

**SAIHC17 Plenary Report Video Tele Conference 3 - 4 February 2021**

Note - this document does not act as full meeting minutes, however it provides an overview of Records of Decisions (ROD) and summary of action items. A summary of actions can be found at Annex A.

All reports and presentations are uploaded on the IHO SAIHC webpage.

The numbering in the report coincides with the agenda items of the SAIHC17 meeting.

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## 17<sup>th</sup> Southern African and Islands Hydrographic Commission

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## SAIHC 17 Plenary Day 1 Wednesday 3<sup>rd</sup> February 2021

### Chair Intro, Opening remarks and welcome

RAdm Peter Sparkes (UK) introduced himself and is delighted and honoured to have taken over the role as Chair of the Southern African and Islands Hydrographic commission. The Chair noted that these are challenging and difficult times and sent his and UKHO's best wishes to delegates and their respective families at this time. The Chair commented on the region's commitment to hydrography and the mutual support of partner Hydrographic Offices (HO's) in recent months; it has been fundamental to our continued support to mariners in the region. We will undoubtedly be stronger following the COVID-19 crisis. He hoped it would not be too long before we can meet again in person and looks forward to this. The Chair reflected on the importance of sharing collective experience during these challenging times to maximise opportunities and benefits and minimise duplicate efforts. Referring to the dreadful events in Beirut, Lebanon, the Chair noted the collective HO work, in common purpose, to ensure that the port of Beirut was able open safely and as quickly as possible. This was noted as a fine example of collaboration. The Chair remarked on the high level of attendance under the circumstances. He stressed the importance of maintaining communications beyond the formal sessions and to keep connections and collaboration advancing. Finally, he looked forward to active participation for the meeting.

Decisions - None

Action – None

### Vice-Chair update

Mr Ayoob Saab (Mauritius) Permanent Secretary of the Ministry of Housing and Land Use Planning thanked the Chair for the opportunity to introduce himself to the commission and he wished everybody well in these unprecedented times and in coping with the pandemic. He noted what an honour it is to be part of this commission and provided assurance to give his best attention in the role of Vice Chair. The Vice Chair highlighted the resolve to overcome recent national maritime incidents and the Mauritius Hydrographic Services' (MHS) role level in developing the country's blue economy in the years to come. The Mauritian government is working hard to unlock the blue economy and develop the fishing industry as potential pillars of the national economy in the years to come. Hydrography plays an important role in the realisation of the government of Mauritius' vision. The initiatives to join SAIHC in 1996, IHO in 2005 and the MOU signed between Mauritius and India in the same year have contributed to the progress achieved in the field of Hydrography, particularly in charting and navigating significant areas in the vast EEZ of Mauritius. The publication of 10 navigational charts and correspondence ENC's bear testimony to that. The Hydrographic framework of Mauritius was further consolidated by the establishment of MHS. The MHS is the model agency to meet hydrographic commitments at national level and has completed many tasks to promote projects of national importance with the focus on developing the blue economy. The unit has developed expertise to carry out survey of areas critical for shipping and in deeper waters and outer islands including underwater search. The newly acquired multi beam eco sounder was put to good use by the MHS during the disastrous MV Wakashio grounding incident. The importance of the MHS and inventory of latest hydrographic equipment with the capability to operate them was highlighted during the incident. In wake of Covid-19 the in-house capability was vital to disaster relief operations and provided detailed mapping of the area to facilitate salvage operations. MHS will grow and prosper and with continued support of IHO, SAIHC and member states. The Vice Chair ended by wishing the very best to IHO and SAIHC and encourage more non-IHO members to join the organisation.

Decision – None

Action - None

## IHO Update

Director Abri Kampfner stated he was honoured to address the plenary on behalf of the IHO Secretariat at the opening of the 17<sup>th</sup> conference of SAIHC. He conveyed the good news that the IHO has gained 3 new members; the total number of IHO Member States (MS) now stands at 94 members. Noting that there are still several non-IHO member states in this commission, SAIHC really has the potential to become very influential in IHO matters in the future. New members are an indication that the CB efforts of the IHO and INT Chart contributions of other SAIHC MS are having the desired effect in preparing states to assume hydrographic responsibilities and thereby grow their economies. The success of the IHO depends on the RHC's and individual MS support. The active participation of those nominated by the national hydrographic offices to contribute to the IHO committee, WG's and regional WG's is really important. MS were asked to continue to participate, host and support the IHO meetings and events in particular this commission. RAdm Sparkes and the UK team were thanked for their willingness, enthusiasm, and professionalism in organising this event and to all those that have been involved in the detailed preparation of this conference. It was noted that the meeting offers the opportunity to assess the regional situation and identify key priorities. Noting that the traditional roles of hydrographic services are changing, hydrographic data should be made available where possible. Regarding traditional products the IHO is in discussion on the future of paper charts and a roadmap has been developed for the implementation of S-100 based products and noted the challenges of dual production of S-57 and S-101 ENC's. He wished members a successful meeting.

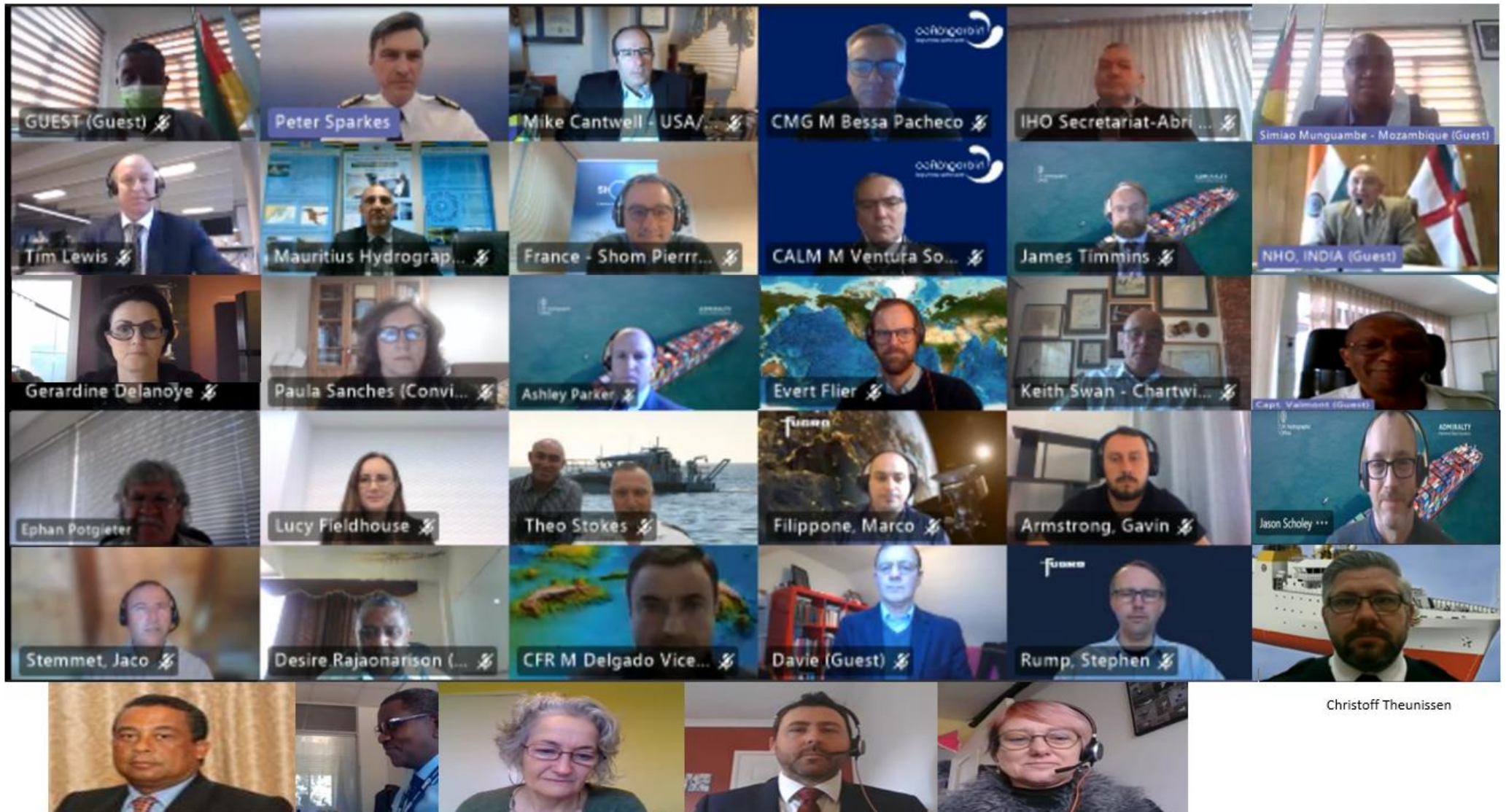
Decision - None

Action - None

The Chair stated that the key strength of the IHO is our ability to cooperate together and not to politicise issues; great care should be taken to not do so during national updates and that the consideration and support of MS is greatly appreciated.

The Chair was pleased to see such broad participation from the region and looked forward to positive discussions. Building on the working groups success in September the attendance is testament to how SAIHC can adapt, improvise, and overcome the difficulties of the pandemic. The Chair voiced his hope that SAIHC18 would meet in person later this year.

17<sup>th</sup> Southern African and Islands Hydrographic Commission  
 17<sup>th</sup> SAIHC Conference Photo



Col. Andre Ciseau

Dave Muli

Liz Hughes

James Harper

Clare Lain

### 1.1 Approval of the Agenda

The Chair commented that the draft agenda was circulated in SAIHC letter 8/2020 and the finalised agenda was circulated 29 January 2021. The Chair invited any additional comment, inputs, questions for the Agenda, with no comments or amendments the agenda was approved. The Chair thanked the Secretary for preparing a full agenda that didn't prompt any further questions.

#### **Decision 1: Approval of the SAIHC 17 agenda**

### 1.2 Approval of 16<sup>th</sup> SAIHC Minutes

The Chair said all feedback was considered and incorporated into the amended draft minutes and they are available on the IHO website. He thanked everybody that provided feedback for incorporation into SAIHC16 minutes. The Secretary confirmed no correspondence had been received and there were no comments from the floor, so the Chair confirmed the SAIHC16 minutes.

#### **Decision 2: Approval of minutes of the SAIHC16 meeting**

### 1.3 Review of 16<sup>th</sup> SAIHC Actions

The Secretary gave an overview of the current SAIHC actions, 40 actions, 22 completed, 7 continuous actions and 11 open actions. The Secretary reviewed the open actions asking for an update where applicable and stated he would follow up via correspondence. From this 7 of the open actions were closed and 4 remained as open/in progress.

Tim Lewis (UK) reminded SAIHC colleagues that he is the designated rep for the IHR review. UK had a submission published last year following a survey in St Helena, on the challenges of surveying in remote locations. He stated he would welcome any articles member states think would be of value to be submitted to the IHR. He also gave an update regarding ENC overlaps with India, confirming that the UK National Hydrographer has written to India Chief Hydrographer on this subject to request a technical working group meeting via VTC at the earliest opportunity.

RAdm Adhir Arora (India) endorsed the UK statement and acknowledged receipt of letter and will be communicating to resolve the overlap issues sooner rather than later.

The Chair stated he was most encouraged by the progress in recent months on this issue.

**Decision 3:** To close action 29 SAIHC16-11 and renew it closer to the time when South Africa is in a position to produce an article to the IHR.

**Decision 4:** Proposal to remove continuous items that are procedural/standing items, and these will be addressed at every SAIHC was endorsed by member states.

### 2.1/2.2 IHO Secretariat Report including Assembly 2 (A2)

Director Abri Kampfer (IHO) gave an overview of the IHO secretariat report and the key points discussed were:

- Regional and IHO membership. In the SAIHC region Angola, Comoros, Kenya, Madagascar, Malawi, Namibia and Tanzania are non IHO members; the IHO secretariat stand ready to assist with the application of memberships as it has done with Lebanon, the last country to join the IHO. SAIHC could have an even more influential voice in IHO matters if we could encourage these countries to join IHO.
- 2<sup>nd</sup> IHO Assembly was structured as 3 daily remote sessions and examined 17 proposals and several reports tabled by member states and the Assembly agreed on 52 decisions. The main outcomes were:
  - I. The new IHO strategic plan
  - II. The S-100 implementation Strategy
  - III. A joint IHO-Singapore innovation and technology laboratory
  - IV. Project on empowering women in hydrography

V. New IHO e-learning center hosted by ROK at the KHOA

VI. IHO Resolution 2/1997

- Capacity building programme success is the improvement of Maritime Safety Information Services in the region
- Crowdsourced Bathymetry and GEBCO support invite MS to indicate positions on conduct of CSB in waters of jurisdiction
- IHO outreach for WHD 21 June 2021 Peak of the Peak 'One hundred years of international cooperation in hydrography'

**Action 1:** Member States to support the IHO Work Programme under the new strategic plan

**Action 2:** UK to send the United Nations Climate Change (COP26) 1-7 November 2021 details to the IHO

Evert Flier (Norway) stated many CB activities have been put on hold due to COVID-19 and allocated budgets moved to this year. We are seeing good development of e-learning courses and welcomed the UK initiative to provide online training in March. CBSC will hold an Intersessional meeting in late February to start the process to adapt CB strategy to reflect changes of the IHO strategic plan. Referenced the CL22/2020 regarding sharing CSB data rather than allowing the activity itself was a better understood letter and we are seeing more responses.

### 2.3 Council 4 Report

Capt. Theo Stokes (South Africa) directed Member States to the detailed C-4 report and provided a presentation on the key topics from C-4, 19 November 2020 (by VTC). The Secretary General confirmed the decision from A-2 of the formal establishment and membership of the Council (next 3 years) and the election of Dr Geneviève Bécharde (Canada) as Chair and Mr Thai Low Ying-Huang (Singapore) as Vice-Chair. The Council will affect and oversee the Strategic Plan focusing on:

- Implementation of the S-100 Roadmap, which included S-100 standards, seamlessly integrated with other data such as navigational aid information and weather
- Technical, operation and regulatory challenges associated with the transition from paper-based products and S-57 ENCs to the S-100 suite of standards and services
- Capacity Building Initiatives supported by E-learning Project (Republic of South Korea).
- Supporting the Empowering of Women in Hydrography
- Providing oversight to the IHO Work Programme and budget
- RHC's are encouraged to implement Strategic Plan and consider during this process, following gap analysis if appropriate, whether our organization and work programmes are fit for purpose, in particular for meeting Goals 2 and 3. Feedback required by C-5

### 2.4 IRCC12 Report

The Chair gave a brief overview on the virtual IRCC12 meeting 6-7 October 2020 noting that many comments had been covered in the IHO report. The key items discussed were:

- The pandemic has had considerable impact on the IHO, RHC, CB and training but highlighted the positive new way of working of inclusivity and cooperation and recognised the benefits of Seabed 2030 and MSDI
- MSDI and GGIM Marine Spatial Data Working Group
- Ocean Mapping Activities, including Crowd Sourced Bathymetry
- Seabed 2030 collaborative project between the Nippon Foundation and GEBCO aim is to inspire the complete mapping of the world's ocean by 2030 and to compile all bathymetric data into the freely available GEBCO Ocean Map
- UN- Decade of Ocean Science: aim to have a clean, healthy, resilient, safe, sustainable, transparent, and accessible ocean. IHO strategic plan goal 3 is 'participating actively in international initiatives related to the knowledge and the sustainable use of the ocean'

The Chair gave an overview of the IRCC actions and asked Member States to note and action accordingly.

Tim Lewis (UK) referenced the IRCC actions that relate to CSB and Seabed2030 project and to reiterate that the Seabed 2030 session prior to plenary invoked a good debate and SAIHC members were alerted to these actions.

**Decision 5:** Cdr. Christoff Theunissen South Africa was endorsed in the position of SAIHC CSB/Seabed2030 Coordinator and South Africa accepted the position.

**Action 3-15:** IRCC12 actions for SAIHC

## 2.5 HSSC12 Report

Director Abri Kampfer (IHO) gave a brief overview of HSSC12 noting the key items:

- Adoption of Edition 6.0.0 of Standards for Hydrographic Surveys S-44.
- Establishment of the new Hydrographic Surveys Working Group (HSWG).
- Adoption of first edition of Mariners' Guide on Accuracy of Depth Information in ENC's (Publication S-67, Ed. 1.0.0, September 2020)
- The Future of the Paper Chart and development under existing IHO standardization framework
- S-100 Product specifications developments and timeline. S-101 ENC's will be in operation 2024
- S-98 Interoperability Specification
- Dual fuel concept of S57 and S-101 and the effects on ECDIS, HO's, RENC's and other International Bodies.
- Suggested principles, that the parallel use of both S-57 and S-101 ENC supporting enhanced user functionality. ECDIS behaviour should not be any less safe and user experience should never be negatively impacted by amending use of any S-100 compliant data products.
- Risk assessment on Dual fuel ENC arrangements, report on options to HO's for future production of S-101 ENC's in conjunction with S-57 maintenance and production will be reported to Council 5

The Chair asked for an update on the IMO work package and whether it was likely to take forward endorsement of S-100 carriage this year, 2021. Director Kampfer stated that the IMO schedule of work had been disrupted by the pandemic. The ECDIS performance standards, including S-101, was within the current biennium of NCSR and that the Maritime Safety Committee had agreed to the review the item, but in 2022-23. It is therefore important that MS continue to develop product specification and products so that when IMO endorse proposal, we can showcase these products.

Capt. Theo Stokes (South Africa) noted the recommendation to continue to prepare for 2024 implementation. South Africa recognises the target of S-101 compliant ENC's together with S-57 and will strive to meet this. As the IMO is slightly misaligned to IHO work programme it makes it a tough deadline.

Pierre-Yves Dupuy (France) made some comments. He mentioned that the HSWG is important in dealing with hydrographic surveys and will look at the extension of SDB standards for chart improvements. With regards to the S-101 development, France support the conversion studies from S-101 to S-57 in addition to S-57 to S-101. It is of importance to improve efficiency discussed at C4 to lower the burden for the "dual fuel" period with the S-57 and S-101 ENC's double coverage.

Tim Lewis (UK) acknowledged the challenging transition and stated UK is contributing to several IHO WG's.

## 2.6 WENDWG10 Report

Jason Scholey (UK) gave an update of the World-Wide Electronic Navigational Chart Database Working Group (WENDWG) noting these key items:

- The WENDWG aim is to facilitate the worldwide availability of ENC's to the users for safe navigation
- The current version of the WEND-100 principles is initially intended for S-101. The principles will be followed by an implementation guide that is flexible and will include specifics for additional S-1XX products and services



- Encourage data availability anywhere in the world, distribution through compatible and coordinated networks, standardization, authority of service and data protection
- MS requested to assist each other in the capacity to deliver S-100
- IRCC to submit a new IHO resolution on WEND-100 Principles to C5 for endorsement, then submission to MS for approval and inclusion in the S-100 implementation roadmap

### 3.1 MSDIWG Report

The MSDIWG Chair Tim Lewis (UK) provided an update since the last online meeting in September 2020 which covered these main points:

- CSB/Seabed 2030 Coordinator role identified
- Meeting convened to advance CSB/Seabed 2030
- Delivered Training in MSDI awareness
- Briefing by IHO MSDIWG Chair

He also made reference to the MSDIWG Annual report delivered to SAIHC delegates (July 2020) and encouraged MS to look at this report and provide any updates to MSDIWG Chair.

The Chair commented on how MSDI is perceived and that in the UK there has been significant investment in Geospatial data infrastructure on land as it is perceived to have more commercial revenue. Nevertheless, we are starting to see a real appreciation of the value of the blue economy and the need to better understand the marine geospatial environment.

**Action 16:** Member States to update the working group on any known MSDI activity in the SAIHC region

**Action 17:** Member States to contact SAIHC CSB/Seabed 2030 Coordinator (South Africa) in the event of any potential opportunities to use the data loggers for regional CSB activity.

### 3.2 ICCWG Report

The ICCWG Chair Alfons Van Craeynest (South Africa) gave an overview of the working group meeting on 7<sup>th</sup> September and summarised these main points:

- Actions arising from the 9<sup>th</sup> ICCWG meeting
- Region H Chart Scheme- total of 125 Int charts, 4 new INT charts produced 2020
- ENC overlaps within region H
- SAIHC ENC scheme – Gridded ENC Option
- Future of the Paper Nautical Chart

Tim Lewis (UK) mentioned that the ENC gridded scheme could be an opportunity to relieve overlap issues, if done well and suggested looking at the scheme in more detail.

Pierre-Yves Dupuy (France) pointed out that ENC management should deal with the production intentions of new ENCs, which would avoid inconsistencies experienced by end-users and which HOs sort out after the fact.

Alfons Van Craeynest (ICCWG Chair) noted France's comments and stated he knows communications are underway and that the overlap is in progress of resolution if not already resolved.

### 3.3 Capacity Building Report

Capacity Building Coordinator Lucy Fieldhouse (UK) addressed the open SAIHC 16 action no. 24 CB coordinator to show the realised benefit of IHO CB activities attended by SAIHC MS to feed into the regional plan. CB coordinator provided the update that this ongoing analysis will be part of a wider piece by the CBSC looking at Key Performance Indicators to show the success/impact of IHO funded CB activities. The main points summarised were:

- CBSC18

- SAIHC 2020 CB
- SAIHC IHO CB activities for 2021
- Wider SAIHC CB activities 2021- MSDI awareness course January 2021, IALA webinars in February on AtoN light Characters and AtoN Maintenance and UKHO virtual training courses in March on understanding ENC's, introduction to S-57 and compiling for navigational safety.
- SAIHC CB Plan 2020-2023

Capt. Theo Stokes (South Africa) asked SAIHC to support South Africa's MSI E-learning package which has been distributed to MS and Associate members for internal review. MS are requested to log on and give comments and to contact South Africa if they needed them to resend log in details. South Africa requested that this e-learning package be considered for inclusion in the IHO Korean e-learning centre, to avoid duplication.

Director Abri Kampfer (IHO) commented that there is an updated list of when IHO secretariat last received C-55 and P-5 updates in the IHO secretariat report and asked for Members to ensure information is correct and updated.

João Vicente (Portugal) thanked the CB coordinator and acknowledged South Africa's work on the MSI e-learning package. Portugal gave an update on the CB Work Programme item for Portugal/Mozambique to conduct ENC training, it does not currently have IHO funding but will be carried out ASAP in order to increase INAHINA capability in ENC production.

**Action 18:** Member States to review the SAIHC CB workplan and submit final requests for CB activities to the CB Coordinator by 5<sup>th</sup> March.

**Action 19:** Member states to inform CB Coordinator of any wider CB opportunities that the SAIHC region can benefit from (ongoing work programme).

### 3.4 Great Lakes Proposal

James Timmins (UK) summarised the African great lakes that are an enormous asset to the SAIHC region. There are many navigable lakes in the region and lake hydrography and charting may have specific challenges. James proposed to establish a specific sub working group to help identify solutions and promote knowledge sharing as well as wider awareness of challenges.

The proposal was supported by SAIHC and Gerardine Delanoye (IALA) who stated there would be no conflict between the maritime buoyage systems for coastal and inland waterways and offered her support with a background on inland waters and rivers.

The Chair suggested funding is needed for this and as a commission we might need to look at 3<sup>rd</sup> party financial support, Asian/World Development Bank. The Chair asked the UK to investigate this to identify funding opportunities to enable activity for those that have a hydrographic interest in the lakes.

**Action 20:** UK to follow up the Great Lake proposal to form a SAIHC sub working group for African Lakes via correspondence and conduct a virtual call with all delegates with an interest in the lakes by April 21.

### 4.1 Fugro: activities in the region and contribution to Seabed2030

Jaco Stemmet and Marco Filippone gave a presentation overview, stating that 5 Fugro vessels are currently engaged in a project within the region to carrying out a range of bathymetric surveys. The internet expansion in Africa has resulted in a remote operation centre to enable real time data processing. Fugro's contribution to Seabed2030 includes:

- In transit bathymetry contributions
- Technology, development, and innovation
- Contribution of client-owned bathymetry
- Spreading the word

Fugro has committed to collect and contribute bathymetric data acquired during the transits of survey vessels to Seabed 2030; this amounts to over 1million Km<sup>2</sup> of transit bathy data contributed to date. Noted success of Ocean mapping between Fugro and Ifremer teams which was the first experience of remote working, they never met in person.

Evert Flier (Norway) recognised Fugro's significant contribution in the region and towards CSB but challenged Fugro on the release of data owned by private companies or government to support Seabed2030 initiative, at an appropriate resolution. Fugro does engage with clients at the starting phase about release of data.

João Vicente (Portugal) asked Fugro if it was possible to make transit data available to coastal states to update nautical charts and stated there seems to be a big delay for data to be sent to the hydrographic office. Fugro responded by saying this was possible most of the time; if it did fall outside the permit regulations then the client would be contacted to request the sharing of data but in general this is something Fugro already do.

#### 4.2 Chartwise: SAIHC HO self-sufficiency a new approach

Keith Swan gave a presentation proposing a new approach for CB phase 3 funding, recognising HOs need to be self-sufficient and the gap between developed and developing HOs is widening 'leave no-one behind'.

- Changing role of Cartographers - background
- Training and consultancy overview
- The Training Needs Analysis (TNA) - the big change
- Costs – appreciate the proposal would be value for money

Keith Swan was advised to submit a paper to CBSC that can address the topic for review of Capacity Building strategy.

#### 5.1 General Bathymetric Charts of the Oceans (GEBCO) and Seabed 2030

Evert Flier Chair of the GEBCO Guiding Committee 'GGC Chair' (Norway) thanked UKHO as Chair of SAIHC for organising the Seabed2030 session and to allow more time to become familiar with the project. He gave a presentation on GEBCO and summarised these key items:

- GEBCO overview of the project of the network and community to contribute to the collective goal of having the most authoritative publicly available bathymetric data set of the world's oceans.
- Seabed 2030 project inspire the complete mapping of the world's ocean by 2030 and to compile all bathymetric data into the freely-available GEBCO Ocean Map due to the decline in ocean health.
- CSB field trials
- Seabed 2030 Ocean Frontier initiatives and Mapping Committee
- Community input requested in the Seabed 2030 image stream – authorise use, assemble content and upload content

##### **Support Seabed 2030 by:**

- I. **Promoting** the vital need to map the entire seabed
- II. **Encouraging** your own organisations, your networks of contacts, and your clients to make existing seabed mapping data available for use by Seabed 2030 in the GEBCO Grid: *Non commercially sensitive/sanitised data if possible, Transit data between projects, and seabed2030.org/contributions*
- III. **Helping** us gather Crowd Sourced Bathymetry (CSB) for use by Seabed 2030 in the GEBCO Grid
- IV. **Supporting** future seabed mapping projects where data can be used by Seabed 2030 in the GEBCO Grid
- V. **Innovating** technology that will accelerate seabed mapping 2030 by promoting the vital need to map the entire seabed

Pierre-Yves Dupuy (France) recognised it was difficult for data to be available to DCDB due to government policies and encouraged as a minimum that meta data be provided.

Evert Flier (GGC Chair) thanked Pierre-Yves Dupuy for raising that issue, stating that it's important to at least have knowledge of where we do actually have data, coherent meta data is a good way of doing that. It is recognised that not everyone is keen to share data through the preferred IHO DCDB mechanism and that some countries are happy for it to be shared in a GEBCO grid, but for no other purposes. Countries are encouraged to engage with the regional centres of Seabed2030; for the SAIHC region this is the Atlantic and Indian Ocean region - Dr Vicki Ferrini from Lamont Earth Observatory. There are several ways to address the issue, France and UK were requested to engage with their PCA nations, to explain Seabed2030 and ask them if they would be willing to contribute data subject to their respective national legislation. Evert stated this is not just a binary problem to contribute or not and that data can be delivered in a smaller scale resolution than a 100m grid and would still make a good contribution overall to the GEBCO grid.

Tim Lewis (UK) stated UK have a number of PCA's in SAIHC and will endeavour to work with those nations with C-55 and link to the request for GEBCO data. He stated the UK has sent data coverage for the SAIHC region to the data centre manager which articulates where we have digital data but not necessarily yet the permissions.

Peter Sparkes (UK) stated that the UKHO are in process of reviewing business strategy and plan to invest in new staff to overcome the data backlog in PCA portfolio with a view to enhancing that and being in a better place to provide contribution.

## 5.2 Crowdsourced Bathymetry (CSB)

Evert Flier (Norway) gave a presentation on CSB summarising the main points:

- The IHO CSB initiative: CSB is the collection of depth measurements from vessels, using standard navigation instruments, whilst engaged in routine maritime operations.
- The value of CSB data is data with scientific, commercial and research value at no direct cost to the public. It potentially fills gaps where bathymetric data is scarce. It is most useful along shallow, complex coastlines, helping to identify uncharted features and assist in verifying chartered information.
- Members were requested to continue to respond to IRCC CL 01/2020 and IHO CL 21/2020 letters.
- Contribute to CSB data, through a network of 'trusted nodes' e.g. organizations, companies and universities and CSB data must be provided in either CSV or GeoJSON, and capture the minimum required information (XYZ, timestamp).
- Seabed 2030-funded CSB field trials.
- The IHO CSB working group welcomes further participation from Hydrographic offices.

Tim Lewis (UK) sees encouraging traction in this area and the data-logger equipment deployment is an exciting prospect. UK's CSB policy is currently under review with government departments and agencies and we hope to have a positive update soon.

## 5.3 International Association of Lighthouse Authorities (IALA)

Gerardine Delanoye gave a presentation overview summarising these main points:

- Plan for the region when travel resumes highlighting costs are paid by IALA. Mission to Tanzania, Review of Mauritius, Comoros, and Madagascar and noting the need to work with the appropriate PCA to check what is on the charts is in place; this is a big challenge.
- Online training courses available and sponsorship available for targeted countries.
- Overview of subjects in Aids to Navigation Management training including Level 2 Technician training.

- Technical webinars 11 Feb and 25 Feb provide the opportunity to ask questions and discuss cases on aids to navigation challenges and micro seminars are available upon request with some examples of a project with Somalia risk assessment using regional data, followed by aids to navigation procurement course.
- Transformation from a Non-Governmental Association to an Inter-Governmental Organization. IALA currently has consultative status in IMO and has MOUs with a number of international organizations. IALA would like an equal status with IMO and IHO to give more power to publications and standards that will stay non-binding. Convention is open for signatures in Paris and 30 states signatures are needed to transform into an Inter-Governmental Organization and this will not change the status of IALA as a consultative technical and not for profit organization and IALA principle aim stays the same and will strengthen considerably by this new IHO status. “Successful voyages and a sustainable planet” will stay as our motto so please “let’s keep the ships off the rocks”.

Tim Lewis (UK) thanked Gerardine and stated it’s great to hear IALA’s expansive work and development. He stated UK are PCA for Tanzania and noting the collaborative history of joint technical missions, the last one in Sudan in the NIOHC region and reinforced the CB initiative to join forces for the mission to Tanzania to add value.

Gerardine Delanoye (IALA) agreed that they could do a joint technical mission.

Col. Andre Ciseau (PMAESA) asked Gerardine if IALA is ready to establish working collaboration with PMAESA of which Gerardine agreed.

### 5.5 Port Management Association of Eastern and Southern Africa (PMAESA)

Col. Andre Ciseau gave an overview presentation on PMAESA covering the main points:

- PMAESA is a non-profit, inter-governmental organization made up of Port Operators, Government Line Ministries, Logistics and Maritime Service Providers and other port and shipping stakeholders from the Eastern, Western and Southern African and Indian Ocean regions. The Secretariat based in Mombasa and has 25 members.
- Activities cover maritime safety and protection of the maritime environment, transit transport, ports operation issues such as port statistics, public and private sector partnerships, communications, cruise industry and regional cooperation and blue economy development in the region.
- PMAESA seeks to promote and nurture best practices among member ports by creating an enabling environment for exchange of information and capacity building to contribute to the economic development of the region.
- Pan African Association for Port Cooperation (PAPC) consists of Port Management Association of West and Central Africa (PMAWCA), Port Management Association of East and Southern Africa (PMAESA) and the Union of Port Administrations of Northern Africa (UAPNA).
- Areas of focus include standardisation, collation and harnessing of information. Providing competence and expertise to members, having collaborative relationships and influence in the policy framework.
- Ongoing initiatives/programmes World Bank/SSATP, UNECA, IMO and Trademark East Africa

The Chair thanked Col. Andre Ciseau for his very interesting presentation and stated PMAESA has a significant regional presence and one that SAIHC would like to work closely with and collaborate.

James Timmins (UK) thanked Col. Andre Ciseau for the presentation and stated the one of the challenges many HO’s have in the region is receiving data from the ports. He asked if there is a way to promote data sharing and awareness of the production of charts to help both the ports and HO’s. He asked if it would be appropriate if we could contact PMAESA to assist with communication with ports.

Col. Andre Ciseau (PMAESA) responded stating this was possible as we are in regular contact with members and have regular forums and technical committees. The port operation committee that meets every quarter is

where we can link with to discuss issues and share information and interests and PMAESA can communicate with members at any time and offer support.

Tim Lewis (UK) stated he was delighted PMAESA has joined the SAIHC community and can see great collaboration opportunities. He asked if it would be possible to present UK's extensive PCA work in the region at one of the body's quarterly meetings.

Col. Andre Ciseau (PMAESA) said it is possible and important to make presentations at the meetings to the senior representatives and we can give you a link to the PMAESA website to share info if it aligns with PMAESA standards.

Evert Flier (Norway) thanked Col. Andre Ciseau and was grateful for PMAESA's participation to expand our network in SAIHC for future cooperation and mentioned that any topics that we discuss please let us know and we can have a mutual partnership.

Col. Andre Ciseau (PMAESA) stated they would be interested in the lake partnership and questions will be asked in the near future for development and infrastructure.

Pierre-Yves Dupuy (France) stated France would be interested in joining the quarterly meeting too.

**Action 21: UK and France to engage with the PMAESA regarding collaboration opportunities and presenting at technical conference and report back at SAIHC18.**

**Action 22: SAIHC Secretary to invite the Nairobi Convention to SAIHC18 meeting to give a presentation brief.**

The Chair closed day 1 and thanked all participants for their helpful presentations and positive discussions and asked that members continue with the spirited cooperation in the region.

## **SAIHC 17 Plenary Day 2 Thursday 4<sup>th</sup> February 2021**

### **5.4 Southern and East African and Islands Regional Group for Safety of Navigation and Marine Environment Protection (SEAIGNEP)**

Tim Lewis (UK) gave a presentation overview on behalf of SEAIGNEP; Capt. Karl Otto Chair and James Collocott Secretary based at SAMSA and covered the main points:

- SEAIGNEP enjoys the support of IALA, IMO, IHO and IOC.
- Functions: Discussion forum on matters of mutual interest related to safety of navigation and marine environment protection. Act as a communication facilitator between the member states of the Group and the International Organisations. Exert regional influence to improve Safety of Navigation and Marine Environment Protection, which also includes coordinated capacity-building measures and to Exert regional influence on behalf of MS with government funding. Facilitate co-ordination and sharing of aids to navigation assets and services. Encourage and organise co-operation in training IHO- UK offering. Promote awareness need to establish internationally agreed aids to navigation and work with IALA.
- The SEAIGNEP database aim is to enhance communication within the region. This is a resource we can link with SAIHC disaster framework.
- Outcome of meeting no. 5 was the need for regional oil spill contingency plan. Regular updating of contact information and other specific information (Data Base & Regional Info). Amendment of the draft Memorandum of Agreement (MOA) for consideration.
- Importance: SEAIGNEP is the only regional group addressing issues related to aids to navigation (AtoN) and other matters of safety of navigation in any region on the African Continent – but needs high-level support to be successful. Can provide support in meeting the Institutions' international legislative responsibilities.

The Chair asked participants to look at the presentation in slower time and encouraged members to update the SEAIGNEP databases when received.

Gerardine (IALA)- AIS(B) responder project is important for these countries to do risk assessments in the futures and in these users are often forgotten and the countries 'micro economy' with fishing vessels needs attention. Host for the next meeting, IALA worldwide academy offer to support the host. Please contact Karl Otto to liaise with him.

**Action 23: SEAIGNEP to send contact database and regional master plan to SAIHC Member States**

**Action 24: SEAIGNEP requests members to update contact database and regional master plan**

**Action 25: If interested in hosting the next SEAIGNEP meeting (towards the end of 2021) please inform the SEAIGNEP Chairman / Secretariat [SEAIGNEP@samsa.org.za](mailto:SEAIGNEP@samsa.org.za)**

## 5.6 International Maritime Organisation (IMO) Role of IMO Technical Cooperation in Implementation of SOLAS Provisions on Safety of Navigation including IMSAS audit

Capt. Dave Muli, based in Nairobi, gave a presentation overview of IMO, and covered the main points:

- IMO helps developing countries improve their ability to comply with international rules.
- IMSAS Audit on implementation- The IMO Member State Audit Scheme is intended to provide an audited Member State with a comprehensive and objective assessment of how effectively it administers and implements those mandatory IMO instruments which are covered by the Scheme
- Country Maritime Profile (CMP) 2012 data collected is used to identify the real tech cooperation needs of developing countries.
- IMO invites coastal states that want to develop or improve their hydrographic capabilities to seek the assistance and support of IHO.

Director Abri Kampfer (IHO) stated the SAIHC region are fortunate to have Capt. Muli as the IMO representative in the area; his presence should be utilised more. Understand the CMP database and audit results are restricted and is only accessible to MS. Is it possible to provide SAIHC CB coordinator a generic report for SAIHC results from the CMP database on the deficiencies and requirements for CB and the IMSAS audit results on hydrographic matters as this will assist the region and the IHO CB initiatives to have a focused approach on the needs of countries within the region.

Capt. Dave Muli (IMO) stated the IMSAS audit can produce a generic report for each country to show common observations e.g. provision of hydrographic surveys, structural, organisational, use of standards. The CMP is specific to the MS and they can populate technical assistance, which is then handled by the technical assistance division, but the request must come from the country e.g. action plan to close audit gaps specific to country.

The Chair stated that UK had undertaken a mock IMSAS audit in 2020 in preparation for 2021 and noted the importance for coastal states to undertake; he stated that UK are happy to share their experience with SAIHC members and South Africa who have an upcoming audit 2021.

Capt. Dave Muli (IMO) is happy to share the schedule when pandemic eases and travel can reoccur for SAIHC region so MS can collaborate.

## 6.0 National Reports

**6.1 France National Report:** Pierre-Yves Dupuy directed members to the full report on the IHO SAIHC webpage and gave a presentation summarising:

- Achievements: Completed survey works and French MSDI portal. SHOM's expertise in building survey vessel and the integration of scientific and IT systems on board.
- Challenges: Mayotte island seismic crisis since May 2018 with the island tilted to the east, Covid-19 has put a hold on Technical visit to Comoros and high-level technical visit to Madagascar.

- Plans that affect the region: Hydrographic survey off Mayotte Island with *Beautemps-Beaupré*, *Geophysical and acoustic campaign in the Mozambique Channel and the deployment of the Survey Vessel Beautemps-Beaupré* in the Indian Ocean in 2023.

Mr Ayoob Saab (Mauritius) wished to place on records the strong objection of the Republic of Mauritius to France's claim in its National Report that the Island of Tromelin is a French Territory. The Island of Tromelin forms an integral part of the territory of the Republic of Mauritius and is not a French territory. The Republic of Mauritius has full and complete sovereignty over the Island of Tromelin, including its maritime zones. The Republic of Mauritius rejects France's sovereignty claim over the Island of Tromelin and does not recognize the validity of the inclusion of the Island of Tromelin in the French Southern and Antarctic Lands (TAAF) or Iles Eparses.

Pierre-Yves Dupuy (France) replied that the SAIHC, and more generally the IHO, is not the framework for addressing the issues of territorial disputes between States and that these subjects must be dealt bilaterally through diplomatic channels.

Post meeting statement made by France:

The French authorities do not recognise any legal value in the Mauritian declaration, which fails to consider that the Island of Tromelin is a French territory over which France has constantly exercised full and total sovereignty. Thus, France enjoys sovereign rights or jurisdiction under international law in the exclusive economic zone adjacent to the Island of Tromelin. SAIHC meetings are not the appropriate place to discuss territorial sovereignty issues, and French authorities will continue to hold constructive dialogue with the Republic of Mauritius on this matter.

The Chair impressed upon colleagues that the strength of IHO is the ability to work together as colleagues and partners and we must take care not to politicise the work that we do. He requested that if colleagues wish to make formal representation they should do so in writing between respective Ministries of Foreign Affairs and not in an RHC session which could derail our activity.

Director Abri Kampfner (IHO) fully supported the Chair's statement and reiterated the importance of RHC's focus on hydrography; the purpose that RHC's were established for. He advised all delegates to stick to this guidance or we will have discussions that we are not equipped to handle. IHO Director Kampfner stated that as a technical consultative Organization it has no view concerning competing claims over the ocean boundaries between states. The IHO remains strictly neutral in the respective interpretation of bi- and multilateral treaties and advises to consult the International Tribunal for the Law of the Sea ITLOS.

My Ayoob Saab (Mauritius) stated it was not the intention to politicise any matters and just wanted it to be placed on record.

**6.2 Mauritius National Report:** Devendra Madhow principal surveyor of MHS gave a presentation summarising:

- Achievements: Procurement of equipment and software. 4 surveys by MHS including the multi beam survey MHS for salvage operations re wreck of MV Wakashio and the successful IMSAS audit February 2020.
- Challenges: Limited local representative of OEM for Survey Equipment and limited support towards repair of survey vessel, engines, DA, and associated accessories. MHS are setting up tide pool soon but lack resources
- Plans that affect the region: MOU between India and Mauritius and thanked the government of India and Indian navy for assistance. 2 new paper charts and ENC's published by India as PCA for Mauritius and the MSDI Mauritius ocean observatory E-platform.

The Chair acknowledged the significant impact of motor tanker MV Wakashio on the eastern shore of Mauritius and commended MHS colleagues for post recovery operations in challenging circumstances.



Lucy Fieldhouse (SAIHC CB Coordinator) thanked Mauritius for the presentation and stated she had made a note of their CB requirements and informed them that the CAT A and Cat B courses won't be in the workplan as these need to be applied for when IHO CL's are published. She strongly encouraged MHS apply, noting the deadline is 19th February.

Tim Lewis (SAIHC MSDI WG Chair) commended Mauritius, with the support of India, for their further advancements. The MSDI WG Chair made note of an MSDI training request, stating that Mauritius attended the UKHO delivered overview awareness course which was more generic around the UN-GGIM 9 strategic pathways. He made reference to the IHO MSDI WG produced and disseminated significant training material but noted I don't believe it is specific to an open source software provider.

**6.3 Mozambique National Report:** Simiao Munguambe gave a presentation summarising:

- **Achievements:** Hydrographic survey at Beira Port and access channel to update the Bathymetry after the passage of Cyclone IDAI and conclusion of the update of the INT7632 – Porto da Beira. Rehabilitation of the main infrastructures and Hydrographic Boat damaged by Cyclone Idai and the Hydrographic Survey at Inhambane Bay, which is in line with the 5yr Government Plan in maritime cabotage.
- **Challenges:** Enhancement of Capacity Building actions to fill the gaps of insufficient qualified personnel in the institutions. Internal Procurement procedures that prevents the acquisition in time of the needed software and equipment to produce hydrographic products and services. The country's vulnerability to natural disasters, will continue being at odds with the country's obligation to continuously provide Marine Safety Information to the users of Sea, and the role of the Beira Port to supply the country and the region.
- **Plans that affect the region:** Establishment of the National Hydrographic Commission, as a body to discuss issues that among others would include the allowed Crowdsourced Bathymetry activities within the Mozambican EEZ and Territorial Waters. Continuously update the Bathymetric Information in the main access channels to the Ports that links Mozambique to the Region

Tim Lewis (UK) thanked Mozambique for the presentation and stated it was good news to hear of the national committee being established which would be a valuable forum for collaboration. He stated the free online training courses in March on understanding ENCs, introduction to S-57 and compiling for navigational safety that the UKHO are running in March and stated it would be a great opportunity for your colleagues to attend.

Simiao Munguambe (Mozambique) thanked UK and said they would be attending these courses.

**6.4 Norway National Report:** Evert Flier gave a presentation summarising:

- **Achievements:** The NHS now has a department that is responsible for managing both quality requirements for nautical products and input from users to make charts are produced where it gives the highest benefit. Developed Digital Nautical Publication infrastructure and Marine Base Maps is now entering its pilot phase of 3 years. Based on the success of MAREANO and demonstrating the benefits to coastal communities, NHS have been able to convince the Norwegian government to engage in this pilot project and commit funds to it.
- **Challenges:** CSB potential is limited with CSB mainly up to 1000m depth and AIS heatmap shows minimal activity in those gaps. NHS lacks data from Scientific cruises (cooperation with Stockholm University) and also look at automated unmanned vessels.
- **Plans that affect the region:** Seismic survey company PSG vessels will share bathymetry information collected using echo sounders with Seabed 2030.

The Chair thanked Norway for the interesting and impressive presentation and thanked Norway for their leadership in so many key areas, noting Norway's 'strong sense of maritime self'.

**6.5 South Africa National Report:** Capt. Theo Stokes directed members to the full report on the IHO SAIHC webpage and gave a presentation summarising:

- **Achievements:** Infrastructure and production software upgrades and training through the Hydrographic Capability Replacement Project to the SANHO has been completed and set to work. As of December 2020, the complete set of 45 (100%) charts has been achieved with the publishing of INT 7052 (SAN 95) in the 1:1 000 000 INT series, and INT 7580 (SAN 88) in the 1:300 000 INT series. Provided support to Mozambique with regards to charting initiatives.
- **Challenges:** The SA Navy Printing Unit in Simon's Town has been the primary means of chart and publication printing. Infrastructure and production software upgrades through the Hydrographic Capability Replacement Project to the SANHO caused disruptions during the reporting period, but the maintenance of products and the dissemination of MSI continued throughout.
- **Plans that affect the region:** Infrastructure and production software upgrades at the SANHO and the launching of new SMBs through the Hydrographic Capability Replacement Project. The Institute of Maritime Technology (IMT), in conjunction with NOAA and the SANHO, is conducting a CSB data collection pilot project for the GEBCO Seabed 2030 project. IMT has received data loggers from

NOAA and field trials are expected to commence early 2021. The introduction of the MSI eLearning package for use throughout the SAIHC and SADC region.

The Chair stated he was interested in the data-logger initiative to aid CSB in the SAIHC region.

John Lowell (USA NGA) thanked South Africa for the update and asked if there was coordination of the MSI e-learning initiative with that of WWNWS. He stated he would reach out to the chair to inform of the progress and the WWNWS Chair may then reach out for comment.

Capt. Theo Stokes (South Africa) stated they have made the working group aware of the initiative and are not aware of any other initiative by the group.

Pierre-Yves Dupuy (France) stated SHOM have also developed a MSI e-learning package (in French) and commented on great development of the MSI e-learning and asked if there is an initiative to deliver this for the IHO Korean e-learning platform.

Capt. Theo Stokes (South Africa) stated they will be making it available after endorsement from our region and this will be done by feedback from MS.

The Chair noted this as an example of great collaborative work in the region and with IHO working groups.

#### **Action 26: MS invited to comment on South Africa MSI E-learning initiative by 31 March 2021**

**6.6 UK National Report:** Tim Lewis directed members to the full report on the IHO SAIHC webpage and gave a presentation summarising:

- **Achievements:** Hydrographic Governance Workshop, MSDI Awareness training, Admiralty Blue Data conference
- **Challenges:** Impact of COVID-19 has limited opportunities for engagement and collaboration. Remote locations and limited resources for data collection. Data access and data needs to meet Blue Economy.
- **Plans that affect the region:** Blue Belt Programme In support of the UN Global Goals for Sustainable Development, the UK Government has committed £20 million to a four-year programme providing long term protection and sustainable management of over four million square kilometres of marine environment across the UK Overseas Territories. UKHO has developed a series of online 1-day training courses that will be delivered from March 2021. The Courses will cover: Understanding ENCs, Introduction to S-57, Compiling for Navigational Safety. IMO Audit – 2021.

The Republic of Mauritius wishes to place on record that it has objected to the maritime zones around the Chagos Archipelago being depicted as a "Marine Protected Reserve" on the navigational chart entitled "Chagos Archipelago to Madagascar".

Mr Ayoob Saab reiterated the fact that he was not politicising any matter but was referring to the Advisory Opinion of the International Court of Justice (ICJ) of 25 February 2019, UN General Assembly Resolution 73/295 and the Judgment delivered on 28 January 2021 by the Special Chamber of the International Tribunal for the Law of the Sea (ITLOS) concerning the illegality of the 'MPA' purportedly established by the United Kingdom around the Chagos Archipelago.

The Chair reiterated that this is not the forum for politicising issues, and this could derail SAIHC activity. He stated that the territory in question is not related to the SAIHC region and falls in the NIOHC region.

**6.10 India National Report:** RAdm Adhir Arora gave a presentation summarising:

- **Achievements:** Indian Naval Hydrographic Department (INHD) has undertaken Hydrographic Surveys both in Indian and International waters. (INHD) is at the forefront of utilization of modern and high-end survey equipment and technologies. Deployment of automated unmanned vessels.
- **Challenges:** Generally, the promulgation of NAVAREA warnings is affected by late receipt of information instead of through national coordinator and absence of fall off report for cancellation.
- **Plans that affect the region:** Hydrographic Cooperation in Region H, Indian ship was deployed for seventy days in Mauritius waters for data collection. Further deployment of ship in 2021 is being considered.

**6.11 Kenya National Report:** Lucy Mburu gave a presentation summarising:

- **Achievements:** Survey of fish landing sites in Lake Victoria and shore lining and extension of vertical controls of Lake Naivasha. Accession to IHO and national strategy on IMO instrument implementation.
- **Challenges:** Lack of practical experience, little or no data sharing by data partners, inadequate expertise in marine cartography, capacity, and funding.
- **Plans that affect the region:** There is need for continuous support for practical training to achieve necessary experience in hydrographic surveys and chart production. Instruments of Accession to IHO will soon be deposited with the Government of Monaco. Kenya is keen on upscaling its capacity in Hydrographic Surveys and Nautical Charting.

Director Abri Kampfer (IHO) asked Lucy to inform IHO regarding the application to join IHO so they can ensure there is no delay in approval from the Monaco government.

James Timmins (UK) thanked Lucy for the presentation and offered support to set up conference call to ensure chart adequacy in the region. He also informed Kenya of the sub working group lake proposal and noted the achievements of lake surveys.

**6.12 Madagascar National Report:** Narizo Rahaingoalison gave a presentation summarising:

- **Challenges:** Administrative arrangement between FTM and SHOM is still in discussion. Integration in IHO is still on the point of object in Parliament. NHC activities are in gestation. The Malagasy actors (FTM, APMF) are preparing to establish a common project in bathymetry in a small area.
- **Plans that affect the region:** The Ministry of National Defence is leading preparations of an International conference in Safety and Security in maritime domain and Blue Economy. Areas targeted are the nations in East Africa and in Indian Ocean, planned in December 2019 – first 2020. However, it did not take place.

Tim Lewis (UK) thanked Madagascar for the really useful update and recalled a previous discussion regarding a future defence maritime security and blue economy conference. He asked if any dates have been set regarding the blue economy conference.

Narizo Rahaingoalison (Madagascar) stated preparations are not yet complete and due to the pandemic, the programme is on hold.

## 6.15 Portugal National Report: João Vicente gave a presentation summarising:

- Achievements: Cooperation in nautical charts co-production between Portugal, Mozambique, and South Africa. The IHO has released an English /Portuguese version of (IHO publication B-6) the guidelines for the Standardisation of Undersea Feature Names and provide necessary information for them to be adopted by the GEBCO Sub-Committee on Undersea Feature Names (SCUFN). This is a result of cooperation and input from Brazil DHN and Portugal IHPT.
- Challenges: The good evolution of the cooperation with Mozambique has allowed the co-production of INT charts. Build ENC production capacity in Mozambique for 2021/22. Regarding the S-100, the implementation of the production of S-101 ENC will be the great challenge in the near future.
- Plans that affect the region: IHPT and MZ INT chart coproduction and IHPT is going to publish New Editions with new information provided by the Angolan Government (surveys and coastline). IHPT & Hydrography and Navigation Directorate of the Brazilian Navy have a new TASK FORCE in order to translate the 6th edition of S-44 - Standards for Hydrographic Surveys to be published in 1<sup>st</sup> semester 2021

Lucy Fieldhouse (SAIHC CB Coordinator) thanked Portugal for their ongoing CB support and noted their request.

Evert Flier (CBSC Chair) commented that CB have a lack of resource that are spread over many needs globally. The prioritisation at present is the phase 1 maritime safety information then the survey capacity and then the hydrographic capacity but we will review CB strategy and will look for input from MS. We will always be dependent on external sponsorship to enable good CB programmes. We cannot depend solely on IHO contributions without significantly raising member contributions which I don't think members would go along that.

The Chair thanked all Members and Associate Members for delivering informative and interesting National Report updates.

**Action 27: SAIHC Secretary to contact Seychelles, Angola, Comoros, Namibia, and Tanzania and ask them to produce a National Report that can be shared on the SAIHC webpage.**

## 7.1 Mauritius MSDI

Harvey Runghen (Mauritius) gave an overview of the Ocean observatory E-platform and thanked the UKHO for the MSDI training.

- Governance: MSP is a process that brings together multiple users of the ocean to make informed and coordinated decisions on human activities to achieve environmental, social, and economic objectives.
- Technology: GEONODE functionalities for unregistered and registered users, 3 main data types of layers, services, and documents. Remote services: WFS (Web Feature Service) and WMS (Web Map Service) are Open Geospatial Consortium (OGC) Open Web Services standards for accessing geographic data over a network. Metadata is "Data about Data" When someone else goes to use your layer, map or document in the future, the metadata provides context and understanding of what the layer, map or document is for and where the data came from.
- People: capacity building training for administrators and end user training.
- Way forward: Provide public access to the E-platform, Ingest historical data & Metadata and different formats & projections. Sharing of data submitted (Assigning permission) and the big data (e.g. lidar, high resolution imagery, bathymetry, ROV). This is still in progress and has not covered all 9 strategic pathways of UN-GGIM IGIF framework.

The Chair thanked Mauritius for their presentation and asked if Mauritius had partnered with industry.

Harvey Runghen (Mauritius) stated they have worked with the expertise of CSIRO government agency of Australia.

Evert Flier (Norway) stated it was good to see the progress of MSDI in your country and a well delivered presentation showing that MSDI is much more than just technology. The intention is for you to have the content of the MSDI portal publicly available and I know that India have done great efforts in helping you product in ENC's in Mauritian waters and was wondering if the data that went into the charts can be made available through your MSDI portal and then if it is publicly available can it be shared to the wider GEBCO seabed2030 grid.

Harvey Runghen (Mauritius) MHS is one of our partners and we have not discussed ENC's and only shapefiles can be ingested, and it will depend on partners for sharing data publicly and we would need to contact MHS and INHO.

## 7.2 S-100

James Harper (IC-ENC, General Manager) gave a general update and overview of what IC-ENC do and looked at S-100 developments. He summarised the IC-ENC S-100 work plan for 2021-2023 focussing at S-101, S-102, S1-22 as the priorities and then S-104 and S-111. IC-ENC aim for S-100 is to:

- Provide help and support to members
- Focus on achieving high quality, timely products ensuring harmony between products and that policies are based on end user needs.
- Management and oversight of distribution chain
- Revenue return to Members (IC-ENC not-for-profit, small fee retained from revenue generated)

The Chair thanked James for the update and commended IC-ENC and the team for the S-100 development. Recognised the advancements of technology and data and connectivity moving at pace in the maritime environment is an exciting opportunity with potential dynamic updates.

Pierre-Yves Dupuy (France) thanked IC-ENC for the presentation and mentioned the advantages to strengthen the cyber security for the delivery of S-100 products notably S-101 ENC's. Responsibility on MS to ensure they have measures in place to provide delivery and distribution of S-100 products via either IC-ENC or PRIMAR.

Clare Lain (UKHO) gave an overview of the S-100 strategy

- Standards development – regulations through IHO working groups
- Collaboration across Commercial and Defence through OEMs and ECDIS manufacturers
- UKHO capability – flexible skilled workforce and infrastructure through production systems

UK summarised the UKHO priorities and roadmap for S-100 and then gave some examples of S-100 work completed including S-101 and S-102 trial data sets which are available on the UKHO Admiralty portal and sponsored OGC pilot for production and user access to S-121. She then gave examples of work in progress including data encryption of test data sets from supply into delivery of the data and the data ingest portal which is live. S-104 dynamic water levels, proof of concept to take live data from port sensors and combining with S-102 and how that may help under keel clearance for ships manoeuvring in ports. The UKHO gridding analysis is underway, and the advantage of a grid structure will serve as the defining structure for interoperability between the component products and supports the IHO S-98 developments. UK encouraged everybody to get involved with the S-100 developments.

The Chair thanked UK for the presentation and acknowledged the significant steps taken on the journey to develop S-100.

## 8.1 SAIHC Disaster Response Plan

Cmdr. Christoff Theunissen (South Africa) directed MS to the full SAIHC disaster response plan and gave an overview of plan to align with IHO resolution 1/2005 to enable SAIHC and its Member States adequate preparedness so as to enable an immediate and appropriate response to any future disaster affecting coastal areas of the region. He stated all coastal States within SAIHC are encouraged to develop contingency plans in advance in order to be prepared in case a disaster occurs. He noted the specific roles and tasks of the Hydrographic Offices will depend on individual national governance structures.

Director Kampfer (IHO) suggested that the contact database from SEAIGNEP is utilised to add value to the disaster response plan.

Cmdr. Christoff Theunissen (South Africa) noted and agreed with the recommendation and will proceed accordingly.

Pierre-Yves Dupuy (France) referenced the case of Lebanon in the Mediterranean and noted that UK, France, Italy, and others offer support in hydrography. He mentioned that it is important that member states prepare and define the procedures before these events occur as it can be difficult to get authorisation to deliver on hydrographic surveying to offer support.

The Chair noted that we have a wide network that can support humanitarian aid and disaster relief and thanked South Africa for their hard work and investment in the SAIHC disaster response plan.

**Action 28: Members are invited to comment on the Draft Framework, and complete the contact details in Annex D**

## 8.2 Maritime Safety, World-Wide Navigational Warnings Service and NAVAREA Coordination

Cmdr. Christoff Theunissen NAVAREA VII Coordinator (South Africa) directed MS to the full WWNWS and NAVAREA report and gave an overview presentation and noted the effects of COVID-19 has resulted in:

- Marked reductions of SafetyNET Messages / Coastal Navigational Warning Messages promulgated from the 2019/20 compared to 2018 and 2017 due to global effects on international shipping and maritime operations.
- As far as capacity is concerned, both the SANHO, Telkom Radio Services and all associated MSI role-players in South Africa maintained operational functions throughout the South African COVID-19 Lockdown period.

South Africa has participated in Iridium training in June 2020 and is still in the negotiations phase in terms signing an agreement between South Africa (represented by Telkom Radio Services) and Iridium. He stated South Africa will comply with IMO and IHO directives regarding the implementation of Iridium as a

GMDSS provider. He mentioned that the deliverables and outputs have decreased over the last 3 years for both SafetyNET and coastal navigational warning messages promulgated.

SAIHC have identified Capacity Building initiatives with MSI as a very important first phase component. Members are invited to submit comments on the South African MSI eLearning Project. encouraged The SANHO training facility MSI

Challenges and concerns were summarised with recommendations Member States are encouraged to communicate MSI matters to the NAVAREA VII Coordinator in order to disseminate these potentially hazardous matters to mariners operating in the relevant areas of interest. Some SAIHC16 open actions relate to MSI matters.

Pierre-Yves Dupuy (France) noting Iridium and the discussion within IMO and CSR asked the question regarding the reasons to have a contract with Iridium for dissemination of navigational warnings. France's understanding is that Iridium service that the final users need to have both systems on board and that progressively NAVAREA coordinator will have to disseminate the warnings through both systems. For

France Iridium is not fully compliant with IMO, but we have identified that for the POLAR regions there is no coverage from Inmarsat so it's something to consider.

Cmdr. Christoff Theunissen (NAVAREA VII Coordinator) stated at WWNWS meetings Iridium gives comprehensive presentations and vigorous discussions. South Africa have not made a final decision and are following IMO, IHO and WWNWS guidelines to discuss a possible contract with Iridium and will communicate to MS and SAIHC. He stated considering the GMDSS services in South Africa is provided by Telkom radio services which are contracted by the Department of Transport for a certain period. We are conducting internal meetings with Telkom radio services and maritime rescue coordination system to discuss Iridium and the way forward.

Evert Flier (Norway) stated they use Iridium for everything North of 75 degrees northern latitude as satellite communication systems are unreliable. Responsibilities for dissemination of MSI is the task of Norwegian Coastal Administration so would need to check with them.

Lucy Fieldhouse (SAIHC CB Coordinator) thanked Christoff for his informative presentation and wanted to express gratitude to South Africa for their support to capacity building. She stated that the IHO has funded an MSI course for SAIHC region in 2021 and will work with Christoff to identify the key people needed to get on the course.

### 8.3 MapAction

Liz Hughes (Chief Executive, MapAction) gave a presentation on the invaluable work that MapAction does as a non-governmental organisation, specialising in providing mapping for humanitarian emergencies. The main points covered were:

- Remote support due to the pandemic to over 20 projects in 2020 and on ground support to Guatemala and Beirut
- Enable those vulnerable to be more resilient and to help those assisting to be more efficient using advanced technology information management.
- Partnership – CDEMA, AHA Centre, CESDRR, UN Agencies, National Authorities, and International Governmental Organisations.
- Connections with data holders saves time in an emergency and automation will increase support
- Information flows and appropriate tools to aid support in emergencies
- Training and knowledge sharing, joint problem solving with partners and develop the use of technologies

The Chair thanked Liz for the presentation and stated he was familiar with the great work that MapAction do and have met many of your colleagues over the years on operations.

Pierre-Yves Dupuy (France) thanked Liz for the presentation and asked what the difficulties are for the data flow. We should consider giving access for the SAIHC disaster plan and MSDI portals information.

Liz Hughes (MapAction) noted numerous gaps in data or the governance of the data. It is important to be on the ground alongside people to clarify issues with basic data sets. For Beirut situational data was needed such as is the port open or closed and colleagues in hydrography can assist with this information. MapAction publish the data unless there is a reason not to do so on our website and on the humanitarian data exchange. We have a formal system for searching for data which we commence when there is an emergency. There are a set of portals we go to for data and are looking at the automation of this in the future. MapAction would be pleased to have access to the SAIHC information and recognised the benefits of joining this information up so there is one point of call.

### 4.3 AML Oceanographic take a simple step forward

David Wilson gave a presentation on ocean sensing solutions focussing on the oceanographic X series instruments/data loggers outlining the benefits of the new orange line of products with the technology promising an improved user experience including these key features:

- Fully exchangeable
- Plug and play sensor configurations and combinations
- Future proof hotspot style Wi-Fi and GPS on 500m loggers
- Bi-directional communication
- New user interface “Sailfish”
- USB-C port for easy data upload and recharging on logger

The Chair thanked all industry participants for their presentations and voiced his hope to see them face to face at the next SAIHC meeting.

### 9.1 AOB

The Chair invited comments from the floor, of which none were received, and the Secretary confirmed none had been sent prior to the meeting.

### 9.2 Election of Chair and Vice Chair

The Chair stated that the UK would be delighted to continue with the Chairmanship of SAIHC and invited Members to put forward and nominations. None were received

**Decision 6: Chair UK and Vice Chair Mauritius to remain in their respective roles.**

### 9.3 Review of Actions and Decisions

Due to time constraints the Chair stated the actions and decisions would be sent out to members for review by correspondence.

### 9.4 Details for the next meeting SAIHC18

Discussions were had about the date of the next SAIHC and the measures to tackle the pandemic to enable a face to face meeting later in the year.

**Decision 7: Mozambique to host SAIHC18 in December 2021 aiming for a face to face meeting**

**Action 29: SAIHC Secretary and Mozambique to agree a date for SAIHC18 in December 2021 and monitor the COVID-19 pandemic to see if a physical meeting is possible.**

The Chair closed the meeting thanking everyone for their warm and generous participation in productive discussions over the last 2 days. He noted even though it's not ideal doing it online, we have shown the power of cooperation to adapt and thanked all participation, presentations, and notes throughout the conference. The Chair also thanked the Secretary for his fantastic work in the preparation for SAIHC and wished everyone well and looked forward to meeting everyone in Mozambique later in the year.



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## Annex A - SAIHC17 Actions

Legend
White: Open
Light grey: Continuous
Light Green: Completed or Closed

No.	Ref	Action	Action By	Due date	Status
1	SAIHC17-2.1	Support the IHO Work Programme under the new strategic plan	SAIHC Member States	C5	Open
2	SAIHC17-2.1	UK to send the United Nations Climate Change (COP26) 1-7 November 2021 details to the IHO	UK	March	Complete
3	IRCC 12/1	RHC to Instruct MS in the divulgation of publication of <a href="#">S-67 Mariners' Guide to Accuracy of Depth Information in Electronic Navigational Charts (ENC)</a> to the Marine Institutions and Education Schools.	SAIHC Chair	IRCC 13	Ongoing
4	IRCC 12/2	Member States to review the paper on the <a href="#">Future of paper Charts</a> and provide feedback on it.	SAIHC Member States	IRCC 13	Ongoing
5	IRCC 12/3	Member States strongly encouraged to continue updating <a href="#">C-55</a> .	SAIHC Member States	IRCC 13	Ongoing
6	IRCC 12/4	RHC to implement the IHO Resolution 2/1997 as amended by A-2.	SAIHC Chair	IRCC 13	Ongoing
7	IRCC 12/6	Invite the Member States who have experience in developing and providing e-Learning contents to share their resources and experiences to the e-Learning PT.	SAIHC Chair	IRCC 13	Ongoing
8	IRCC 12/11	Promote the discussion of any item with relevance to SDI/MSDI/MSP and to take appropriate actions.	SAIHC Chair	IRCC 13	Complete
9	IRCC 12/12	Consider CSB and Seabed 2030 initiatives be permanently added as an agenda item at future RHC meetings.	SAIHC Chair and Member States	IRCC 13	Complete
10	IRCC 12/13 GEBCO Seabed 2030	Encourage Member States to support the CSB initiative with positive actions, such as requiring all research vessels to collect bathymetric data for late uploading, when on passage or when it does not interfere with other research activities	SAIHC Chair and Seabed 2030 Coordinator	IRCC 13	Ongoing

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11	IRCC 12/14	Support the modification of the current “RHC Seabed 2030 Coordinator” to a joint “RHC CSB/Seabed 2030 Coordinator” and provide the identification of the Coordinators	SAIHC Member States	IRCC 13	Complete
12	IRCC 12/16 GEBCO Seabed 2030	Encourage MS to release datasets or subsets into the public domain via the IHO DCDB.	SAIHC Chair, Seabed 2030 Coordinator and Member States	IRCC 13	Ongoing
13	IRCC 12/17 GEBCO Seabed 2030	Encourage Member States to promote the vital need to map the entire seabed.	SAIHC Chair, Seabed 2030 Coordinator & MS	Continuous	Ongoing
14	IRCC 12/19 GEBCO Seabed 2030	Encourage all Member States to make existing seabed mapping data available for use by Seabed 2030 in the GEBCO Grid.	SAIHC Chair, Seabed 2030 Coordinator & MS	Continuous	Ongoing
15	IRCC 12/20 GEBCO Seabed 2030	RHC to participate at Regional level in those actions of the UN Ocean Decade matching with IHO’s new strategic targets (IRCC12-08C).	SAIHC Chair, Seabed 2030 Coordinator & MS	IRCC 13	Ongoing
16	SAIHC17-3.1.1 MSDIWG	Consider and update the working group on any known MSDI activity in the SAIHC region	Member States	SAIHC18	Ongoing
17	SAIHC17-3.1.2 MSDIWG	Contact SAIHC CSB/Seabed 2030 Coordinator (South Africa) in the event of any potential opportunities to use the data loggers for regional CSB activity.	Member States	SAIHC18	Ongoing
18	SAIHC17- 3.3.1 CB	Review the SAIHC CB workplan and submit final requests for CB activities to the CB Coordinator	Member States	5 March	Complete
19	SAIHC17- 3.3.2 CB	Inform CB Coordinator of any wider CB opportunities that the SAIHC region can benefit from	Member States	SAIHC18	Open
20	SAIHC17- 3.4.1 Lakes	Follow up the Great Lake proposal to form a SAIHC sub working group for African Lakes via correspondence and conduct a virtual call with all delegates with an interest in the lakes.	UK	April	Open
21	SAIHC17-5.5	Engage with the PMAESA regarding collaboration opportunities and presenting at technical conference and report back at SAIHC18	UK & France	SAIHC18	Open

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22	SAIHC17-5.6	Invite the Nairobi Convention to SAIHC18 meeting to give a presentation brief	SAIHC Chair	SAIHC18	Open
23	SAIHC17-5.4 SEAIGNEP	SEAIGNEP to send contact database and regional master plan to SAIHC Member States	SEAIGNEP Secretary	SAIHC18	Open
24	SAIHC17-5.4 SEAIGNEP	SEAIGNEP requests members to update contact database and regional master plan	Member States	30 April	Open
25	SAIHC17-5.4.1 SEAIGNEP	If interested in hosting the next SEAIGNEP meeting (towards the end of 2021) please inform the SEAIGNEP Chairman / Secretariat <a href="mailto:SEAIGNEP@samsa.org.za">SEAIGNEP@samsa.org.za</a>	Member States	August	Open
26	SAIHC17-6.5	MS invited to comment on South Africa MSI E-learning initiative	Member States	31 March 2021	Complete
27	SAIHC17-6.1	Contact Seychelles, Angola, Comoros, Namibia, and Tanzania and ask them to produce a National Report that can be shared on the SAIHC webpage	SAIHC Secretary Seychelles, Angola, Comoros, Namibia, Tanzania	April	Open
28	SAIHC17-8.1	Members are invited to comment on the Draft Framework, and complete the contact details in Annex D	Member States	SAIHC18	Open
29	SAIHC17-9.4	Mozambique offered to host SAIHC18 in December 2021. Agree a date for SAIHC18 in December and monitor the COVID-19 pandemic to see if a physical meeting is possible.	SAIHC Secretary & Mozambique	September	Open

Annex B - SAIHC 16 Open Action Items

No.	Agenda Item	Action	Action By	Deadline	Status
10	SAIHC15-14	Angola to provide an update on MSI structure at next SAIHC and send MSI information to both Portugal and South Africa.	Angola	December 2019	Ongoing
11	SAIHC16-5	Mozambique to update next SAIHC on how they have overcome their internal communication issues regarding the coordination of MSI.	Mozambique	SAIHC17	Ongoing

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12	SAIHC15- 14	Comoros requested to improve communication with NAVAREA coordinator	Comoros	December 2019	Ongoing
34	SAIHC16 - 28	Portugal to engage with Angola on MSI warnings.	Portugal and Angola	SAIHC17	Ongoing

Annex C - SAIHC 16 Closed Action Items

No.	Agenda Item	Action	Action By	Deadline	Status
24	SAIHC16 - 21	SAIHC CB Coordinator to show the realised benefit of IHO CB activities attended by SAIHC Member States, to feed into the regional plan.	SAIHC CB Coordinator	SAIHC17	Closed by CB events
25	SAIHC16 - 25	SAIHC Chair to consider inviting Map Action to attend SAIHC17.	SAIHC Chair	1 March 2020	Closed Complete
26	SAIHC16 - 25	SAIHC CB Coordinator/India/South Africa to develop Disaster Response Framework for the SAIHC region.	SAIHC CB Coordinator/ India/South Africa	SAIHC17	Closed, superseded by SAIHC 17-8.1
27	SAIHC16 - 11	IHO Secretariat to provide feedback on status of IHO CL11/2019 - Call for Approval of Edition 2.0.0 of IHO Publication B-12	IHO Secretariat	SAIHC17	Closed, B-12 2.0.0 has been adopted CL28/2019
29	SAIHC16 - 11	South Africa to consider providing an article for IH Review on the development of SANHO hydrographic capability, when delivered.	South Africa	SAIHC17	Closed
31	SAIHC16 - 27.2	SAIHC Member States to note the recommendations from the IALA presentation and act on them as applicable.	SAIHC Member States	SAIHC17	Closed
36	SAIHC16 - 29	SAIHC Member States to support resolving all ENC overlaps by A-2.	SAIHC Member States	21 April 2020	Closed ENC overlaps addressed by ICCWG

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Annex D - SAIHC17 Meeting 3 & 4<sup>th</sup> February Attendees

<b>Members</b>			
<b>No.</b>	<b>Country</b>	<b>Participant</b>	<b>E-mail</b>
1	France	Pierre-Yves Dupuy (Head)	Pierre-yves.dupuy@shom.fr
2	Mauritius	Mohummad Shamad Ayoob Saab (Vice Chair)	mayoobsaab@govmu.org
3	Mozambique	Simiao Munguambe	simiaomunguambe@inahina.gov.mz
4	Mozambique	Sinibaldo De Jesus Varela Canhanga	scanhanga@yahoo.com.br
5	Mozambique	Felix Pelembe	felixpelembe@inahina.gov.mz
6	Norway	Evert Flier (Head)	evert.flier@kartverket.no
7	Seychelles	Joachim Valmont	dg@smsa.sc
8	South Africa	Theo Stokes (Head)	theo.stokes@sanavy.co.za
9	South Africa	Alfons Van Craeynest	hydrosan@iafrica.com
10	South Africa	Christoff Theunissen	hydrosan@iafrica.com
11	United Kingdom	Peter Sparkes (Chair)	Peter.sparkes@ukho.gov.uk
12	United Kingdom	James Timmins	james.timmins@ukho.gov.uk
13	United Kingdom	Tim Lewis	tim.lewis@ukho.gov.uk
14	United Kingdom	Lucy Fieldhouse	lucy.fieldhouse@ukho.gov.uk
15	United Kingdom	Ashley Parker (Secretary)	ashley.parker@ukho.gov.uk
<b>Associate Members</b>			
<b>No.</b>	<b>Country</b>	<b>Participant</b>	<b>E-mail</b>
16	Angola	Manuel Narciso	Mnarciso156@gmail.com
17	Angola	Helder Rufino	Helderufino46.hr@gmail.com
18	India	Adhir Arora	ia-inho@navy.gov.in
19	Kenya	Lucy Mburu	ndumbalucy@gmail.com
20	Madagascar	Jean Désiré Rajaonarison	jdrajaona@gmail.com, ftm@moov.mg
21	Madagascar	Narizo Mahefa Rahaingoalison	rahaingoalison.narizo@gmail.com, ftm@moov.mg
22	Madagascar	Misa Andrianarison	ftm@moov.mg
23	Namibia	Immanuel Hango	i.hango@namport.com.na
24	Portugal	Carlos Ventura Soares (Head)	ventura.soares@hidrografico.pt
25	Portugal	Miguel Bessa Pacheco	dt.dir@hidrografico.pt
26	Portugal	Paula Sanches	paula.sanches@hidrografico.pt
27	Portugal	João Vicente	dt.hi.chf@hidrografico.pt
<b>IHO Secretariat</b>			
<b>No.</b>	<b>Organisation</b>	<b>Participant</b>	<b>E-mail</b>
28	IHO	Abri Kampffer	Abri.kampffer@iho.int
<b>Observers- Countries</b>			
<b>No.</b>	<b>Country</b>	<b>Participant</b>	<b>E-mail</b>
29	US – NGA	John Lowell	john.e.lowell@nga.mil
30	US – NGA	Michael Cantwell	Michael.t.cantwell@nga.mil
<b>Observers - Organisations</b>			
<b>No.</b>	<b>Company</b>	<b>Participant</b>	<b>E-mail</b>
31	IALA	Gerardine Delanoye	gerardine.delanoye@iala-aism.org
32	PMAESA	Col. Andre Ciseau	aciseau@pmaesa.org
33	PMAESA	Mubarak Sodha	msodha@pmaesa.org
34	IMO	Dave Muli	DMuli@imo.org
35	MapAction	Liz Hughes	lhughes@mapaction.org
36	SEAINEP	James Collocott	jcollocott@samsa.org.za

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<b>Observers – Industry</b>			
37	Chartwise Training	Keith Swan	keith@chartwisetraining.com
38	Teledyne CARIS	Justin Hornby	Justin.hornby@teledyne.com
39	AML Oceanographic	David Wilson	David.wilson@amloceanographic.com
40	Fugro	Jaco Stemmet	j.stemmet@fugro.com
41	Fugro	Marco Filippone	m.filippone@fugro.com
42	Fugro	Stephen Rump	s.rump@fugro.com
43	Fugro	Gavin Armstrong	g.armstrong@fugro.com
44	Fugro	Gero Quintin	q.gero@fugro.com
45	Underwater Surveys	Ephan Potgieter	ep@underwatersurveys.com
46	IXblue	Emmanuel Sgherri	emmanuel.sgherri@ixblue.com
<b>Presenters</b>			
47	United Kingdom	Jason Scholey – WENDWG	
48	Mauritius	Devendra Madhow Principal Surveyor of MHS – National Report	
49	Mauritius	Harvey Runghen – Ocean Observatory E-platform MSDI	
50	IC-ENC	James Harper – IC-ENC and S-100	
51	United Kingdom	Clare Lain – UKHO S-100	

Annex E – SAIHC Chair Letter to Mauritius

From: **Rear Admiral Peter Sparkes**

**Acting Chief Executive UKHO,  
UK National Hydrographer**

**and SAIHC Chair**



SAIHC17 Letter No. 10

26 March 2021

Mr Mohummad Shamad Ayoob Saab (via E-Mail to mhou@govmu.org)  
Ministry of Housing and Land use Planning  
Ebene Tower, Plot 52  
Ebene Cybercity

Dear Mohummad Shamad Ayoob Saab,

I am writing, in my capacity as Chair of the Southern African and Islands Hydrographic Commission (SAIHC) in response to your letter of 8<sup>th</sup> March reference CSGEN/MHL/G211/24.

Thank you for the kind words regarding the successful chairmanship of SAIHC 17 in February. I was very enthused by the active and engaging dialogue by all participants, despite the challenges of the virtual environment across many differing time zones. I do hope we can meet in person at SAIHC18 as we begin to emerge from the pandemic and continue the excellent progress already made.

Regarding your letter, I have noted the two paragraphs Mauritius wishes to include within the SAIHC17 minutes. Both France and UK have provided responses to this text.

France has provided the following to be inserted as a record in the minutes:

*The Representative of France, in the person of the Director of Institutional Missions and International Relations of Shom, replied at the same meeting that the SAIHC, and more generally the IHO, is not the framework for addressing the issues of territorial disputes between States and that these subjects must be dealt bilaterally through diplomatic channels.*

In addition, France has provided the following to be added as a post meeting statement:

*The French authorities do not recognise any legal value in the Mauritian declaration, which fails to consider that the Island of Tromelin is a French territory over which France has constantly exercised full and total sovereignty.*

*Thus, France enjoys sovereign rights or jurisdiction under international law in the exclusive economic zone adjacent to the Island of Tromelin. SAIHC meetings are not the appropriate place to discuss territorial sovereignty issues, and French authorities will continue to hold constructive dialogue with the Republic of Mauritius on this matter.*

UK has provided the following response as a post meeting statement:

*The United Kingdom is aware of the judgment delivered on 28 January 2021 by the Special Chamber of the International Tribunal for the Law of the Sea (ITLOS) formed to deal with the dispute concerning delimitation of a maritime boundary claimed by Mauritius to exist between Mauritius and Maldives in the Indian Ocean. The UK is not a party to these proceedings, which can have no effect for the UK or for maritime delimitation between the UK (in respect of BIOT) and the Republic of the Maldives.*


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*The United Kingdom has no doubt about its sovereignty over the territory of BIOT, which has been under continuous British sovereignty since 1814. Mauritius has never held sovereignty over the islands that now form BIOT and the UK does not recognise its claim. The Advisory Opinion issued by the ICJ is not legally binding and UN General Assembly Resolution 73/295 does not and cannot create any legally binding obligations for UN Member States.*

My Director of Data Acquisition at the UKHO will respond by separate correspondence to Mauritius objection to maritime zones.

Finally, please note that the IHO's position as a technical consultative organization remains unchanged as stated during plenary: it has no view concerning competing claims over the ocean boundaries between states. The IHO remains strictly neutral in the respective interpretation of bi- and multilateral treaties and advises to consult the International Tribunal for the Law of the Sea ITLOS. No decisions will be made on the strength thereof as the IHO and the RHC do not have the authority.

Yours sincerely

A handwritten signature in cursive script that reads "Peter Sparkes". Below the signature is a horizontal line.

Rear Admiral Peter Sparkes

Chairman Southern African and Islands Hydrographic Commission (SAIHC)



Enclosure 1 - Mauritius Letter

In reply please quote:

MY REF: CSGEN/MHL/G211/24

YOUR REF:



Ministry of Housing and Land  
Use Planning  
Ebene Tower, Plot 52  
Ebene Cybercity  
Tel. No. : 4016808/09  
Fax No. : 4546328  
Email: mhou@govmu.org  
**08 March 2021**

Dear Rear Admiral Sparkes,

I would like to commend you for the successful Southern African and Islands Hydrographic Commission (SAIHC) 17 plenary meeting held on 3 and 4 February 2021 under your chairmanship.

Following the statement made by Mauritius at that meeting to object to the reference to the Island of Tromelin as a French territory in the National Report of France, I am transmitting, at your request, the following paragraph for inclusion in the minutes of the meeting:

"Mauritius strongly objected to France's claim in its National Report that the Island of Tromelin is a French territory since it has full and complete sovereignty over the Island of Tromelin which forms an integral part of the territory of the Republic of Mauritius. Mauritius also reiterated that it does not recognize the validity of France's inclusion of the Island of Tromelin in the French Southern and Antarctic Lands and "*Iles Eparses*"."

I also wish to officially place on record the objection of Mauritius to the maritime zones around the Chagos Archipelago being depicted as a purported "Marine Protected Reserve" on the navigational chart entitled "Chagos Archipelago to Madagascar" which has been listed in paragraph 3.2 of the UK's National Report among the charts published by the UK Hydrographic Office since the 16<sup>th</sup> SAIHC Conference. In a note of protest addressed on 24 September 2020 to the United Kingdom, Mauritius requested the removal of the purported "Marine Protected Reserve" from navigational charts published by the UK Hydrographic Office, including the aforesaid chart.

The 'marine protected area' purportedly established by the United Kingdom around the Chagos Archipelago has been held to be in breach of the UN Convention on the Law of the Sea by an Arbitral Tribunal in the case of *Mauritius v. United Kingdom*. The illegality of the purported 'MPA' under international law has further been confirmed by the Advisory Opinion of the International Court of Justice (ICJ) of 25 February 2019, UN General Assembly Resolution 73/295 and the Judgment delivered on 28 January 2021 by the Special Chamber

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of the International Tribunal for the Law of the Sea (ITLOS) in the case of *Mauritius v. Maldives*. In its Judgment, the Special Chamber of ITLOS confirmed that the Republic of Mauritius has undisputed sovereignty over the Chagos Archipelago and that the United Kingdom's claim to sovereignty over the Chagos Archipelago is contrary to the authoritative determinations made by the ICJ that the detachment of the Chagos Archipelago from Mauritius was unlawful and that the United Kingdom's continued administration of the Chagos Archipelago constitutes an unlawful act of a continuing character.

The refusal of the United Kingdom to remove the purported "Marine Protected Reserve" area depicted around the Chagos Archipelago on navigational charts published by the UK Hydrographic Office amounts to a blatant violation of international law.

Mauritius requests that the following paragraph be included in the minutes of the SAIHC 17 plenary meeting with regard to its objection to the chart entitled "Chagos Archipelago to Madagascar" referred to in the UK's National Report:

"Referring to the Judgment of the Special Chamber of the International Tribunal for the Law of the Sea on 28 January 2021 which had ruled that Mauritius has undisputed sovereignty over the Chagos Archipelago, Mauritius placed on record its objection to the maritime zones of the Chagos Archipelago being depicted as a purported "Marine Protected Reserve" on the navigational chart entitled "Chagos Archipelago to Madagascar" which had been listed in paragraph 3.2 of the UK's National Report among the list of charts published by the UK National Hydrographic Office since the last SAIHC meeting."

Please accept, Dear Rear Admiral, the assurances of my highest consideration.

Yours sincerely,



**Mohummad Shamad Ayoob Saab**  
Permanent Secretary and Vice Chair of SAIHC

**Rear Admiral Peter Sparkes**  
Acting Chief Executive, UK Hydrographic Office  
UK National Hydrographer  
Chairman of the Southern African and Islands Hydrographic Commission  
United Kingdom

**Copy to: Mr Abri Kampfer, Director, International Hydrographic Organization**

Page 2 of 2

Enclosure 2 - France Letter



Direction des missions institutionnelles  
et des relations internationales  
Division relations extérieures

Rear Admiral Peter Sparkes  
UKHO Acting Chief Executive  
UK National Hydrographer  
SAIHC Chairman  
Admiralty Way, Taunton TA1 2DN,  
Royaume-Uni

M. Mathias Jonas  
Secrétaire général de l'OHI  
Organisation hydrographique internationale  
4b quai Antoine 1er BP 445MC  
98011 MONACO CEDEX  
Principauté de Monaco

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Dossier suivi par l'IETA Julien Smeekaert

Tél. +33 (0) 1 53 66 97 81  
Mail : [julien.smeekaert@shom.fr](mailto:julien.smeekaert@shom.fr)

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BREST, le 15 mars 2021  
N° 009 Shom/DMI/REX/NP

*Subject: France reaction to the statements made by Mauritius at the plenary meeting of the Southern African and Islands Hydrographic Commission (SAIHC)*

*Dear Chairman and Secretary-General,*

*At the SAIHC plenary meeting held by video conference on 3 and 4 February 2021, the Representative of the Republic of Mauritius issued a declaration objecting to the sovereignty of France over the Island of Tromelin and the related maritime spaces, and recalling its position. He further repeatedly insisted that this declaration be included in the written report of the Commission.*

*The Representative of France, in the person of the Director of Institutional Missions and International Relations of Shom, replied at the same meeting that the SAIHC, and more generally the IHO, is not the framework for addressing the issues of territorial disputes between States and that these subjects must be dealt bilaterally through diplomatic channels.*

*In addition to this statement, and in response to the declarations of Mauritius, the following elements are added. The French authorities do not recognise any legal value in the Mauritian declaration, which fails to consider that the Island of Tromelin is a French territory over which France has constantly exercised full and total sovereignty.*

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*Thus, France enjoys sovereign rights or jurisdiction under international law in the exclusive economic zone adjacent to the Island of Tromelin. SAIHC meetings are not the appropriate place to discuss territorial sovereignty issues, and French authorities will continue to hold constructive dialogue with the Republic of Mauritius on this matter.*

*I draw your attention in particular to the sensitivity and risks of including in the report of a Regional Hydrographic Commission (RHC) official statements relating to a territorial dispute between coastal States. This would set a precedent that could lead to similar actions in other RHCs with disputed areas and could result in the emergence of persistent tensions that would undermine international cooperation in areas where the safety of navigation is, above all, at stake.*

*It would therefore seem necessary for the IHO Secretariat and the RHC Chairmen to remind Member States of the stakes of international cooperation within these bodies and of the importance of dealing with territorial disputes at the State level and outside the framework of the IHO and the RHCs so as not to hamper the work carried out by these bodies.*

*In the event that the SAIHC Chairman decides to accede to Mauritius' request and thus to include his statement in the Commission's report, France would then require access to the finalised draft report including this statement in order to exercise its right of reply in the same report (with the risk of upsetting the functioning of the RHCs as indicated above).*

*Yours sincerely,*

*Rear Admiral Laurent Kerléguer, Shom Director General,  
French National Hydrographer.*

Enclosure 3 - UK Letter



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From: Rear Admiral Rhett Hatcher  
Director Data Acquisition

UKHO Reference: 007-21/DDA  
Date: 23 March 2021

Mr Mohummad Shamad Ayoob Saab (via E-Mail to mhou@govmu.org)  
Ministry of Housing and Land use Planning  
Ebene Tower, Plot 52  
Ebene Cybercity

Dear Mohummad Shamad Ayoob Saab,

I trust you and your team are well and that the effects of the pandemic are beginning to ease somewhat in Mauritius.

I am writing on behalf of the UK National Hydrographer in response to your letter of 8th March reference CSGEN/MHL/G211/24, in particular to Mauritius objection to maritime zones. The UK Government response is as follows:

*The United Kingdom rejects the claims made by Mauritius. The United Kingdom's full position in respect to our sovereignty over the British Indian Ocean Territory (BIOT) is set out in the United Kingdom's submission to the report of the Secretary-General (A/74/834) dated 18 May 2020. The United Kingdom has no doubt about its sovereignty over the territory of BIOT, which has been under continuous British sovereignty since 1814. Mauritius has never held sovereignty over the islands that now form BIOT and the UK does not recognise its claim. The Advisory Opinion issued by the ICJ is not legally binding and UN General Assembly Resolution 73/295 does not and cannot create any legally binding obligations for UN Member States.*

*The United Kingdom therefore rejects any assertion that the UKHO has no right to publish any hydrographic documents referring to BIOT and the request to remove the "Marine Protected Reserve" area depicted on all UKHO navigational charts.*

*Mauritius also states that the Marine Protected Area (MPA) established within the Territory by the United Kingdom is illegal. That is not the case. The 2015 UNCLOS Arbitral Award was clear that the Tribunal took no view on the substantive quality or nature of the MPA. The United Kingdom remains committed to working with Mauritius to explore all aspects of its interests in relation to the MPA.*

*The United Kingdom is aware of the judgment delivered on 28 January 2021 by the Special Chamber of the International Tribunal for the Law of the Sea (ITLOS) formed to deal with the dispute concerning delimitation of a maritime boundary claimed by Mauritius to exist between Mauritius and Maldives in the Indian Ocean. The UK is not a party to these proceedings, which can have no effect for the UK or for maritime delimitation between the UK (in respect of BIOT) and the Republic of the Maldives.*

Yours Faithfully,