



**19th North Indian Ocean Hydrographic Commission
(NIOHC) Conference
Muscat, Oman**

25 - 28 March 2019

Draft Minutes



Documents pertaining to the meeting can be found and downloaded in the NIOHC RHC page on the IHO website.

Full list of participants can be found in the List of Participation document on IHO website

Day 1

Opening

1.1 Address by the Host – Oman warmly welcomed all participants to NIOHC 19. An address was made by CRNO (Commander Royal Navy of Oman) whereby he introduced NIOHC 19s Guest of Honour, His Excellency (H.E.) Mohamed Bin Nasser Al-Rasby, Secretary General of Ministry of Defence Sultanate of Oman. This event included 150 guests representing Oman.

1.2 Keynote Address by Chairman- Rear Admiral Lowe, CBE (Chair) formally opened the NIOHC 19 and warmly welcomed all of the attendees. The Chair thanked the Oman Navy for hosting NIOHC in the magnificent city of Muscat and for all their efforts thus far in preparing for a successful conference. In addition, the Chair gave his extended thanks to H.E. Mohamed Bin Nasser Al-Rasby, Secretary General of Ministry of Defence Sultanate of Oman for attending NIOHC 19 as its Guest of honour.

The Chair delivered his keynote address stressing the focus on the “Blue Economy” noting that there is a busy and comprehensive agenda to work through in the coming days and that he looks forward fruitful discussions amongst the participants.

1.3 Opening Remarks by the IHO Director- Mustafa Iptes (IHO Director) seconded on all comments made by the chair and delivered his speech briefly describing the history of the IHO, its importance to mariners and the wider marine world. IHO Director welcomed all participants to NIOHC 19 and looked forward to a successful conference.

2 Administrative Arrangements- The Chair briefly discussed the administrative arrangements for the conference with support from the Royal Oman Navy regarding logistics, points of contact and additional information. The Chair invited all participants around the table to introduce themselves.

3 Approval of Agenda- The Chair gave an overview of the draft agenda and opened to the floor for comments. India highlighted that the whilst the agenda was comprehensive, it gave little time for social interaction. The Chair noted to Member States that this NIOHC meeting would be the last meeting before council and so this agenda reflected a number of things that needed to be discussed as well as Member States thinking about what they would like to raise at council.

The agenda was accepted by the Member States.

4 Approval of 18th NIOHC Minutes- The Chair sought approval of the floor of the 18th NIOHC minutes from delegates. There were no comments from the Member States. NIOHC 18 minutes were accepted by the Member States.

5 Review of 18th NIOHC Actions List- The Chair presented an overview of each action captured during the 18th NIOHC. The Chair noted that some action points pertained to specific items within the agenda and would be covered in more detail then.

IHO Director noted that regarding action two (Member States are encouraged to participate in IHO meetings (IRCC, HSSC, WEND-WG & MSDIWG etc)) there are important meetings which Member States should endeavour to attend as it builds experience with all participants in this RHC.

India noted that these meetings are important however travel authorisation can be problematic for some Member States and that consideration should be given to hosting these meetings in Member State countries.

UK highlighted that it attends a number of these meetings and on request would be happy to represent NIOHC if the nominated Member States could not attend.

The Chair highlighted that regarding action 4 (Add international organizations as official Observers for e.g. (PERSGA, IALA) proposed by UK, NIOHC states to consider other relevant regional organizations and provide details to the Chair) this NIOHC enjoys the attendance of seven industry representatives and looks forward to their presentations.

The Chair asked the floor if there were any industry representations they would like to consider inviting to attend NIOHC. There were no suggestions from the floor.

The Chair decided to close this action and asked Members States to inform the Chair of any industry representation they believe should be invited to attend NIOHC.

NIOHC 18 Action list with outcomes

No.	Agenda Item	Action	Action By	Deadline	Status
1	3.1	Investigate ways to encourage engagement with Jordan, Maldives and Sudan to progress towards their becoming members of NIOHC and IHO	Chair	Ongoing	Complete
NEW STATUS		REMAIN ONGOING	All	Ongoing	Ongoing

Chair- notes engagement that has been conducted with these countries and encourages Member States to continue. The decision was to keep this action on going.

No.	Agenda Item	Action	Action By	Deadline	Status
2	3.2	Member States are encouraged to participate in IHO meetings (IRCC, HSSC, WEND-WG & MSDIWG etc).	All		Ongoing
NEW STATUS		REMAIN ONGOING	All	Ongoing	Ongoing

Comments same as above, the action is to remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
3	4.1	Chair to invite Indonesia to sign the NIOHC statutes and forward to the IHO Secretariat.	Indonesia	Indonesia may forward the signed statutes to IHO keeping NIOHC informed by end May 2018	Open
NEW STATUS		CLOSED			

The Chair has completed this action and so the action is closed.

No.	Agenda Item	Action	Action By	Deadline	Status
4	4.2	Add international organizations as official Observers for e.g. (PERSGA, IALA), NIOHC states to consider other relevant regional organizations and provide details to the Chair.	Chair to invite International and regional bodies.	MS to recommend regional and local organisations by Nov 2018	Open

NEW STATUS		CLOSED – Chair asked MS to advise the sitting Chair and Secretariat of any new observers.			
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The Chair noted the exceptional attendance of industry representatives in the room and moved the action to closed.

No.	Agenda Item	Action	Action By	Deadline	Status
5	5.2	Capt. Peush Pawsey, IN nominated as NIOHC rep to IHR editorial board			Action completed
NEW STATUS		CLOSED			

The Chair has completed this action and moved the action to closed.

No.	Agenda Item	Action	Action By	Deadline	Status
6	5.4.2	Encourage NIOHC states to make ENCAs available through RENC		Ongoing	Ongoing
NEW STATUS		REMAIN ONGOING			

The Chair again encouraged this action and so action is to remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
7	5.4.2	Encourage NIOHC states to make currently held data publicly available and discoverable.		Ongoing	Ongoing
NEW STATUS		REMAIN ONGOING			

The Chair advised this section would be covered in later agenda item 26. Following discussion in item 26 the action was to remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
8	5.4.2	MS to forward comments views on CSB to Chair. Chair to forward comments to IRCC	All Member States	01 May 2018 15 May 2018	Closed - time expired
NEW STATUS		CLOSED			

The Chair noted that this action timeline had expired and so the action was now closed.

No.	Agenda Item	Action	Action By	Deadline	Status
9	5.4.2	Consider provision of shallow water data to the IHO DCDB for use in the GEBCO		Ongoing	Ongoing
NEW STATUS		REMAIN ONGOING			

The Chair advised this action would be covered in agenda item 21.1. Following discussion in agenda item 21.1 this action would remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
10	5.4.2	UK to provide feedback on NSHC CSB trial	UK	NIOHC 19	Open
NEW STATUS		CLOSED			

The Chair advised that the trial was yet to take place with timing as yet unknown. Once it had, the Chair was happy to provide report to the Member States. As such the Chair closed the action.

No.	Agenda Item	Action	Action By	Deadline	Status
11	5.4.2.8	Consider nomination of an RHC MSDI Ambassador to promote the establishment of national MSDI as part of the national SDI management		Ongoing	Ongoing
NEW STATUS		CLOSED – UK volunteered to by the MSDI Ambassador			

The Chair advised that this action would be covered in agenda item 26. Following discussions in item 26 the UK volunteered to be the NIOHC MSDI representative. The action is therefore closed.

No.	Agenda Item	Action	Action By	Deadline	Status
12	5.4.3	Forward NIOHC report to WEND WG	Chairman NICCWG	end April 2018	Not completed
NEW STATUS		CLOSED			

The Chair advised that this action would be covered in agenda item 7.4. The Chair confirmed a report would be delivered for next WENDWG by Chair of NICCWG. Action is now closed.

No.	Agenda Item	Action	Action By	Deadline	Status
13	5.4.4	Forward NIOHC report to IRCC10	Chair	10 May 2018	Complete
NEW STATUS		CLOSED			

The Chair advised this action had been completed and therefore closed.

No.	Agenda Item	Action	Action By	Deadline	Status
14	5.5	Review published data and provide updates to	All Members	31 Dec every year	Ongoing

		C55 and P5 at least once per year			
NEW STATUS		REMAIN ONGOING			

The Chair highlighted the importance of keeping information in P-5 and C-55 up to date. IHO Assistant Director has revised the lasted information and informed the attendees that some Member States information were a few years behind. This action was to remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
15	9	Circulate letter requesting bids for CB activities for submission to CBSC17	CB Coordinator UK is Coordinator	Report submission CBSC 17 Member states to submit bids by 31 Dec 2018.	Open
NEW STATUS		CLOSED			

The Chair advised this action would be covered further in agenda item 17.3. The action had been completed and so moved to closed.

No.	Agenda Item	Action	Action By	Deadline	Status
16	11 .5	Improve provision of navigational warning information from national coordinators to NAVAREA VIII and NAVAREA IX Coordinators	Area 'J' countries are to share information with appropriate NAVAREA Coordinators	Ongoing	Ongoing
NEW STATUS		REMAIN ONGOING			

The Chair highlighted the importance of this action to Member States. The action is to remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
17	11.5	Engage with future work of the IMO-ITU EG and GMDSS CG	Member States		Open
NEW STATUS		REMAIN ONGOING			

There will be changes to SOLAS which will affect every Member State. IHO Assistant Director advised all Member States to maintain an awareness of this. The action is to remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
18	11.5	Cross check C-55 and GMDSS Master Plan Annex 7 and 8 entries to ensure harmonization of information		Ongoing	Ongoing
NEW STATUS		REMAIN ONGOING			

The Chair reiterated the importance of this action. IHO Assistant Director advised that Member States can obtain the information from the IHO website. The action is to remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
19	17.4	Provide details of tide gauges and currents meters for inclusion in the Inventory of National Tide Gauges and Current Meters on the TWCWG page of the IHO website	Member States	Ongoing	Ongoing
NEW STATUS		REMAIN ONGOING			

IHO Assistant Director advised that IHO had received no updates from the NIOHC region and encouraged Member States to do so.

The Chair reiterated that in the S-100 era this data will be really important.

The action is to remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
20	17.4	Provide URLs to real-time online tides and currents websites for inclusion in the Actual Tides and Currents Online Links on the TWCWG page of the IHO website	Member States	Ongoing	Ongoing
NEW STATUS		REMAIN ONGOING			

There were no comments from Member States. The action is to remain ongoing.

No.	Agenda Item	Action	Action By	Deadline	Status
21		Chair to report back IHO- EU Network WG activity from IRCC to NIOHC MS		NIOHC 19	Open (updated by Edward 08/01/19)
NEW STATUS		CLOSED			

The Chair noted that there were no requirements for Member States to be members and that any issues are reported back by the Chair after attending IRCC. There were no specific issues to report to the RHC and this will become a standard item for IRCC activity. The Chair moved this action to closed.

No.	Agenda Item	Action	Action By	Deadline	Status
22	17.4	Circulate list actions to MS by Mid Apr 18 and minutes by Mid May 18	Chair		Complete
NEW STATUS		CLOSED			

The Chair had completed this action and so therefore moved it to closed.

No.	Agenda Item	Action	Action By	Deadline	Status
23	18	Circulate draft NICCWG minutes by end Apr 18	NICCWG Chair		Complete
NEW STATUS		CLOSED			

The NICCWG Chair has completed this action therefore the action is closed.

There were no further comments from the Member States.

6 NIOHC Statutes- The Chair asked the NIOHC delegation if they had any proposed comments or amendments they wished to make to the statutes. UK raised that the statutes as they stand require maintenance as they contain legacy references and out of date information. Furthermore, UK put forward his belief that a one-year Chair term did not provide the optimum continuity. This loss of continuity from handing over Chairmanship causes disruption and delay to deliverables, therefore the Chair proposed that the Chair term be extended to a two year term. The Chair noted that other RHC's have a two year Chair term. The Chair suggested that de-latching hosting of the RHC from the Chair and Vice Chair should be looked into and that these changes would potentially be brought into force after 2020.

IHO Director shared the Chairs view noting that in his experience of other RHCs', two years was the optimum periodicity. Egypt supported this view. India advised that any amends to the statutes would need to be cleared by their higher level authorities. Indonesia believed a two year Chair period was better and suggested a working group be established to discuss the changes. Bangladesh also supported a two year Chair period but raised concerns that smaller member states would have less chance to Chair owing to them being a smaller state and therefore more burdensome.

All eight Member States confirmed that a Statutes WG should be established. Egypt, India, Indonesia, Sri Lanka and UK confirmed they wished to be part of the WG. The Chair asked UK to provide secretariat support. The WG would look not only at the Chair period proposal but wider aspects of the statutes. The NIOHC Secretariat took the below action;

No.	Agenda Item	Action	Action By	Deadline
11	6	NIOHC Secretariat - to work up terms of reference for the proposed WG. Circulate to members by end of this RHC meeting to cover in AOB	NIOHC Secretariat	NIOHC 19 AOB

Following circulation of the draft terms of reference to Member States, further discussions would take place in item 28 Any Other Business (AOB).

7 IHO Matters (Session 1 of 2)

7.1 IHO Secretariat Report to Include S-100- Mustafa Iptes (IHO Director) presented a brief of the IHO Secretariat Report to the NIOHC delegation. He advised that a detailed report could be found on the IHO website and proceeded to provide and update on the points below;

- 2nd Council meeting, circular letter to be sent out in April 2019
- Capacity Building programme, highlighting the NIPPON course
- Circular letter regarding DCDB to be issued to Member States soon
- Updating of P-5
- IHO Centenary celebrations, a CL will be sent to Member States regarding participation
- S-100 updates (presentation on IHO website)

7.2 IRCC 10 Report- IHO Director provided his report to the NIOHC delegation. The Chair noted that IRCC actions and recommendations would be discussed specifically in agenda item 9. The report covered;

- Outcomes of the IRCC10 meeting
- Capacity Building achievements
- Consideration of MSI training courses led by WWNMS-CS
- Overlap issues
- Data being made available to RENCs for data assessment
- S-57 licence management service for all class of vessels
- GEBCO and Seabed 2030
- Endorsement of final draft version of B-12 guidelines
- Next meeting the 11th to be held in Genoa, Italy 3-5 June 2019. The 12th meeting is proposed to be held in Poland in 2020

There were no comments from the floor.

7.3 WENDWG9 REPORT- IHO Director provided his report to the NIOHC delegation. The Chair noted that there was a number of aspects of the report that affected NIOHC members and encouraged Member States to read the report.

IHO Director noted the World Electronic Navigation Service (WENS) paper presented by NOAA describing the WENS concept and PRIMAR's continued work developing S-100 based products and services. This prompted a discussion regarding data dissemination to the non-regulated SOLAS market and generated the below action;

No.	Agenda Item	Action	Action By	Deadline	Status
12	7.3	All nations requested to investigate and articulate the challenges and dissemination of data to the mariner in the non-regulated SOLAS market and report at NIOHC 20	All	NIOHC 20	Open

7.4 2nd Council Report- India was not present at the 2nd Council meeting held in London October 2018 and so the Chair provided a report to the NIOHC delegation. The Chair provided a summary of the key topics;

- Strategic Plan Review Working Group Report
- S-100 Product Provision
- Crowdsourced Bathymetry Working Group Guidelines
- Seabed 2030
- Preparations for Council-3 and Assembly-2
- Other

The Chair noted that topics as briefed in the presentation would be covered in more details in later agenda items.

7.5 HSSC10 Report- IHO Director presented his report to the NIOHC delegation. US highlighted that one of the significant changes was the approval process which meant that Member States are involved much sooner in the process. India asked US to provide an update on the implications to the changes to S-58. This led to a discussion around what the impact of the changes was to Member States. India raised several concerns with changes and took the following action;

No.	Agenda Item	Action	Action By	Deadline	Status
13	7.5	India- To raise S58 checks issue at the next ENC WG	India	Next ENC WG	Open

7.6 IHO Year Book P-5- IHO Assistant Director provided feedback to the NIOHC delegation highlighting the need for Member States to inform IHO of all changes even if the details on Member States existing P-5 had not changed. For expediency IHO Assistant Director covered item 11.1. In addition, IHO Assistant Director briefed that in future, Member States would be able to update their details directly on the IHO website as well as the existing methods. The Chair reiterated to delegates that the yearbook is the primary source of information for each country and so should be kept up to date accordingly. UK noted that where UK is PCA, they have provided the charting aspects of C-55 updates to both the Coastal State concerned and IHO.

8 Actions arising from HSSC10- The Chair clarified whilst there were no HSSC actions that specifically related to RHCs, there were a number of items that Member States need to consider and urged all to read the report. The Chair encouraged member states to consider greater participation at IMO Sub Committee on Navigation (NCSR) and IMO/IHO Harmonisation Group on Data Modelling (HGDM).

9 Actions and Recommendations arising from IRCC10- The Chair noted that there were specific actions and recommendations that were appropriate to address in specific areas of the agenda. As such the Chair discussed the below actions recommendations;

- **1 to encourage Member States to provide material to the IHO Secretariat for the promotion of the centenary of the IHO (deadline: IRCC11)**

IHO Director provided a brief on current IHO activities for the centenary and encouraged Member States to provide input to the event.

Pakistan enquired as to whether there was a specification for member states to follow. IHO Director agreed with this proposal and would be included within the Circular Letter containing the formal invite.

- **14 Encourage IHO Member States to release datasets or subsets into the public domain via the IHO DCDB**

The Chair noted that this action is linked to GEBCO 2030 and making data more widely available. IHO Assistant Director noted that there were various methods and formats which could be used to support this action.

- **15 Request IHO Member States to state their policy on data gathering restrictions within their maritime areas of jurisdiction to enable CSB activities to be undertaken**

The Chair acknowledged that this action is probably overtaken by events but still encourages Member States to understand the impact of gathering crowd sourced bathymetry (CSB) and if there are any legal concerns, share them with other Member States so that all are informed.

- **16 request IHO Member States to support the CSB initiative with positive actions, such as requiring all research vessels collect bathymetric data for late uploading, then on passage or when it does not interfere with other research activities**

The Chair encouraged Member States to support this initiative noting that Member States observe their national regulations.

- **17 Request the IHO Member States to promote a scaled trial of CSB data collection as a follow up to earlier pilot programs**

The Chair stated the UK will provide a report on this when they have done so. There was nothing to add from the floor.

- **21 Consider how the IHO might be represented in events in Annex of doc IRCC10-09B**

The Chair advised there were numerous meetings around the world for which representation from the hydrographic community would be beneficial noting that the IHO Secretariat team are unable to attend all of them. To support this initiative, the following action was set;

No.	Agenda Item	Action	Action By	Deadline	Status
14	IRCC10 action 21	All Members – consider where Member States can support international events of relevance occurring in their country or region liaising as necessary with IHO Secretariat.	All	Ongoing	Ongoing

- **22 Encourage RHCs to use tides, water level and currents training material developed, and the training resource offered by the TWCWG in their capacity building programmes.**

The Chair advised this action was covered through the Tides and Water Levels working group. The Capacity Building coordinator will further this work.

- **23 Invite RHC's to encourage States in the region to contribute to the inventory of tide gauges and current meters**

The Chair noted that this action was similar to action IRCC twenty two. IHO Assistant Director advised that this data is available on the IHO website.

Pakistan enquired with IHO if the module contained any analysis of prediction models? IHO Assistant Director advised that it does not as it is not a CAT B course.

END OF DAY 1

Day 2

10 NIOHC input to IHO meetings (Closed Session)

10.1 NIOHC Report to IRCC11- The Chair advised that IRCC11 will take place the first week of June in Genoa Italy and referenced NIOHC letter number two requesting Member States prepare in advance for this section of the meeting to generate good discussion. UK advised it would be useful to have a section dedicated to MSDI work and capacity building activity. In addition, highlighting to IRCC11 the fantastic attendance of NIOHC 19. CB Coordinator requested Member States make her aware of any capacity building being undertaken so that she can be aware.

10.2 3rd IHO Council considerations- The Chair referenced NIOHC letter number two requesting Member States prepare in advance for this section of the meeting to generate good discussion noting that this was the last time that Member States would meet like this before Council. IHO Director provided a quick overview of the current draft programme. The Chair raised the below items as considerations to put forward to Council,

- Exploration of the strategic plan
- S-100 and the impact to Member States
- Wider use of data
- Capacity Building Work programme
- Bespoke challenges to the NIOHC region
- Changes to IHO resolution 2/1997

There was in depth discussions focused around capacity building related issues. India raised a suggestion that capacity building funds could be de-centralised and controlled by individual regions. This was supported by various Member States and debated by the floor. IHO Director noted that there is an already existing capacity building strategy which has a capacity building sub-committee. Within the sub-committee there is an enduring agenda item that is dedicated to addressing input from Member States. Member States and the RHC can submit ideas to this committee for consideration. The following actions were generated from this discussion;

No.	Agenda Item	Action	Action By	Deadline	Status
15	10.2	Chair- to arrange a dedicated agenda time on S100 development and product/service delivery by next meeting	Chair	NIOHC 20	Open
16	10.2	CB Coordinator/All- to form a CB subcommittee for NIOHC to better inform capacity building activity within the NIOHC region by next meeting	CB Coordinator/All	NIOHC 20	Open
17	10.2	CB Coordinator/India- develop a paper to present to Council/IRCC/CBSC reflecting concerns regarding allocation of IHO Capacity Building resource/funds by June 2019	CB Coordinator/All	Jun-19	Open

10.3 2nd IHO Assembly considerations- The Chair referenced NIOHC letter number two requesting Member States prepare in advance for this section of the meeting to generate good discussion. The Chair sought considerations and proposals to Council as well as any key topics the NIOHC delegations would like to raise. Again, the Chair noted that NIOHC will not meet again until after Assembly. The main considerations were covered in item 10.2

11 IHO Matters (session 2 of 2)

11.1 Status of Hydrographic Surveying and Nautical Charting Worldwide C-55- IHO Assistant Director reiterated points covered in item 7.4.

The Chair emphasised to the delegation that it is incumbent on all PCA and CS to ensure that the C-55 information is up to date.

The Chair advised the Member States to consider the IRCC10 recommendations;

- IRCC10 Recommendation - CBSC
8. Encourage Member States to provide CATZOC information for C-55 directly or via RENCs as an interim solution introducing CATZOC information
- IRCC10 recommendation – Inputs from Member States and other bodies affecting IRCC – HSSC
20. RHC to share their internal guidelines and Best Practices on the population of CATZOC values through the DQWG
- IRCC10 recommendation – IRCC Work Programme Management:

Contribute to monitoring and improving global status of hydrographic surveying

11.2 Marine Spatial Data Infrastructure- (NIOHC 19.11.2)

IHO Assistant Director provided his presentation to the NIOHC delegation covering MSDI and the MSDIWG held in Busan 4-5 March 2019. UK and Indonesia attended from the NIOHC region, a full report of the meeting is available on the IHO website.

12 Industry Presentations iXblue (session 1 Of 7)– Mr David Vincetelli supported by Mr Emmanuel Sgherri provided a presentation to the delegation covering Un-manned platform to perform large scale hydrographic survey. iXblue’s presentation is available on the IHO website.

13 National Reports Members- The Chair invited each Member State to present a summary of their national report to the NIOHC delegation. All national reports and accompanying presentations (where created) can be found on the IHO website.

Bangladesh- No comments

Egypt- IHO Assistant Director raised that MSI communications between Egypt, NAVAREA 3 and NAVAREA 9 were not good and requested Egypt address this as soon as possible resulting in the action below. Egypt clarified that this was not the direct task for ENHD, but rather EAMS and offered to engage to improve this communication

No.	Agenda Item	Action	Action By	Deadline	Status
18	13	Egypt requested to engage with maritime safety authority to confirm most expeditious means are being utilised for transmission of maritime safety information ASAP	Egypt	ASAP	Open

India- No comments

Indonesia- No comments

Myanmar- No comments

Pakistan- No comments

Saudi Arabia- No comments

13.1 Members – continued

Sri Lanka- No comments

Thailand- No comments

United Kingdom- No comments

14 Industry Presentations- SevenCs (2 of 7)- Yee Wei Loh provided SevenCs presentation covering ENC Solutions for S-100 and beyond. The presentation is available on the IHO website.

15 National Reports

15.1 Associate Members

Australia- No comments

France- No comments

Oman- No comments

Mauritius- No comments

Seychelles- No comments

USA- No comments

The Chair invited Somalia and Yemen to provide a brief on hydrographic developments within their areas.

Somalia- Mr Sidow Sheikh Ali Nur provided a brief to the NIOHC delegations. He advised that Somalia is ready to participate fully in the maritime arena and thanks IMO for all their support. He outlined his ambition to create a Somalia hydrographic office and is undertaking training wherever possible to fulfil this goal.

The Chair remarked it was great to see Somali at NIOHC and encourages them to become full members of IHO and benefits from the training available. IHO Director shared the Chairs thoughts and offered IHO assistance as to how to set up a hydrographic office. He further encouraged Somalia to attend RHCs and other IHO meetings as much as possible.

IALA indicated that they have been working with Somalia and are in discussions as to when IALA can visit. He proposed a joint visit with IHO. The Chair also asked if IMO could be part of the visit.

This generated the below action;

No.	Agenda Item	Action	Action By	Deadline	Status
19	13	IALA and IHO Secretariat- to investigate possibility of joint visit to Somalia with IMO support if possible by next meeting.	IALA and IHO Secretariat	NIOHC 20	Open

Yemen- Captain Yeslem Mubark Salam Bu-Amr thanked Oman for hosting the RHC and for the excellent arrangements and thanked the NIOHC delegation for the opportunity. He remarked that Yemen requires further training support from the IHO to bring them up to required standards and skills.

The Chair thanked Yemen for their attendance and hopes to see them in future meetings noting that there are phase one training courses which they can draw upon.

16 Industry Presentations EOPMAP (session 3 of 7)- Mr Knut Hartmann provided EOMAPS presentation covering Satellite Bathymetry – Developments on SDB methods. The Chair noted that UK is using SDB extensively. The presentation is available on the IHO website.

17 NIOHC Committees and Working Groups

17.1 North Indian Ocean Chart Coordination Working Group Report- The Chair introduced the NICCWG Coordinator provided a brief overview of the NIOHC 19 ICCWG. All issues with INT charts were discussed, out of the 170 INT charts in the region 163 have been published.

The NICCWG recommended to NIOHC plenary that nine Bangladesh INT charts were endorsed. All nine charts were endorsed.

17.2 NAVAREA Report- The Chair introduced the NAVAREA Coordinator (India) to provide the NAVAREA report for the NIOHC region. NAVAREA Coordinator stressed the importance of maritime safety and works hard in the region to collate all event information in India's national waters and forwards to other NAVAREAs, with a follow up afterward. NAVAREA Coordinator highlights that the Indian Navy can always be contacted if required.

17.3 North Indian Ocean Hydrographic Commission Capacity Building- The Chair introduced the Capacity Building Coordinator who provided a brief overview to the NIOHC delegation including feedback from the Raising Hydrographic Awareness seminar. The Chair noted the below IRCC10 recommendation;

IRCC10 recommendation – CBSC

7. Encourage Member States to engage with their IMO delegations to provide support to the IMO Member States that are not IHO Members to comply with SOLAS Chapter V

There was a lengthy discussion around how the capacity building funds were shared out across the regions. IHO Director offered his advice as to how best to submit successful applications for capacity building funding to IHO such as joint submissions with other RHC's. The below capacity building requests were identified as considerations for submission to IHO;

- Joint submission with RSAHC MSI course (Sri Lanka want to attend)
- Joint submission with RSAHC MSDI course (Sri Lanka want to attend)
- Technical Visit to Somalia
- Look at opening out MBES Processing course funding for 2019 out to RSAHC. Funding for course is 24,876 euros.

18 Industry Presentations Teledyne (CARIS) (session 4 of 7)- Mr Matthew Holland presented Teledyne (CARIS) presentation covering Geospatial Solutions and data services for S-100. The presentation is available on the IHO website.

19 Relevant International Organisations Report (session 1 of 2)

19.1 International Maritime Organisation (IMO)- IHO Assistant Director provided a report to the NIOHC delegation. The report covered updates and developments to Maritime Autonomous Surface Ships (MASS) noting that these ships have been in operations for some time already and that this was the future of shipping. As such, Hydrographic Offices needed to be aware of this and start planning for delivery of data in new formats to support. UK considered that technology is moving forward apace, and asked how the regulatory bodies “keep up” with the technological advancements? IHO Assistant Director, responded that the majority of operations are inside internal/ territory waters, and consequently outside regulatory jurisdiction.

20 Industry Presentations AML Oceanographic (session 5 of 7)- Mr David Wilson presented AML Oceanographic presentation to the NIOHC delegation covering Dealing with Variable SV Structure. The presentation is available on the IHO website.

END OF DAY 2

21 Relevant International Organisations’ Report

21.1 General Bathymetric Charts of the Ocean (GEBCO)- IHO Assistant Director delivered his presentation to the NIOHC delegation. The presentation outlined how GEBCO received its data and where it came from. IHO Assistant Director noted that CSB was a huge resource which GEBCO encourages to be sent to them. The Chair notes that as an RHC, NIOHC is encouraged to consider how the region can contribute to Seabed 2030.

The Chair notes the below IRCC10 recommendations 18 and 19;

18. Continue to encourage Member States to organize contribution of bathymetric data in shallower coastal areas to GEBCO via IHO DCDB in order to support the production of higher resolution gridded data products of GEBCO.

19. Invite and communicate with, GEBCO members to their meetings

21.2 Crowd Sourced Bathymetry (CSB)- IHO Assistant Director delivered a presentation to NIOHC delegation. Noted the work conducted by the CSBWG creating B-12 highlighting that the document is for guidance and not a standard. Eight MS have approved the draft B-12 document and will be approved pending amendments by other MS. IHO Assistant Director advised that data can be stored in the DCDB with caveats set by MS such as not releasing into the public domain. The presentation is available on the IHO website.

21.3 International Association of Lighthouse Authorities (IALA)- Mr Omar Eriksson delivered IALA’s presentation to the NIOHC delegation. The presentation is available on the IHO website.

UK thanked IALA for its valuable presentation and commented how we best coordinate IHO technical Assessment Visits with IALA Technical Missions, noting that a combined IMO/IALA/IHO mission convened in Sudan in 2018. IALA responded that there were cross-organisational communications and alignment, where possible, was considered where possible.

21.4 Regional Organisation for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA)- the Chair invited Dr Captain Mamdouh Meligy to deliver PERSGA's presentation covering Protecting the Marine and Coastal Environment. The presentation can be found on the IHO website.

IHO Director thanked PERSGA for their comprehensive presentation and noted that they were very active in maritime safety activities.

US questioned as to whether PERSGA would be willing to consider being involved with CSB activities. PERSGA are happy to and have no problems working with any countries or organisations.

UK noted the intrinsic links to the need to consider a regional MSDI to cover aspects as raised during the PERSGA brief.

21.5 Regional ENC Coordination Centre (RENC)- Mr James Harper delivered IC-ENC's presentation to the NIOHC delegations. The Chair noted that PRIMAR was unable to attend and that their presentation will be available on the IHO website.

22 Industry presentations Kongsberg Maritime (session 6 of 7)- Mr Gier Flugiem Skogen delivered Kongsberg Marines presentation to the NIOHC delegation. Presentation available on IHO website.

23 Maritime Safety and the World Wide Navigational Warning Service- IHO Assistant Director briefed that as a result of the amendments to SOLAS regulations, MSI has needed to be updated

IHO Assistant director briefed on changes and updates to WWNWS systems noting a new application for new system from BeiDou has been received and is undergoing evaluation from NCSR. Presentation available on IHO website.

24 Experience in dealing with maritime disasters in relation with IHO Guidelines- India presented to the NIOHC delegation how the Indian Navy is structured to respond to maritime disasters. India noted that their vessels are outfitted to respond whenever needed.

The Chair encouraged to MS to keep their P-5 information as up to date as possible.

India added that on their website they maintain an immediate contacts sheet which provides details of the basic search and rescue mechanisms along the Indian coast. This information can also be downloaded as PDF. In addition, India have added emergency contact numbers onto the reverse of Indian Charts and INT charts. UK stressed that this information is also being provided on all Indian adopted products to support a consistent message.

India requested the Chair to discuss making this a standard with IRCC.

The Chair noted that the RHC can make the IRCC aware however it cannot impose.

The following actions were generated;

No.	Agenda Item	Action	Action By	Deadline	Status
20	24	Chair- to generate a template for HADR contact details and share with MS to populate with a time line of 2 months to complete	Chair	May-19	Open

No.	Agenda Item	Action	Action By	Deadline	Status
21	24	Chair- to raise this NIOHC discussion and recommendations (Maritime Disaster in Relation with IHO guidelines) at next IRCC	Chair	Next IRCC	Open

No.	Agenda Item	Action	Action By	Deadline	Status
22	24	India- to raise the importance of hydrographic services in HADR at the next Council meeting recommending that suitable visibility for this important element is included in IHO documentation	India	Council 3	Open

25 Industry presentations Fugro- Mr Hugh Parker supported by Mr Chris Collier delivered Fugro's presentation to the NIOHC delegation. Fugro noted that it donated over 450km² of high resolution bathymetric data to GEBCO

IHO Director noted that Fugro sets a good example to others for providing data to GEBCO. Fugro's presentation is available on the IHO website.

26 Regional MSDI- Mr Tim Lewis (UK) presented an overview to the NIOHC delegation of current MSDI activities, recent IHO activity in this area and outlined what better coordination amongst MS could achieve noting that data discovery is very important. UK also referred to the IRCC recommendations for RHCs to consider MSDI activities.

The Chair asked the floor as to who would like to be the NIOHC MSDI Champion noting that UK would be happy to do so if there were no volunteers. No MS volunteered. UK is NIOHC regional MSDI Ambassador.

The presentation is available on the IHO website.

27 Blue Economy by Seychelles- Seychelles provided a presentation to the NIOHC delegation.

India commented that they are moving into the Blue Economy arena and noted that marine spatial planning is prevalent and that they are involved with multiple stakeholder who have recognised the data the India Navy holds.

28 Any Other Business- There were four items identified to be covered in AOB and are detailed below;

1.) Terms of Reference (TOR) for Statutes WG

Following dissemination of the draft TOR's to member states for comments, the draft TORs were amended in plenary and agreed.

The Chair asked the floor if NIOHC MS should examine how they are interpreting the statutes such as what is meant by charting in region J? The Chair asked Oman if they would be content to be used as an example in this way. Oman confirmed they are happy to and wish to become a full member of NIOHC for this study.

The Chair requested that the five members of the working group, Egypt, India, Indonesia, Sri Lanka and UK decide who the chairman for the group will be and to inform the secretary (UK).

No.	Agenda Item	Action	Action By	Deadline	Status
23	28	Statutes WG- to decide who will be the Chair of the working group and inform the secretary.	Statues WG	July 2019	Open

Following establishment of the Statutes WG Chair The Chair tasked the Statues WG with the below action;

No.	Agenda Item	Action	Action By	Deadline	Status
24	28	WG Chair- WG to report on findings to next NIOHC meeting	WG Chair	NIOHC 20	Open

2.) Capacity Building Working Group membership

The Chair asked the floor if all of the MS wished to be part of the group. Currently the group consists of India and UK. No other MS expressed an interest.

3.) Election to council

The Chair advised that the statutes state that three months before Council the IHO Secretary General will advise the Chair the number of seats available at the next assembly. NIOHC MS will need to vote in January/February 2020 the representative at assembly. The new Chair, Sri Lanka will raise this with MS nearer the time.

4.) Note to Sultan

The Chair had been provided with a draft Cable to the Sultan provided by Oman. This was displayed to all MS. The Chair asked all MS if the draft Cable was acceptable. There were no objections from the floor.

29 Approval of the action list- The action list was displayed to all MS and was further explained by the Chair.

All MS approved the action list. The action list is provided in annex A.

30 Date and Venue of next meeting- The Chair suggested a place holder for early May 2020 noting that UK is hosting the HSSC third week of May. Sri Lanka commented that after the tenth of May would suit them better. The Chair advised this was to be deliberated at a later time.

31 Election of Chair and Vice Chair- The Chair commented that it is traditional to anoint the Vice Chair as Chair of the next meeting, in this case Sri Lanka. There were no objections from MS.

The Chair invited MS to put themselves forward for consideration of Vice Chair. India proposed Indonesia. Indonesia accepted, UK seconded the nomination. There were no further comments from the floor. Indonesia confirmed to be Vice Chair following unanimous vote.

32 Closing remarks- IHO Director expressed his view that NIOHC 19 was one of the most productive with a detailed agenda and executed well. He formally thanked Oman for the splendid hosting and providing such professional support. The Chair seconded IHO Directors comments and offered his own thanks to the NIOHC Secretariat team and Oman for their support to hosting.

33 Meeting Closure – Handing over of NIOHC Flag to new Chair- The Chair formally handed over the NIOHC flag to the new Chair, Sri Lanka and officially closed the meeting.

Annex A- Action List

No	Agenda Item	Action	Action By	Deadline	Status
1	3.1 (from 2018 actions)	Investigate ways to encourage engagement with Jordan, Maldives and Sudan to progress towards their becoming members of NIOHC and IHO	Chair	Ongoing	Ongoing
2	3.2 (from 2018 actions)	Member States are encouraged to participate in IHO meetings (IRCC, HSSC, WEND-WG & MSDIWG etc).	All	Ongoing	Ongoing
3	5.4.2 (from 2018 actions)	Encourage NIOHC states to make ENC's available through RENC	All	Ongoing	Ongoing
4	5.4.2 (from 2018 actions)	Encourage NIOHC states to make currently held data publicly available and discover.	All	Ongoing	Ongoing
5	5.5 (from 2018 actions)	Review published data and provide updates to C55 and P5 at least once per year	All Members	31 December every year	Ongoing
6	11.5 (from 2018 actions)	Improve provision of navigational warning information from national coordinators to NAVAREA VIII and NAVAREA IX Coordinators	Area 'J' countries are to share information with appropriate NAVAREA Coordinators	Ongoing	Ongoing
7	11.5 (from 2018 actions)	Engage with future work of the IMO-ITU EG and GMDSS CG	All	Ongoing	Open

8	11.5 (from 2018 actions)	Cross check C-55 and GMDSS Master Plan Annex 7 and 8 entries to ensure harmonisation of information	All	Ongoing	Ongoing
9	17.4 (from 2018 actions)	Provide details of tide gauges and currents meters for inclusion in the Inventory of National Tide Gauges and Current Meters on the TWCWG page of the IHO website	Member States	Ongoing	Ongoing
10	17.4 (from 2018 actions)	Provide URLs to real-time online tides and currents websites for inclusion in the Actual Tides and Currents On-line Links on the TWCWG page of the IHO website	Member States	Ongoing	Ongoing
11	6	NIOHC Secretariat - to work up terms of reference for the proposed WG. Circulate to members by end of this RHC meeting to cover in AOB	NIOHC Secretariat	NIOHC 19 AOB	Complete
12	7.3	All nations requested to investigate and articulate the challenges and dissemination of data to the mariner in the non-regulated SOLAS market and report at NIOHC 20	All	NIOHC 20	Open
13	7.5	India - To raise S58 checks issue at the next ENC WG	India	Next ENC WG	Open

14	IRCC10 action 21	All members – consider where Member States can support international events of relevance occurring in their country or region liaising as necessary with IHO secretariat.	All	Ongoing	Ongoing
15	10.2	Chair- to arrange a dedicated agenda time on S100 development and product/service delivery by next meeting	Chair	NIOHC 20	Open
16	10.2	CB Coordinator/All- to form a CB subcommittee for NIOHC to better inform capacity building activity within the NIOHC region by next meeting	CB Coordinator/All	NIOHC 20	Open
17	10.2	CB Coordinator/India- develop a paper to present to Council/IRCC/CBSC reflecting concerns regarding allocation of IHO Capacity Building resource/funds by June 2019	CB Coordinator/All	Jun-19	Open
18	13	Egypt requested to engage with maritime safety authority to confirm most expeditious means are being utilised for transmission of maritime safety information ASAP	Egypt	ASAP	Open

19	13	IALA and IHO Secretariat- to investigate possibility of joint visit to Somalia with IMO support if possible by next meeting	IALA and IHO Secretariat	NIOHC 20	Open
20	24	Chair- to generate a template for HADR contact details and share with MS to populate with a time line of two months to complete	Chair	May-19	Open
21	24	Chair- to raise this NIOHC discussion and recommendations (Maritime Disaster in Relation with IHO guidelines) at next IRCC	Chair	Next IRCC	Open
22	24	India- to raise the importance of hydrographic services in HADR at the next Council meeting recommending that suitable visibility for this important element is included in IHO documentation	India	Council 3	Open
23	28	Statutes WG- to decide who will be the Chair of the working group and inform the secretary.	Statutes WG	July 2019	Open
24	28	WG Chair- WG to report on findings to next NIOHC meeting	WG Chair	NIOHC 20	Open