiatives.

13. REVIEW OF STATUS OF HYDROGRAPHIC SURVEYING AND NAUTICAL CHARTING IN NORTH INDIAN OCEAN REGION – IHO Special Publication S-55

S-55's purpose is to provide a high level view of the state of survey around the world, and provides a useful tool in the development of policy and strategy. IHO Work Programme Task 2.2.2 charges RHCs and the CBC, to keep S-55 "Status of Hydrographic Surveying and Nautical Charting Worldwide" updated, to gather missing data and to process information received. National Reports to 8th NIOHC include updates to S-55. IHB have already updated many of the NIOHC entries from National reports provided to this meeting; that task needs to be completed.

France noted that, as an INT Chart Producer, they receive only a fraction of the surveys carried out in the area of those charts. India queried why Andaman Islands are separate from mainland India, whilst Lakshadweep Islands are not. It is evidence in S-55 which is pertinent to the definition and prioritisation of bids to IHOCBC

President IHB highlighted the great importance of keeping S-55 entries up-to-date. It is important for the IMO Voluntary Audit Scheme which goes to IMO Member States to audit their efficiency and establish their cartographic and hydrographic capability for SOLAS Chapter V. The best way IHB can support IMO is to provide standardized structure so that when auditors go, IHB give them the latest information from S-55 to take with them. IHO CL 86/2004 describes the use of S-55 within IMO.

Chair to write to MS on importance of completion and updating of S-55. See NIOHC S-55 update status of entries at Annex C.

<u>ACTION 13.1</u>	MS to update S-55 database at least on an annual basis
<u>ACTION 13.2</u>	IHB to collate S-55 extracts from National Reports
<u>ACTION 13.3</u>	Chair to write to MS on importance of completion and updating of S-55

14. PROMULGATION OF RADIO NAVIGATIONAL WARNINGS AND MSI WITHIN NAVAREA VIII AREA; IMPLEMENTATION OF GMDSS

India, as NAVAREA VIII Co-ordinator, gave an informative presentation which is provided on the IHO website. France commented on the excellent coordination and professional setup.

As reported under agenda item 6, at 7th NIOHC action 11.2, the previous proposal to establish a NAVTEX station in the Andaman Islands is unlikely to happen. India confirmed that it will not present a problem: they are 100% sure that there are no gaps. In response to question from Chair, India explained that the NAVAREA coordinators have checks and balances in the organization. The three organizations involved: National Hydrographic Office, Ministry of Shipping, and Coastguard, all meet for seminars etc.

CPRNW/MSI Workshop, October 2008. Discussion of MSI training was brought forward from agenda item 17.e. Several IHO Commission on Promulgation of Radio Navigational Warnings (CPRNW) Maritime Safety Information (MSI) training courses have been completed. The value of these courses is illustrated by that held in the Caribbean, where the CPRNW Chairman has already reported a marked improvement in the handling of MSI. Workshop to be held in India. UK offered to provide a lecturer, providing continuity with the previous MSI workshops. Chair emphasized the importance of ensuring the right staff attend the course, that is, those who actual handle MSI matters.

IHB President commented that IHO has CPRNW and Chairmanship of Peter Doherty. This operates closely with IMO, which examines issues which have been discussed by, and have the support of, CPRNW. IMO's COMSAR has been looking at extending NAVAREAs to cover the Arctic: Canada, Norway and Russian Federation. Some problems with limits. Correspondence Group comprising IHO, IMO and WMO, has been set up to amend the three manuals. NAVTEX is the main issue for promulgation of Navigational Warnings until INMARSAT change their satellites to cover these areas. COMSAR has approved and documents will go to Maritime Safety Committee (May 08) for endorsement.

<u>ACTION 14.1</u>	UK to provide lecturer for CPRNW MSI Workshop in India in November 2008
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15. PROGRESS ON IMPLEMENTATION OF THE INT CHART SCHEME

India, as INT Chart Coordinator for Region J, presented a summary report of the allocation of charts. It is provided as Annex D to this report.

<u>ACTION 15.1</u>	MS to provide details to India on the progress of their INT Chart production
<u>ACTION 15.2</u>	India to produce a status report regarding INT chart production in area J and advise IHB
<u>ACTION 15.3</u>	UK to report back to India, as INT chart coordinator, on four charts highlighted in presentation

16. ENC ISSUES

XVIIth IHC resolved that IHO Member States should adhere and comply with the IHO's World-wide Electronic Navigational Database (WEND) principles in order to achieve adequate coverage, availability, consistency and quality of ENCs by 2010; and that the IHO strongly supports the efforts by IMO to introduce mandatory carriage requirements for ECDIS, emphasizing that a significant coverage of ENCs is already in place and will be further improved by 2010, as indicated in the DNV report (NAV 53/INF.3) and supported by IHO assessments, and that acceptance of mandatory carriage requirements will further accelerate the production of ENCs. A number of nations are now working to improve the quality and consistency of ENCs, but recognise that this is a very significant task that will take a considerable time to fully achieve.

16.a. Update on identification of key shipping routes and ports within region

Chair provided an update on activities to address the requirement, identified by the WEND Task Group in 2004, for RHCs to identify key shipping routes and ports within region, identify charts covering these routes and ports that should be captured as ENCs, identify producer nations for the ENCs and arrange for their production.

He reported that, since 7th NIOHC, UK has worked to refine its identification of major ports and routes using the latest shipping statistics. The priority has been to cover the largest 800 ports and the routes between them but with an intent to increase this to 2000 ports and routes within 18 months. The results of this work were shared with IHO MS at the X-WEND meeting in October 2007 and an agreement was reached on the definition of "adequate ENC coverage", that is, 'those ENCs required to enable safe port to port navigation for international shipping that correspond to the paper chart coverage for these ports and the routes between' on the basis that 90% of world trade conducted between approximately 800 ports.

36 of the world's top 800 ports lie within the NIOHC region, of which 90% are currently covered. UK's newly launched AVCS service virtually completes the remaining 10% of ports. The diagram of key shipping routes, previously shown at 7th NIOHC, was displayed to aid

discussion, and is included on IHO website.

16.b. ENC scheme and time-scale for production

Chair displayed UK's latest diagrams of ENC cover, which have been included on IHO website. No further work is required on this at present, sufficient having been accomplished to guide MS priorities of ENC production. India commented that some ENCs require coordination with neighbouring HOs, and could result in delay.

Chair noted that UK welcomes feedback on the diagrams, which are included on the IHO website. Member States reminded to inform the WEND TG and/or IHB of any future coverage plans. Chair proposed that NIOHC aim to be the first RHC with 100% ENC coverage.

16.c. Identification of producer nations

It has been agreed that wherever possible ENCs should be based on INT charts and the producer nations for the ENCs should be the same as the producer nations for the corresponding INT charts.

16.d. Assistance with ENC production

Member States without adequate capacity to produce ENCs at present, should seek assistance from nations offering assistance (IHO CL 47/2003 refers). Chair reiterated that if need help, then ask Member States in region. UK and France also happy to assist, before go elsewhere for assistance.

16.e. ENC distribution (including RENCs)

Chair strongly encouraged nations to make their data available through multiple integrated services as required by the WEND principles. The simplest way for this to occur is for them to join a RENC; the other is to negotiate separate agreements with the existing data servers – i.e. Primar Stavanger (as an ENC distributor rather than a RENC) and UKHO.

16.f. Inconsistent Allocation of Navigation Purpose codes to small-scale ENCs. Paper CHRIS19-06.1E "Present status of small-scale ENC coverage with respect to the allocation of cells to usage bands 1 (Overview) and 2 (General)" (IHB letter 21 November 2007)

Chair reported that in response to the IHO CHRIS paper and IHB letter, UK has reviewed GB cells currently on issue and is making changes to its ENC schemes in several areas (especially in national waters) to bring them into alignment with the IHO recommendations. It will have adequate cover to meet NAV 54.

16.g. NAV 54, carriage of ECDIS, e-navigation

Chair considered that demonstrating the availability of a global coverage of good quality ENCs at a reasonable price is key to the successful conclusion of discussions on mandatory carriage of ECDIS at NAV54 in July and delivery of the WEND aim. See earlier discussion under agenda 9. UK's work, with the co-operation of other MS, over the last year to develop and launch its new integrated ENC service, was done with this in mind.

<u>ACTION 16.1</u> UK to supply copies to MS of ENC scheme, key routes and main ports diagrams
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17. CAPACITY BUILDING

The IHO capacity building objective covers assessment of the hydrographic surveying, nautical charting and nautical information status of nations, including identification of regional requirements, and review of options for capacity building assistance and training from Capacity

Building Committee (CBC) and other sources. India noted the different routes for provision of capacity building, including bilateral government to government and CB Fund.

17.a. Outcomes from 5th CBC, June 2007

The outcomes of 5th CBC were circulated in IHO CL 77/2007. NIOHC submissions approved included the Technical Workshop held in Jeddah in November 2007 (agenda item 17.b), MBES Course, and the Joint Survey Project in the Seychelles. The latter has taken some time to pull together, but the logistics are well advanced and general approval of Seychelles Ministry of Affairs has been obtained. A suitable time to execute the survey needs to be finalized. The survey team will be led by Pakistan (Fiaz Hussain), and includes US and Seychelles staff, details of the latter to be confirmed. *Post meeting note – the 7th NIOHC meeting report included the requirement for the team to produce a guidance document for use in future joint projects. This has been included as an additional 8th NIOHC action.*

17.b. Report on Phase 1 Technical Workshop, Jeddah, November 2007

Presentations from the Phase 1 Technical Workshop held in Jeddah in November 2007 have been placed on the IHO website.

17.c. Submissions to 6th CBC, June 2008

The Chair highlighted the importance of participants defining their requirements during this agenda item by contributing to the discussion and detailing their specific requirements. Useful discussions centred on training requirements, courses available, and the options for provision of on-the-job training. In particular, interested members should respond to an imminent IHO CL on IHO Multibeam Course at the National Hydrographic School, Goa.

Chair emphasized the need to have particular staff in mind when requesting training places. France agreed and reminded the meeting of the importance of ensuring that the right students attend the right training courses. Students need to have sufficient basic knowledge to be able to gain from the courses they attend and, similarly, need to be able to consolidate the knowledge gained by using the skills acquired on return from the course, to develop experience. The list compiled is provided as Annex E to this report.

17.d. World Hydrography Day

The main objective of World Hydrography Day (21 June) is to raise awareness of the importance of hydrography, and ensure that the need for, and responsibilities of, hydrographic offices are properly understood, particularly in government and in the user community. It was noted that the theme for 2008 is the importance of capacity building within the international hydrographic community.

Chair began the discussion by outlining UK's 2008 plans, which include: a week's exhibition in the Ministry of Defence (MoD) to get the message up to MoD, an exhibition in Taunton to show what one of the town's biggest employers does, and an evening reception on 18th June at Trinity House in London with guests including representatives from countries benefiting from UKHO's training and capacity building expertise. UK will also be working on an educational pack for schools, relevant to UK curriculums, to raise awareness, with potential for involvement, now and in future.

Chair urged Members to organize activities and to provide details to IHB, to allow them to use the information to brief others on IHO activities with a view to influencing. India has arranged workshops and seminars in the three commands (Dehra Dun, Delhi, Goa), school children visits to ships, and a gala event for all staff and some friends in Dehra Dun. ENC/ECDIS/WECDIS. US is organizing hydro Olympics with events such as setting up tide stations and presentations within NOAA to raise awareness of colleagues. France has continued with EU involvement with a joint celebration 23-24 June with EU and EMSA. Consider World Hydrography Day a good opportunity to get visibility regionally. Oman last year

placed articles in newspapers, both Arabic and English language, about ENC's and received many consequential enquiries. They have yet to formulate plans for 2008.

IHB President reported that IHB had established webpage on which to include material for use of Member States. Posters to be available on it soon. If Member States need anything specific, IHB will try to provide. In Monaco, the IHB will be doing interviews, local press, local schools visiting IHB, and hosting a reception for Prince Albert, local dignitaries and maritime authorities

The IHB has talked with the IMO Secretariat with a view to a joint celebration in 2009. Theme is likely to be: Cooperation of international organizations in safety of navigation and protection of the marine environment. The decision will be taken in June 2008.

17.e. CPRNW/MSI Workshop, October 2008

Discussed under agenda item 14.

17.f. Provision of Regional Staff Officers for Capacity Building Effort

France highlighted the need identified within some RHCs for assistance with capacity building matters, ideally from within the region. Subsequent to UK's proposal (PRO 18) to XVIIth IHC, following its experience of employing Capt Barritt, which became XVIIth IHC Decision 17, CBC had proposed that an additional paragraph be incorporated in Administrative Resolution T1.3. Useful discussion concluded that, in the case of the NIOHC, the NIOHC CBC representative, Capt Badhwar (India), will take on any necessary coordination.

<u>ACTION 17.1</u>	Regional Survey Team prototype operation in Seychelles joint survey to be completed and guidance document for future projects to be provided to 9 th NIOHC.
<u>ACTION 17.2</u>	Interested MS to respond to imminent IHO CL on IHO Multibeam Course at the National Hydrographic School, Goa
<u>ACTION 17.3</u>	MS to maximize the opportunity presented by World Hydrography Day to raise profile of hydrography, and to contact IHB via letter, with ideas and information about their plans to celebrate World Hydrography Day.
<u>ACTION 17.4</u>	IHB to co-ordinate the receipt of information from NIOHC MS and to promote any activities.
<u>ACTION 17.5</u>	India representative on CBC to take on elements of NIOHC CBC staff officer role
<u>ACTION 17.6</u>	Chair to write to Chair CBC to advise India's role and put in submission to CBC

18. IHO STRATEGIC ISSUES

18.a. Procedures for Selection of NIOHC Members to the Council

The IHB had requested RHC Chairmen (letter dated 31st August 2005) ensure their RHC develop its procedures for selection of their representatives to Council. NIOHC had discussed in its 6th and 7th meetings but had reached no decision. 7th NIOHC action 15.1 was placed on all member states, to write to the Chairman, after considering the criteria and consulting with any appropriate MS government organisations, to register interest and be considered for one of two places representing the NIOHC region on the IHO Council. Chair had received no proposals from members and had already warned Members that a decision must be taken at this meeting. He emphasized the importance of the role.

Chair believed it better to have representatives who volunteered rather than were pressed. India, currently NIOHC representative on ISPWG, volunteered to be one of the two NIOHC representatives on Council. Whilst wishing to participate in Council, UK prefers to give RHC

members, in region, the opportunity to become Council members, and expects instead to get one of the ten places allocated on the basis of hydrographic interest (tonnage criteria).

With UK and India already committed to Council membership, the second volunteer for NIOHC would need to come from Bangladesh, Egypt (not present), Myanmar, Saudi Arabia, Sri Lanka and Thailand. Saudi Arabia volunteered and it was agreed. France, as the representative for Djibouti, expressed its support. The Chair similarly noted the appropriateness of Saudi Arabia.

18.b. Progress of Approval of the Amendments to the IHO Convention by Member States

Summarized in IHO CL 1/2008 and discussed under agenda item 9.

18.c. Work of the IHO Strategic Plan Working Group (ISPWG)

Discussed under agenda item 9.

<u>ACTION 18.1</u> India and Saudi Arabia to represent NIOHC on Council

<u>ACTION 18.2</u> Chair to write to IHB to advise decision re NIOHC Council representation

19. PROGRESS ON MARINE SDI DEVELOPMENT AND LAND SEA DATA INTEGRATION

In accordance with 7th NIOHC Action 17.1, UK and France gave a joint presentation to update the NIOHC on Spatial Data Infrastructure (SDI) developments in Europe.

In introducing the presentation, Chair drew attention to the fact that, whilst hydrographic data has until recently been used almost exclusively to meet the needs of safety of navigation, the significance of large volumes of such data has now become evident for a range of other applications. Technological advances and the establishment of SDI provide the opportunity to offer marine data to a multitude of users, including academic, research and government interest, to assist them in decision making on a local, regional, and global basis. The IHO is well placed to assist the development of this work globally and should be able to capitalize on being first in the field. The presentation is provided on the IHO website.

<u>ACTION 19.1</u> SDI presentation by UK and France to be posted on IHB website
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20. ANY OTHER BUSINESS

20.a. IHO Certification for Hydrographic Products

Bangladesh noted that there are various hydrographic products available in the market claiming to meet IHO specifications. For countries with less experience in digital hydrographic survey, it is difficult to ascertain the quality of such products and decide on the most suitable option.

The useful discussion concluded that the best method would be to take advice from those using equipment already. Bangladesh, and others requiring similar assistance, should write to France, India, UK and US, all of whom would be happy to respond in writing with details of what they are using for particular purposes, with follow-up discussion if required. France noted the importance of detailing the requirement and observed that acquiring good kit doesn't automatically mean good survey – need to ensure the capability to use equipment procured.

20.b. Pakistan membership of INT Region J

Pakistan queried whether the basis for full membership of Area J was territorial or coverage. IHB commented that the IRCC will be concerned with cooperation between RHCs.

21. REVIEW OF 8TH NIOHC ACTIONS

Decisions taken during the first day were reviewed at the beginning of the second day, in accordance with the Statutes. All decisions, as incorporated in the action list at Annex A, were reviewed at the end of the meeting, and deadlines assigned.

NEXT MEETING

22. ELECTION OF CHAIR AND VICE CHAIR

Chair requested volunteers to take over the NIOHC Chairmanship. UK had held the role for the last four years and India for the first four. No other states wished to volunteer for the role. India agreed to take on the Chairman's role, with Saudi Arabia as Vice Chair.

23. VENUE AND DATE OF NEXT MEETING

The 9th NIOHC meeting will be held in 2009. The offer made by Seychelles at 7th NIOHC to host the 2009 meeting, had recently been confirmed. However, as there had been personnel changes and Seychelles were not present at the meeting, Chair to contact Seychelles to explain the requirements before confirming venue. Chair to promulgate date and venue to Members. See post meeting note 2 below. Bangladesh noted the option of its arranging the 10th or 11th NIOHC meeting in Dhaka, subject to government approval. See post meeting note 3 below. US and India would be possible hosts for 2009, if required.

Post meeting note 1 – during the following visits, the possibility of holding the first RHC meeting at sea was raised for 2010.

Post meeting note 2 – Chair has confirmed that Seychelles will host the 9th NIOHC, tentatively arranged for 25th and 26th February, with participants arriving on 24th and departing on 27th.

Post meeting note 3 – If Bangladesh is to host 10th or 11th NIOHC meeting, Chair will need to forward official proposal to Bangladesh mentioning the facilities which will be needed to arrange the meeting and the assistance which may be provided by NIOHC in this respect.

ACTION 23.1 Chair to discuss venue 9th NIOHC with Seychelles

ACTION 23.2 Chair/Host to discuss date of next meeting and advise Member States

CLOSING FORMALITIES

24. CLOSING REMARKS

Chair summarized that the meeting had debated and resolved a number of regional issues. It is important information flow gets into IHB. He thanked participants for their contribution to the meeting, the Secretary, whose task would continue after the meeting, Admiral Maratos for his direction and guidance, Admiral Rao for hosting the meeting and his overwhelming hospitality and first class organization, asking him to pass thanks on to his staff. Admiral Rao thanked Admiral Moncrieff for his expert guidance of the meeting and Rear Admiral Abdul Rahman Mohd Al-Shehri thanked Rear Admirals Moncrieff and Rao, the Government of India, and all participants.

VISITS

The 8th NIOHC meeting concluded with informative, late afternoon, visits to view the hydrographic facilities of the National Hydrographic School (NHS), INS Jamuna and USNS Bruce C. Heezen.

8th North Indian Hydrographic Commission Meeting – 15-17 April 2008 – Goa, India
Actions List

8th NIOHC – Actions List

Annex A
to 8th NIOHC Report

8 th NIOHC Action Number	Action	Action By:	Deadline	Status
7.1	IHB to complete task of getting MS to sign revised Statutes	IHB/MS	30 Jun 08	Action in hand
7.2	Invite Mauritius to attend 9 th NIOHC meeting	Chair		
7.3	Invite Mauritius to join NIOHC and sign Statutes	Chair/IHB		
9.1	MS urged to respond to CL 07/2007 dated 19 Jan 07, and subsequent CLs, including CL 33/2008, on ENC coverage, consistency, etc, to inform IHO position at IMO NAV 54.	MS	31 May 08	
9.2	MS to pursue completion of their country's ratification of the amended IHO Convention.	MS	31 May 08	
9.3	MS to communicate with their voting representative (national maritime authority) at IMO NAV 54 to brief them, using IHO CL 33/2008, to support IHO on the importance of ENC issues.	MS	31 May 08	
10.1	Chair to provide summary of NIOHC disaster response contacts and plans, for review by MS, with minutes of 8 th NIOHC	Chair/MS	31 May 08	Complete
10.2	Within the next 6 months, Chair to request confirmation that points of contact in event of emergencies remain able to provide information required by IHO CL89/2005 within 72hrs of the request being made	NIOHC Chairman	15 Oct 08	
10.3	Agenda 9 th NIOHC to include session (2 hours) on disaster management, experiences, etc	Chair, India, US		
13.1	To update S-55 database at least on an annual basis.	MS	31 Dec 08	
13.2	S-55 extracts to be collated from National Reports	IHB	30 Apr 08	Complete.
13.3	Chair to write to MS on importance of completion and updating of S-55	Chair	15 May 08	In hand.
14.1	UK to provide lecturer for CPRNW MSI Workshop in India in November 2008	UK	30 Nov 08	In hand.
15.1	MS to provide details to India on the progress of their INT Chart production	All MS	30 Jun 08	

8th North Indian Hydrographic Commission Meeting – 15-17 April 2008 – Goa, India
Actions List

15.2	India to produce a status report regarding INT Chart production in area J and advise IHB	India	31 Jul 08	
15.3	UK to report back to India, as INT Chart Coordinator, on four charts highlighted in presentation.	UK	30 Apr 08	Complete
16.1	UK to supply copies to MS of ENC scheme, key routes and main ports diagrams	UK	30 Apr 08	Complete. Provided on IHO website.
17.1	Regional Survey Team prototype operation in Seychelles joint survey to be completed and guidance document for future projects to be provided to 9 th NIOHC.			US ready to assist, Pakistan want to complete. Necessary planning and arrangements almost complete. See letter dated 23 June 2008 from CBC Chair to Seychelles.
17.2	MS to respond to imminent IHO CL on IHO Multibeam Course at the National Hydrographic School, Goa	Interested MS to IHB, copy to India	15 Aug 08	
17.3	MS to maximize the opportunity presented by World Hydrography Day to raise profile of hydrography, and to contact IHB via letter, with ideas and information about their plans to celebrate World Hydrography Day.	MS	15 May 08	
17.4	IHB to co-ordinate the receipt of information from NIOHC MS and to promote any activities.	IHB	As required by IHB	
17.5	India representative on CBC to take on elements of NIOHC CBC staff officer role	India	As required	
17.6	Chair to write to Chair CBC to advise India's role and put in submission to CBC	Chair	30 Apr 08	Complete
18.1	India and Saudi Arabia to represent NIOHC on Council, when established	India, Saudi Arabia		
18.2	Chair to write to IHB to advise decision re NIOHC Council representation	Chair	30 Apr 08	Complete
19.1	SDI presentations by UK and France to be posted on IHB website		30 Apr 08	Complete
23.1	Chair to discuss venue 9 th NIOHC with Seychelles	Chair	30 Apr 08	Complete
23.2	Chair/Host to discuss date of next meeting and advise MS.	Chair, Host	30 Jun 08	Complete

NIOHC DISASTER PLAN – LIST OF FOCAL POINTS OF CONTACT

Member State	Name	Fax	E-mail
Bangladesh	Captain Mir Imdadul Haque, (H1), psc BN	+088 02 8854270	dhydro@bangladeshnavy.org
Egypt	Commodore Ehab Talaat El-hannan	+20 3 480 2233	hydro_dept@yahoo.com
France	Ingenieur General Jean Laporte	+33 141 749425	jlaporte@shom.fr
India	Rear Admiral B.R. Rao	+91 135 2748373	incho@dataone.in
Malaysia	Captain Sahak bin Omar RMN	+603 3101 3111	rmnodc@tm.net.my
Myanmar	Commodore Maung Oo Lwin	+951 380325	hydro.navy.ygn@mptmail.net.mm
Oman	Commander Mansoor Bin Mohammed Al Kharousi	+968 24312460	nhooman@omantel.net.om
Pakistan	Cdr. Hussain Fiaz		hussain.hydro@gmail.com
Saudi Arabia	Rear Admiral Abdul Rahman Mohd Al-Shehri	+966 14 532161	hydro@gdms.gov.sa
Sri Lanka	Mr. M. A. Ariyawansa	+9411 2521699	nho@sltnet.lk
Seychelles	Lieutenant Ronny Matatiken Seychelles contact details to be updated?	+248 224665	matatiken@seychelles.sc
Thailand	Rear Admiral Prayuth Netrprapa	+66 2361 3596	hydrotech@navy.mi.th
USA	Captain John Cousins, USN	+1 228 688 5287	john.d.cousins@navy.mil
IHB	Vice Admiral Alexandros Maratos	+377 9310 8140	amaratos@ihb.mc

NIOHC DISASTER PLAN – STATUS OF PLANS

Country	Contact	Status of Plans
Bangladesh	Disaster Management Bureau (DMB) Ministry of Food and Disaster Management Disaster Management & Relief Bhaban (4th Floor) 92-93 Mohakhali C/A, Dhaka-1212 Bangladesh Tel 880-2-8859637, 880-2-59634, 880-2-59638 Fax 880-2-8851615 Email dmb@bttb.net.bd	DMB provides immediate response to all types of disasters in areas under the jurisdiction of Bangladesh. Bangladesh is facing natural disasters almost every year and DMB successfully plays active role in managing the situations.

Country	Contact	Status of Plans
Egypt	Commodore Ehab Talaat El-hannan Fax +20 3 480 2233 Email hydro_dept@yahoo.com Contact by Fax is preferred.	The necessary plans are in place.
India	Commander Ravi Nautiyal Joint Director of Hydrography (International Affairs) National Hydrographic Office 107 - A, Rajpur Road PO Box 75 Dehradun - 248 001 Uttarakhand (State) INDIA Tel 00-91-135-2747365 Fax 00-91-135-2748373	<p>As India had faced the brunt of the tsunami of Dec 04, Government of India (GoI) has since put in place a disaster management organisation which is activated from time to time. However seeing the expanse of the country and the type of natural disasters that can unfold from floods, earthquakes, tsunami etc a National Disaster Management Authority has been established under the chairmanship of the Prime Minister. The Authority has been tasked with preparing responses to various types of disaster. At present it is fine tuning the national response to tsunami and a core group has been set up to formulate guidelines for tsunami warning and mitigation. The Chief Hydrographer to the GoI is a member of this core group.</p> <p>The complete gamut of tsunami warning system in India comes under the ambit of the Ministry of Earth Sciences and the Department of Science and Technology who are in constant liaison with the IOC on this issue. Hence the Chief Hydrographer on his own cannot activate the system. The point is however noted for future reference.</p>
Malaysia	Zaharuddin Hj Mohd Maideen Head of Department Oceanography (National) Tel 03 - 31694466 (Off) Tel 012 - 5150765 (Hp) Fax 03 - 31014400 Email zahalin@hydro.gov.my	National Hydrographic Centre, Royal Malaysian Navy confirms that Malaysian Government has embarked into Tsunami Early Warning System programme and is actively upgrading and installing peripherals to support any eventualities.
Myanmar	Commodore Maung Oo Lwin Senior Hydrographer Myanmar Navy Fax +951 380325 Email hydro.navy.ygn@mptmail.net.mm	<p>Future plans for appropriate response for future disaster with the project of pilot area for coast map-IO (Myanmar) in collaboration with IHO and IOC.</p> <p>The Department of Meteorology and Hydrology(DMH) has future plan for Tsunami modelling and inundation map construction</p>
Oman		<p>For details on disaster response/management contact Mr Ahem Al Harthy of 'METSEEB'</p> <p>Tel 968 24 519 360 Fax 968 24 518 360 E-mail a.alharthy@met.gov.om</p>

Country	Contact	Status of Plans
Pakistan	Hydrographer of Pakistan Navy Naval Headquarter 11, Liaquat Barracks Karachi, Pakistan) Tel +92-021-48506151-4 Fax +92-021-9201623 Email hydropk@bol.edu.pk hydropk@paknavy.gov.pk Web www.paknavy.gov.pk/hydro	As Member State: Pakistan has requisite plan in place in case of Tsunami disaster as required by IHO Circular Letter 89/2005. As Chairman RHC: PNHD has corresponded with member states of RSAHC for the requisite information. Member states are being approached again for an early response in the light of IHO Circular Letter 89/2005. Progress will be communicated accordingly.
Saudi Arabia	National Meteorology and Environmental Center Early Warning Dept Tel 00 966 2 6530184 Fax 00 966 2 6530379	
Seychelles	Lt Ronny Matatiken Seychelles contact details to be updated?	National Disaster Committee assured Hydrographic department that the National Disaster plan would be ready by December 2007.
Sri Lanka	Ocean Observation and Emergency Centre, NARA, Mattakkuliya, Colombo 15. Contact Person: M.A. Ariyawansa Hydrographer Contact Nos: Tel 060 2135632 011 2546475 Fax 011 2521699 Email nho@sltnet.lk	Ocean Observation and Emergency Response Centre in the National Aquatic Resources Research and Development Agency (NARA) which operates around the clock. The above emergency response centre has close links with the National Disaster Management Centre (DMC) who plays a major role in ministerial level.
Thailand	National Disaster Warning Center (NDWC), Ministry of Information and Communication Technology, Rattanathibate Road, Bang Krasor, Muang District, Nonthaburi 11000 Hot line : 1860 Tel 66 2589 2497 ext. 24 Fax 66 2589 6008, 66 2589 2766 Web http://www.ndwc.or.th	<ol style="list-style-type: none"> 1. After tsunami disaster in Dec 04, NDWC was established as the national authority responsible for all disaster warnings. The Hydrographic Department, Royal Thai Navy (HDRTN) supports data and information i.e. tidal and current data, and seismic information to NDWC. 2. The tidal station at Ko Miang, the outmost station of Thai territories in the Andaman Sea, was established under the responsibilities of HDRTN. The data is transferred to HDRTN HQ via satellite. Nearby, another tidal station was also established by GLOSS and data was sent direct to Hawaii. At present, the GLOSS station is malfunctioned because it was hit by thunderbolt and no replacement has been made yet. 3. The tsunami warning towers were built in the areas hit by tsunami, the evacuation plan has been set up. The safety zones are designated. 4. There is tsunami exercise from time to time.
France		
Germany		

Country	Contact	Status of Plans
UK		
US	<p>Regional point of contact: Thomas J. Cuff Director, Far East Regional Office, Singapore, U.S. Naval Oceanographic Office Tel +65 6750-2600 Mobile +65 9138-8055 Email tom.cuff@fe.navy.mil</p> <p>NAVO Command Duty Officer is available 24 hours a day Naval Oceanographic Office, Command Duty Officer Tel +1 228-688-5200 Mobile +1 228-342-7769 Email navoceano.cdo.fct@navy.mil</p> <p>Available during normal work hours Capt John Cousins Commanding Officer, Naval Oceanographic Office 1002 Balch Blvd Stennis Space Center, MS 39522 Tel +1 228-688-4203 Mobile +1 228-493-2067 Email john.d.cousins@navy.mil</p>	<p>1. The US has an action plan in place for identifying safe navigation issues following a disaster in our waters. However, the US does not have any coastal areas falling within the jurisdiction of the NIOHC, so our initial contact would be via the USCHC, MACHC, and IHB, as appropriate.</p> <p>2. At any given time, the US Navy may have resources available in or near the NIOHC region that may be available to respond to such a crisis. Furthermore, we are willing to participate in a Regional Assessment and/or Technical Task Team following any such disaster in the Region and make our contact information available to the NIOHC Chairman for use in such a crisis. We are ready to participate in any test of the RHC's ability to assist Member States in such a crisis.</p>

IHO SPECIAL PUBLICATION S-55
UPDATE STATUS CORRECT TO 28TH APRIL 2008

Entries which have not been updated for more than two years, or have not been populated, are highlighted.

<i>Country</i>	<i>Updated</i>	<i>Note</i>
Bangladesh	19-Mar-08	
Djibouti	05-Apr-07	Entry updated by France
Egypt	–	No data
Eritrea	01-May-04	No update for four years
France Réunion et Tromelin	05-Apr-07	
India	26-Mar-08	
India Andaman Islands	–	India noted during 8 th NIOHC meeting that this entry should be deleted from S-55. Andaman Islands are covered within the main entry for India, in the same way as Lakshadweep Islands.
Jordan	16 May 07	Entry updated by UK
Maldives	16 May 07	Entry updated by UK
Mauritius	16 May 07	Entry updated by UK
Myanmar	1 Apr 08	
Oman	1 Apr 08	
Pakistan	19 Sep 07	
Saudi Arabia	30 Dec 03	No update for more than four years
Seychelles	16 May 07	Entry updated by UK
Sri Lanka	31 Mar 08	
Sudan	22 May 04	No update for four years
Thailand	1 Apr 08	
UK British Indian Ocean Territory	16 May 07	
US	N/A	
Yemen	05 Nov 04	No update for more than three years
Yemen Socotra Island	05 Nov 04	No update for more than three years

**INT CHARTS STATUS MATRIX
(AS ON 01 MAR 2008)**

OMAN RESPONSIBILITY

INT Chart Nos.	Originally Allotted	Published as of now	Balance	Total Charts	Remarks if any
749, 7170, 7172, 7173, 7015	5	3	2	5	7170-Due for publication Dec-2007 7015-Due for publication Dec-2008

PAKISTAN RESPONSIBILITY

INT Chart Nos.	Originally Allotted	As of now	Balance	Total Charts	Remarks if any
751, 7312, 7019	3	3	0	3	715 & 7312 WERE JOINT BUT Pak produced alone 7312 - Due for publication – 30 Jul 2007

THAILAND RESPONSIBILITY

INT Chart Nos.	Originally Allotted	As of now	Balance	Total Charts	Remarks if any
	5	4	1	5	INT Nos to be allotted for all

INDIA RESPONSIBILITY

INT Chart Nos.	Originally Allotted	As of now	Balance	Total Charts	Remarks if any
54	54	47	7	54	INT 756, 755, 757, 7365, 7419, 7338, 7422 to be produced

FRANCE RESPONSIBILITY

INT Chart Nos.	Originally Allotted	As of now	Balance	Total Charts	Remarks if any
7004, 7114, 7115, 7118	4	4	0	4	

BANGLADESH RESPONSIBILITY

INT Chart Nos.	Originally Allotted	As of now	Balance	Total Charts	Remarks if any
7425, 7426, 7428	4	3	1	4	

UK RESPONSIBILITY

INT Chart Nos.	Originally Allotted	As of now	Balance	Total Charts	Remarks if any
74	69	74	-5	69	703, 704, 707, 758, 7112* produced in addition

* Originally allotted to USA. But now taken over by UKHO and produced

NIOHC proposals to CBC – 16th April 2008

	Proposal	Note
From CBC5	Regional survey team Seychelles	
Postponed from CBC5	5 week ENC production course for 10-12 students to be delivered in region	
Bangladesh	2 students cartographic production Cat B 3-4 students ENC production on-job training 1 student Cat A hydro	
Offer	12 students MBES conducted 2 weeks sponsored by IOC (T&S, training) countries involved in	IOC to write with offer to participants to know names, copy to IHB and NIOHC Chair, to ensure CBC full picture
Oman	2 students on job ENC production 2 students MBES	
Myanmar	2 students ENC production 2 students cartographic production Cat B	
Saudi Arabia	2 students ENC production 2 students data management 2 students MBES	
Sri Lanka	2 students hydrography Cat A 2 students ENC	
Thailand	2 students ENC encryption	UK will provide bilaterally