

18th South West Pacific Hydrographic Commission Meeting (SWPHC18)

17-19 February 2020 – VTC (Wellington, NZ)

Draft Minutes

1. Opening

The Chair and Secretariat formally greeted the participants with a Te reo Māori karakia & mihi (formal greeting)

1.1 Opening Remarks by the Chair of the SWPHC

Mr Adam Greenland (LINZ) welcomed participants and thanked them for their attendance.

1.2 Address by Chief Guest

Mrs Jan Pierce, Deputy Chief Executive, Location Information (LINZ) addressed participants. In her time at LINZ, Jan has seen a shift from traditional paper products to a digital first, data centric environment and particularly encouraged to see this reflected in the IHO Strategic Plan. Jan commented that HOs now have a wider impact on the economic, environmental, social and cultural aspects of our world. And is keen to see future opportunities and new partnerships moving beyond the traditional safety of life at sea, to securing and developing the seas and oceans of the world. The SWP region has an opportunity to embrace this and she encouraged participation in the session on the IHO Strategic Plan (Agenda item 12).

1.3 Address by the IHO Director

Mr Abri Kampfer (IHO Director) addressed the participants noting that it is impossible to ignore the impact of the ongoing pandemic on the global system of transportation and tourism. Both are basic driving forces for maritime activities, for which hydrography provides baseline information. The IHO programme of work has continued despite the pandemic, thanks to smart ways of working. The IHO Assembly and Council resulted in important decisions which reflect the increasing importance of hydrographic information on a wide range of marine matters. The Director acknowledged the place of video conference technology which has allowed many to attend meetings that would usually not attend. He closed by saying this meeting provides an opportunity to assess the regional situation and identify key priorities. Keeping in mind that the traditional activities of HOs is changing and becoming more important in the provision of maritime data.

1.4 Administrative Arrangements

Doc SWPHC18-01A, SWPHC18-01B

Ms Deborah Frost provided the meeting participants with the required housekeeping details particular to a VTC.

2. Agenda

Doc. SWPHC18-02

The Chair introduced the Provisional Agenda (doc. SWPHC18-02). Members were invited to comment and adopt the document. As there were no additional items proposed for discussion, the meeting adopted the agenda.

3. Approval of Minutes of SWPHC17 Meeting

Doc SWPHC18-03

The draft minutes of SWPHC17 had been circulated to the participants earlier. As no comments were received these were adopted as the approved (final) version.

Decision 1: To approve the minutes of SWPHC17 (doc. SWPHC18-03).

4. Matters arising from Minutes of SWPHC17 Meeting

Doc SWPHC18-04: Referring to the list of actions from SWPHC17 the Chair stated that some actions were complete and the remaining were ongoing issues which will continue to be discussed at the Commission meetings and actioned as appropriate.

The Chair and action owners provided updates on the status of the actions as indicated below.

No.	Agenda Item	Action	Responsible	Deadline and Status (20/11/2020)
1	4	to liaise with IALA and SPC to encourage coastal States that are not yet Members to join the SWPHC	Chair	permanent
2	4	to consider identifying opportunities in national/regional/international donor agencies to incorporate hydrography in development projects.	All members	permanent
3	4	to review their entries in the IHO Yearbook and C-55 and to provide the IHO Secretariat with the appropriate updates or to report no change.	All members	permanent
4	4	to consider submitting papers for publication in the International Hydrographic Review	All members	permanent
5	5.3	Chair to identify regional representative on the International Hydrographic Review Editorial Board.	Chair	31 March 2020 (Complete)
6	5.4	SWPHC MSDIWG through correspondence prepare draft ToR and RoP and seek volunteers for Chair and V/Chair among members.	MSDIWG members	31 July 2020 (In progress)
7	6.2	Chair to circulate the draft amended version of the SWPHC Statutes for comments by the Members. (post adoption of Resolution 2/1997 at A-2) Members to provide comments to Chair for collation and adoption prior to SWPHC18.	Chair Members	15 May 2020 (In progress) 15 September 2020
8	9.2	SPC to invite SWPHC Chair and IHO Sec-General/Director to the next meeting of the Pacific Regional Energy and Transport Ministers Meeting.	SPC	Early 2021
9	10.3	All members to provide CB requests to the CB Coordinator.	All members	29 February 2020 (Complete)
10	10.3	CB Coordinator to compile the CB requests for support and submit to the CBSC18 Meeting in coordination with the Chair.	CB Coordinator & Chair	31 March 2020 (Complete)
11	10.4	UK and NZ to work with SPC* and look into how the SWPHC should start addressing the challenges for implementing the SDGs of the UN Decade of Ocean Science for Sustainable Development. (*Office of the Pacific Oceans Commissioner – part of PIF)	UK (Sam Harper - lead), NZ and SPC	SWPHC18

12	15B	Chair to inform IHO Secretariat that Australia has been selected to occupy the seat (on IHO Council) allocated to the SWPHC.	Chair	21 February 2020 (Complete)
13	16A	Chair to inform DCDB Director to refer to national reports as submitted at SWPHC17 Meeting regarding their plans for CSB and Seabed 2030	Chair	29 February 2020 (Complete)
14	16B	IHO Members who have not responded to CL 11/2019 to review Annex B of the CL and consider offering a positive response	Members	Ongoing
15	16B	Chair to circulate Annex B to CL 11/2019 to Non-Members (IHO) in the region Non-Members (IHO) to review CL 11/2019 and consider sending a response to the IHO Secretariat (through the SWPHC secretariat)	Chair Non-Members	29 February 2020 (Complete) On-going
16	16C	Chair to circulate the Draft Disaster Response Framework (version 10/02/2020), requesting Coastal States to Identify points of contact and the means of communication. Chair to collate the information.	Chair All coastal States Chair	29 February 2020 (Complete) 31 May 2020 (In progress)
17	17	Tonga to confirm hosting of SWPHC18 Meeting in Tonga in February 2021	Tonga	end September 2020 (Complete)

Participants updated the actions list and agreed on the following:

SWPHC17 Action 1-4: Member agreed to retain the permanent actions.

SWPHC17 Action 5: AHO to identify a suitable candidate to replace Mike Prince as the regional representative on the International Hydrographic Review Editorial Board.

SWPHC17 Action 8: Due to COVID related travel restrictions, the Pacific Regional Energy and Transport Ministers Meeting did not occur. SPC to invite SWPHC Chair and IHO Sec-General/Director to the next meeting of the Pacific Regional Energy and Transport Ministers Meeting.

SWPHC17 Action 11 closed. This now forms part of SWPHC response to IHO Strategic Plan Goals 2 & 3.

5. SWPHC Statutes

Doc SWPHC18-05

The Chair stated FR and US have provided edits and comments to the Statutes for consideration. Further time is required to prepare a 'redline' version of the Statutes for circulation to Members for comments.

Decision 2: Agree to approve/object the 'redline' version of the SWPHC Statutes via correspondence or at SWPHC19.

Action 8: Chair to circulate 'redline' version of the SWPHC Statutes for comments by the members. Members to approve/object the 'redline' version via correspondence or at SWPHC19.

6. IHO Matters

6.1 IHO Secretariat Report

Doc SWPHC18-06.1

Mr Abri Kampfer (IHO Director) presented the IHO Secretariat Report which included the outcome of the 2nd Session of the IHO Assembly (A2); IHO and SWPHC membership; and the outcome of 4th IHO Council (C4). The following are of note:

2nd Assembly of the IHO (A2)

The main outcomes of A2:

- New IHO Strategic Plan
- S-100 Implementation Strategy
- A joint IHO-Singapore Innovation and Technology Laboratory
- Project on Empowering Women in Hydrography (EWH)
- New IHO e-learning centre hosted by ROK at the KHOA
- IHO Resolution 2-1997

4th IHO Council (C4)

- Dr Geneviève Béchard (Canada) elected as Chair
- Mr Thai Low Ying-Huang (Singapore) elected as Vice-Chair

WHD 2021: *One hundred years of international cooperation in hydrography*

The theme is designed to showcase progress in knowledge and technology over the past 100 years, while celebrating the ground-breaking work which was done during this period. The goal is to highlight the past, present, and future of hydrography by showing the important work of early hydrographers, progress in technology, and state of the art in technology.

US requested confirmation of the scheduled event on brainstorming Strategic Plan Goals 2 and 3 – is there a 'go/ no-go date'? IHO waiting to hear from venue what date to confirm if it will go ahead and looking at options for workshops on specific themes.

US enquired action for brainstorming session about Goals 2 and 3, '*peak of the peak*' event – update on brainstorming event. IHO is looking for partners to host and organise focused workshops on specific themes – ideas welcome.

Commodore Stewart Dunne (AHO), the recently appointed National Hydrographer, took the opportunity to introduce himself to the Commission.

Decision 3: To note IHO Secretariat Report and recommendations (SWPHC18-06.1)

6.2 Highlights of Inter-Regional Coordination Committee (IRCC12)

Doc SWPHC18-06.2A, SWPHC18-06.2B

Mr Adam Greenland attended the IRCC12 virtual meeting in October 2020 as Chair of SWPHC. His report included:

- Highlights from the SWPHC report to IRCC12 noting new members Samoa and Solomon Islands, and changes of Chair, Vice-chair and CB Coordinator.
- Secretariat summary report of RHCs which noted the significant impact COVID-19 pandemic has had on all RHC activities
- Highlights of the HSSC Report (details in agenda item 6.3)

- E-learning activities
- Proposal to include a work item for the IHO Work Plan on Empowering Women in Hydrography (EWH)
- The CSBWG paper on raising the awareness of CSB within RHCs and proposed actions within RHCs to support the IHO CSB initiative
- IRCC Challenges for 2021 (IRCC CL2/2020)

There are a number of recommendations and actions from IRCC12 which SWPHC is working through and will be further progressed during the SWPHC18 meeting.

Member States are encouraged to review the reports submitted to IRCC12 and provide feedback where requested.

SPC requested that the IHO Empowering Women in Hydrography (EWH) event details be shared with the Pacific Woman in Maritime Association (PacWima), at pacwima@gmail.com. IHO Secretariat to follow up.

US commented that the GEBCO Week 2021 MtG Symposium had a session of EWH which was well attended. A report will be provided.

Decision 4: To note the report of the highlights of IRCC12 and recommendations (doc SWPHC18-06.2)

Action 9: Members are encouraged to support, promote and consider participation in the Empowering Women in Hydrography (EWH) project. Members are encouraged to attend the EWH initial workshop in May 2021. IHO Secretariat to send EWH event details to Pacific Woman in Maritime Association (PacWima)

Action 10: Members to review the paper on the Future of the Paper Nautical Chart (FotPNC) dated 28 August 2020 and provide feedback.

6.3 Highlights of Hydrographic Services and Standards Meeting (HSSC12)

Doc SWPHC18-06.3

Ms Nathalie Leidinger (HSSC Vice-Chair) presented the report of the highlights of the meeting. This included:

- Increased focus on Survey Activities and Accuracy on Depth Information
 - Adoption of IHO Standards for Hydrographic Surveys, S-44, Edition 6
 - Establishment of the new Hydrographic Surveys Working Group (HSWG)
 - Adoption of the first edition of Mariner's Guide to Accuracy of Depth Information in Electronic Navigational Charts (ENC), S-67
- Report on the Future of the Paper Nautical Chart
- Other achievements or progress
 - Finalisation of guidance on producing and maintaining HD ENC
 - Extensions to S-63 to address cyber security concerns
- Progression on S-100 Product Specifications developments and Timeline
- Contribution to S-100 Implementation Strategy

NZ commented that the LINZ Hydrographic Survey Specifications (HYSPEC v2.0), based on IHO S-44, was recently published.

Palau raised a concern regarding the phasing out of paper charts, especially as small administrations rely on them to carry out their work. What avenues or products would be available to small Port States if paper charts were withdrawn? US clarified that there are no plans to terminate paper products at the moment. In the future, NGA as PCA will only eliminate paper charts in another nation's waters in consultation with the nation.

Members are encouraged to participate in the new Hydrographic Surveys Working Group (HSWG).

Decision 5: To note the report of the highlights of HSSC12 and recommendations (doc SWPHC18-06.3)

6.4 Highlights of Worldwide ENC Database Working Group (WENDWG10) & Marine Spatial Data Infrastructures Working Group (MSDIWG11)

6.4.1 Doc SWPHC18-06.4A – Mr John Nyberg (WENDWG Chair) presented the highlights of the WENDWG10 meeting and the next version of the WEND-100 principles. The WEND-100 Principles are intended for S-101 and will be followed by an implementation guide for other S-1xx products and services. The Principles encourage data availability, coordination, standardisation and data protection, as well as capacity building. The final principles will be presented to IRCC13 for final review, for IRCC to submit to IHO Council 5 for approval and inclusion in the S-100 Implementation Road Map.

Participants are requested to monitor WEND-100 progress and participate where able.

Members are encouraged to engage with the WENDWG to contribute toward the production of the WEND-100 Implementation Guide.

Decision 6: To note the presentation of the highlights of WENDWG10

6.4.2 Doc SWPHC18-06.4B – Sebastian Carisio (MSDIWG Vice-Chair) presented the highlights of the MSDIWG11 meeting. Sebastian commended the SWPHC on creating a dedicated regional MSDIWG and noted that the regions view of using hydrographic data for purposes beyond the traditional navigation products. Sebastian encouraged SWPHC members to be involved with the MSDIWG to help raise awareness and improve the use of MSDI internationally. An overview of the MSDIWG functions was provided, which include monitoring national and international SDI activities and promoting the use of IHO standards. Resources on MSDI are available on the MSDIWG [‘Body of knowledge’](#) page which includes training material. Participant’s attention was drawn to the MSDI questionnaire as notified in IHO CL56/2019 and the IHO National Geoportal. Members are encouraged to complete the MSDI questionnaire. Sebastian provided an overview of the IHO-OGC Federated Marine SDI (FMSDI) Demonstration Pilot and encouraged participation in the Pilot.

The Chair enquired whether it is possible to track who has accessed the MSDI training material. Sebastian noted that as the material is on IHO website, there may be able a way to do so, however, it was uncertain whether it was automatically tracked.

The Chair would be interested to understand who within the region has responded to the MSDI questionnaire. Sebastian confirmed that this can be done.

The Chair commented that NZ has a project on joining land and sea and would be keen to participate in the FMSDI Pilot. Sebastian advised that the Pilot hasn’t started and is awaiting sponsorship to fund the Pilot, but possible to start later in 2021. Contributions are encouraged, doesn’t have to be monetary but could be data assets. He directed Participants to view the Arctic Special Data Pilot as an example and advised that the Pilot will initially look at the land/sea interface. US advised they are close to committing 25% of funds for the Pilot project but will be looking to other countries for further funding in addition to contribution of data. US encouraged others to participate in the Pilot.

Decision 7: To note the presentation of the highlights of MSDIWG11

Action 11: Members are encouraged to complete MSDI Questionnaire and submit prior to MSDIWG12 (IHO CL 56/2019 refers).

Action 12: Members are encouraged to support and consider participation in the OGC-IHO Federated Marine SDI Demonstration Pilot: FMSDI.

7. Summary of National Reports

Doc SWPHC18-07

Mr Stuart Caie presented a summary of achievements and challenges contained in the ten (10) national reports received.

Achievements

- Risk assessment tools developed by AU and FR
- Increased investment in survey technology (multibeam and Satellite Derived Bathymetry)
- New chart coverage in areas previously charted in fathoms on undetermined datums
- SWPHC MSDI WG held first meeting February
- HO's reviewing and adopting UN-GGIM Integrated Geospatial Information Framework (IGIF)
- Palau participating in a Seabed 2030-funded CSB pilot program

Challenges

- COVID-19 pandemic impacted activities
- Post COVID pandemic re-prioritisation of governments work programmes
- Consultation and engagement regarding withdrawal of paper charts and raster products

The Chair commented that the World Bank has launched an online short course to assist countries to understand the IGIF and how to implement it. The Chair recommended participants to consider attending the course which is free and available to all.

Decision 8: To note the summary of National Reports (SWPHC18-07A)

Individual National Reports submitted are available on website (Doc SWPHC18-07B-07U).

8. Relevant International/Regional Organisations Reports and Activities

8.1 IALA

Doc SWPHC18-08.1

Ms Gerardine Delanoye (Capacity Building and Resources Manager, IALA World Wide Academy (WWA)) presented "Building ATON Capacity in the SWP for Climate Resilience and Sustainable Development". Gerardine noted that COVID has impacted activities globally, however, they plan for a mission to Indonesia when possible. She also stated that IALA WWA has close cooperation with the Pacific Community (SPC) and can conduct missions on request or training for SPC target countries. IALA works closely with Primary Charting Authorities in conducting missions, particularly the charting of AtoN.

Technical webinars have been delivered during the pandemic and are available on the IALA [website](#). The WWA also offers courses on SIRA Risk Assessment; AtoN Procurement; and IWRAP Risk Assessment.

Gerardine provided an update on the transformation of IALA to an Inter-Governmental Organization under the UN. The International Convention to make this transformation is open for signature and ratification by Coastal States.

Participants are reminded that sponsorship, webinars and seminars are available. Participants were encouraged to work towards their country ratifying IALA becoming an Inter-Governmental Organisation

(IGO).

The Chair noted the long-standing relationship between IALA and SWPHC and commented that IALA would be an organisation the Commission would seek to partner with for future capacity building activities related to the IHO Strategic Plan.

The UK enquired of the development of the IWRAP risk assessment tool which IALA advised is progressing along with the PAWSA risk assessment tool.

8.2 IMO

Doc SWPHC18-08.2 – [did not attend]

8.3 SPC (Pacific Community)

Doc SWPHC18-08.3

Mr Salesh Kumar presented about the Geoscience, Energy and Maritime Division of SPC. The following are of note:

- Coastal inundation early warning system developed in Tarawa, Kiribati
- Establishing the Pacific Community Centre for Ocean Science (PCCOS) to provide Pacific Island governments easy access to ocean science and expertise
- SPC/PCCOS research vessel Project - design and construction of a research vessel for the Pacific region

Participants are encouraged to note SPC activities under the Oceans and Maritime Programme and its role and continued involvement in the maritime sector; acknowledge the importance of a safe, green, accessible, and efficient maritime sector under the 2050 Strategy for the Blue Pacific Continent; and agree a consistent and coordinated approach of safety of navigation in the Pacific between countries and interested partners and to engage with IMO through Pacific position papers and formal requests for support.

The Chair requested more information about the PCCOS including the intention of and policy for sharing data. NZ offered SWPHC assistance with the SPC/PCCOS research vessel Project. PCCOS Coordinator contact at SPC is katys@spc.int

The Chair asked SPC for confirmation of the IMO representative in the Pacific. SPC advised this is Ms. Mavis E V Joseph-Logavatu, IMO Technical Cooperation Officer, (mavisj@spc.int).

US queried if SPC is involved with the SWPHC MSDIWG and encouraged them to be involved. The MSDIWG Chair will reach out to SPC.

Decision 9: To note the organisations reports (SWPHC18-08A & SWPHC18-08C)

9. SWPHC Working Groups

9.1 Update from International Charting Coordination Working Group (ICCWG)

9.1.1 Doc SWPHC18-09.1A – Robert Cario (ICCWG Chair) presented the report on the ICCWG. It was noted that AHO, SHOM and UKHO are in the process of producing charts for their areas of responsibility. NOAA plans to end all raster and paper chart production over a five-year period, and is in the process of re-scheming its ENC suite to a rectangular cell-based scheme. The ICCWG Chair advised that the ENC Schemes for Region L is now available on the ICCWG [webpage](#).

US asked whether the region may be moving to a rectangular cell-based ENC scheme. ICCWG Chair

responded by saying that a review of the scheme in the region is a priority for the ICCWG and will be discussed at the upcoming meeting.

9.1.2 Doc SWPHC18-09.1B – Ms Verena Bosselmann-Borsos (LINZ) presented about Project Janus, the over-arching, multi-year project for NZs implementation of S-100. LINZ developed a strategic document, *Preparing New Zealand for e-Navigation*, which describes the importance of moving to S-100, the outcomes and the impact if NZ is not prepared for the future, especially as an island nation reliant on trade by sea. Verena provided an overview of the stages of Project Janus from an assessment of the current source database to the design of a new database and subsequent products and services.

US complemented the presentation and noted that many HOs are struggling with the same thought process. US recognise the similarities with their own approach and are keen to engage with NZ.

9.1.3 Doc SWPHC18-09.1C – Rear Admiral Laurent Kerléguer (SHOM) presented on France's implementation of S-100. Of note is SHOMs approach to testing a number of S-57 to S-101 converters; the future automated production of simplified paper charts from S-101; and the delegation of S-101 to S-57 conversion to PRIMAR to facilitate the 'dual fuel' stage. Rear Admiral Kerléguer noted the need for cooperation across RHCs on S-100 issues, including capacity building and the use of the recently established Joint IHO-Singapore Innovation and Technology Laboratory.

US complemented France's clear strategy for transitioning a HO to S-101 and enquired whether SHOM has considered how larger HOs, who are struggling with this transition, could come together as a group to discuss and build a more cooperative approach to implementation? SHOM agreed that this should be a shared approach and suggested it could be facilitated through the HSSC.

Japan asked how SHOM made the decision to produce S-101 only, rather than S-57 and S-101. SHOM planned to provide dual products but decided to switch as soon as possible so the 'dual-fuel' is not a dual burden. As such the production of a S-57 product will be delegated to their RENC (PRIMAR).

Decision 10: To note the update from ICCWG (SWPHC18-09.9.1A)

Action 13: Members to establish SWPHC WG for sharing experience on S-100 Implementation and identify CB requirements.

9.2 Highlights of the SWPHC Marine Spatial Data Infrastructure Working Group (SWPHC MSDIWG)

9.2.1 Doc SWPHC18-09.2A – Helen Phillips (MSDIWG Chair) provided an update on the WG activities. The first meeting of the WG was held on 4 February 2021 attended by eight participants from Australia, France, New Zealand, PNG, Tonga, UK and US. The WG reviewed the Terms of Reference (ToR) and Rules of Procedure (RoP). The WG will seek opportunities to reach out to other regional organisations, such as Geoscience Australia and the Pacific Geospatial Survey Council, to raise awareness and align to each organisations outcomes.

The WG reviewed the [IHO list of SDI portals](#) and will aim to produce a list of similar portals in the SWP region. Potential initiatives for the WG include the identification of activities to develop best practice for MSDI in alignment with the UN-GGIM IGIF.

Participants are asked to note the report, endorse the RoP and ToR. . Members are encouraged to join and participate in future meetings of the SWPHC MSDIWG. Further information is available on the [IHO website](#).

IIC Technology would like to stay aligned with the MSDIWG and asked whether there is consideration for industry to be represented in group. The MSDIWG Chair noted they hadn't discussed this at the WG nor any training requirements. This will be raised at next meeting, March 2021.

US commented that from their experience with MSDI in other regions, it is beneficial to include industry, NGOs and other subject matter experts in the WG, and suggested the ToR be amended accordingly.

9.2.2 Doc SWPHC18-09.2B – Rachel Gabara (LINZ) presented on the NZ Marine Geospatial Information WG (NZMGIWG), established in 2019, to facilitate national collaboration to grow the value of marine geospatial information. Rachel commented that marine geospatial data contributes greater value to the blue economy than just monetary. It considers cultural, environmental and societal value. The WG is actively advocating the use of hydrographic and marine geospatial data in supporting resilience, coastal development and habitat mapping. NZ has an open data policy which ensures LINZ data is freely available. Rachel showed the outcome of a [partnership](#) between LINZ and a Regional Council to map the seabed and how this data and information is made available.

Rachel outlined the WGs work programme which includes a stocktake of marine geospatial information (MGI) in NZ; a study of MGI data portals; and metadata attributes.

UK enquired of the makeup of the WG and whether LINZ has statutory authority to request data that is outside the publicly funded acquisition. Rachel responded that NZ does have an open policy for central government data, but outside central government there is no mandate to provide or share data. However, through education and outreach, most of the stakeholders are onboard and there is a growing recognition by organisations of the benefit of doing so and a movement to make data available, particularly through collaboration.

The Chair commented that data collected by Marine Science Research vessels in NZ EEZ, under UNCLOS agreements, is requested and expected to be received by NZ government. However, historically NZ has not actively sought out this type of data and there is likely to be other datasets collected that we are unaware of.

US thanked NZ for their involvement with the WG. The WG is working on an IGIF-W, a water themed implementation of the IGIF. A version of the implementation will be available for comment following next month's MSDIWG meeting. This will lead to a roll out in September 2-3 day seminar in Singapore associated with the Innovation and Technology Laboratory.

Decision 11: To note the update from the SWPHC MSDIWG (SWPHC18-09.2A)

Decision 12: Members endorsed the Terms of Reference and Rules of Procedure for the SWPHC MSDIWG.

10. GDMSS, MSI & NAVAREA Coordination Reports

10.1 NAVAREA X Coordinator Report

Doc SWPHC18-10B – Stuart Shepard (NAVAREA X Coordinator) introduced himself and shared the NAVAREA X Coordinator report. Stuart commented that the report should be read in conjunction with the maritime safety information self-assessment report submitted by NAVAREA X to [WWNWS12](#). A reminder that within NAVAREA X the National Coordinators are New Caledonia, PNG, Solomon Islands and Vanuatu.

10.2 NAVAREA XI Coordinator Report

Doc SWPHC18-10C – Shigeru Nakabayashi (NAVAREA XI Coordinator) introduced himself and shared the NAVAREA XI Coordinator report. Full details of the report are available on the [WWNWS12](#) website. Shigeru commented that this is the first SWPHC meeting NAVAREA XI has attended and that the NAVAREA XI region encompasses Kiribati, the Marshall Islands, the Federated States of Micronesia and Palau. Shigeru noted that the Marshall Islands and Palau attended Capacity Building seminar in Indonesia in 2019. Participants were requested to take note of the report. Each state within NAVAREA XI is requested to assign a point of contact for Japan to maintain communication; and are encouraged to attend NAVAREA XI capacity building activities.

10.3 NAVAREA XIV Coordinator Report

Doc SWPHC18-10D – Dave Wilson (NAVAREA XIV Coordinator) shared the NAVAREA XIV Coordinator report. Dave advised that NAVAREA XIV now issues MSI via Inmarsat and Iridium systems. METAREA XIV Coordinator is now under trial with Iridium. Dave pointed participants to the [IHO webpage](#) for an update on the status of Iridium use by NAVAREA/METAREA regions. A reminder that within NAVAREA XIV there are ten National Coordinators. Dave noted that Kiribati is shared by NAVAREA XI and XIV, the majority is in NAVAREA XI and MSI is managed by NAVAREA XI. Good communications continue with the National Coordinators outside NZ including identifying targeted training needs. National Coordinator self-assessments are available.

NAVAREA XIV Coordinator commented on the need to have a consistent reporting template for National Coordinators. A template developed by NAVAREA X and updated by NAVAREA XIV is being used by X & XIV and this is different from the template contained in the National Report template, Annex C.

Decision 13: To note the reports from NAVAREA X, XI & XIV (SWPHC18-10B-10D)

Action 14: Members are encouraged to nominate a point of contact to NAVAREA XI Coordinator and to consider attending CB activities.

Action 15: IHO Secretariat to standardise MSI reporting template for RHCs via National Reports to reflect changes in service providers.

11. Preparations for IHO Revised Strategic Plan

Doc SWPHC18-11

The Chair provided an introduction to Agenda Item 12 outlining the intent and outcomes of the discussion.

12. IHO Revised Strategic Plan

The Chair introduced Agenda Item 12, noting the preparation required by Members as detailed in SWPHC CL 05/2020, in particular, the Gap Analysis for each Coastal State. The Chair commented that this is the start of the process that will lead to a SWPHC work plan.

12.0.1 Doc SWPHC18-12A – Goal 1 Gap Analysis Summary (FR Lead - Laurent Kerléguer)
SHOM provided a summary of the Goal 1 Gap Analysis based on responses from seven (7) Coastal States. The key word is 'efficiency', meaning we will endeavour to produce enhanced products and services for safety-of-navigation, including new modes, such as autonomous navigation. There is also a concern by IHO and HOs for green shipping, in particular the use of information on currents and wind to optimise fuel consumption. Laurent outlined the themes identified in the current state, gaps and actions.

Rear Admiral Kerléguer concluded with potential leads for future work:

- To strengthen user and technical support for HO products and services;
- To set up Governance-Risk-Compliance tools to manage the hydrographic activity; and
- To increase capacity building courses in S-100 implementation.

Rhett Hatcher (UK) introduced himself as the National Hydrographer for the UKHO. He stated that the UK broadly supports the common themes and potential leads as identified by FR and acknowledge the need to leverage capacity across national, regional, and international capabilities. It was also noted that the customer needs to be involved and the challenge that the customer may not be a human as we look to an autonomous world. Rhett reiterated the importance of data quality, particularly with the growth and use crowdsourced bathymetry. He also commented that each HO has business as usual (BAU) to do and the challenge comes in moving to the new S-100 model and maintaining BAU; and then running dual-fuel before solely delivering S-100 products and services.

The Chair queried if the second bullet point is referring to a risk assessment tool and whether there is merit in the IHO taking this on as part of the IHO-Singapore Innovation and Technology Laboratory and develop as a toolbox across the IHO. The Chair also noted that PCA's could gain by sharing across region by establishing a working group. FR acknowledge and concur with comments and stated that FR is ready to contribute to a working group and share their experience with S-100.

The Chair enquired what capacity building courses on S-100 would be needed? FR have asked PRIMAR to set up training based on user needs. To build capacity we must first identify the need within the region. This can then be used to develop a capacity building programme.

The US enquired whether data assurance and cyber-security issues had been included in the summary? FR noted that although this was not specifically identified in the responses, it should be included. FR will review the responses and include an action as appropriate.

The UK commented on the issue to be considered, that of being greener and how the growing use of AI on the growing volume of data, consumes a considerable amount of power and hence a larger carbon footprint.

12.0.2 Doc SWPHC18-12B – Goal 2 Gap Analysis Summary (US Lead - Matt Borbash)
US provided a summary of Goal 2 Gap Analysis. Matt outlined the themes identified in the current state, gaps and actions. Actions of note:

- Establish tracking mechanism for data holdings within the region
- Consider regional data governance guidelines, including data release
- Promote technologies such as CSB, SDB and ALB
- Promote hydrographic governance

- Encourage use of recognised geospatial standards
- Identify current status of the use of UN-GGIM IGIF principles

The Chair commented that there are many existing portals and more are being built. Chair sought clarity from IHO as to whether the intention was for the IHO to build a portal to existing portals to link to, or is each Member State expected to build their own portal? He also commented that Seabed 2030 might be able to help identify gaps in surveying, and with regards to the baseline principles with respects to IGIF, it is noted that the World Bank is establishing a maturity model for the IGIF, that would be of interest.

The MSDIWG Chair (US) commented that the WG has been tasked with conducting a survey of Member's MSDI maturity which would be a good way to track the maturity assessment in the region. This could be one off or annually, maybe included in C-55.

Abri Kampfer (IHO Director) agreed that the consolidation of a single data portal as a single point of truth is a good idea and could be discussed at the Council, particularly if there is support and requirements from other regions.

Helen Phillips (MSDIWG Chair) suggested meeting with Matt Borbash and Sebastian Carisio (MSDIWG Vice-Chair) to discuss further a maturity model for MSDI as identified in the gap analysis.

The Chair shared the work of the World Bank Open Learning Campus and a course which includes a self-assessment of a maturity index which could be used within the region. The course is based on the IGIF nine Strategic Pathways.

12.0.3 Doc SWPHC18-12C – Goal 3 Gap Analysis Summary (UK Lead – Sam Harper)

UK commenced with an update on SWPHC17 Action 11 and a recap on where the action came from and the link to the UN Decade of Ocean Science. Sam noted that since SWPHC17 a new version of the [UN Decade Implementation Plan](#) has been published and of relevance are two Ocean Decade Challenges:

- Through collaboration, develop a comprehensive digital representation of the ocean, including a dynamic ocean map, which provides free and open access for exploring, discovering and visualising past, current and future ocean conditions in a manner relevant to diverse stakeholders; and
- Enhance multi-hazard early warning services for all geophysical, ecological, biological, weather, climate and anthropogenic related ocean and coastal hazards, and mainstream community preparedness and resilience.

Sam commented that with the new version of the Implementation Plan and the IHO Strategic Plan, the need for Action 11 has changed and should now form part of Goal 3 of the IHO Strategic Plan. He then went on to provide a summary of Goal 3 Gap Analysis, outlining the themes identified in the current state, gaps and actions. Observations made were that each response received had a different approach to filling the gaps; most were specific to national challenges, although these will need to be translated to relevant regional ones; further information is needed to inform meeting Goal 3; and that Goal 3 supports the delivery of Goal 2. In summary:

Gaps	Actions
Consistency of MSI proficiency	- Strengthen MSI training offering and associated governance
Lack coordinated approach and visibility to international initiatives	- Map international Ocean Affairs landscape - Identify associated value chains - Be present at key events e.g. Multi-lateral Development Banks annual meetings
Clear linkages between SWPHC work Plan/CB plan and UN Decade	- Develop ideas and associated plan for submission of Decade Actions and representation
Visibility in Ocean Science/policy making domain	- Build evidence base to support bids/inclusion in initiatives - Clear policy briefs on critical issues
Communications and outreach	- Develop Comms Plan

Sam offered the following considerations for next steps:

- Do we have all the SPIs we need for the region (region specific performance indicators)?
- Do we need to combine Goal 2 and 3 in our analysis of gaps and associate actions?
- To what extent can we use the CB fund for catalytic activity for the region?
- Should we develop a theory of change model to support the SWPHC work plan?

The Chair agreed that there is a case for combining Goals 2 and 3, and agreed that as a region we are unclear of what other international initiatives are occurring in the region.

The Chair suggested further work is required on the SPIs and to consider region specific SPIs. US suggested socialising ideas and seek feedback from other RHCs and present to IRCC. Abri Kampfer (IHO Director) agreed that this is a discussion for IRCC and recognising that the SWPHC is one of the first RHCs to start this work, other RHCs will have a view and will feed into IRCC. Shigeru Nakabayashi (Japan) commented that the EAHC has had similar discussions and concludes that not all SPIs should be measured by regional levels. Yanuar Handwiono (Indonesia) added that the EAHC has adopted the SPIs based on priority related to the regions collaborative response and agreed as Regional action agenda and capacity building program.

Geneviève Béchard (Canada) advised she met with chairs of IRCC and HSSC to discuss the performance indicators and noted that this is a year of reflection on the Strategic Plan. She suggested that some of the questions raised during this meeting should be shared early with the chair of IRCC, as other RHCs prepare for their meetings. By next Council (C5) meeting it is hoped that the SPIs will have been tested and a decision will be made as to which ones will be kept for the following 5 years.

Action 16: Chair to share Gap Analyses, summary analysis and VTC recording of agenda item 12 with IHO Council, IRCC and RHCs.

Individual Coastal States' gap analysis (Doc SWPHC18-12D-12U) are available on the website.

12.1 IHO Strategic Plan actions identified to develop SWPHC work plan

Doc SWPHC18-12.1 – Action Plan (AU and SWPHC CB Coordinator lead).

Matt Borbash (SWPHC CB Coordinator) and Stewart Dunne (AU) provided observations on initial actions identified. Two overarching themes were noted:

- a need for a regional focus of IHO Strategic Plan with regional measures for effectiveness
- a need for ongoing regional sharing and communications regarding the transition to S-1xx products and services

For the individual goals:

Goal 1

- Share and collaborate S-100 implementation strategies among members
- Establish a S-100 implementation Working Group
- Identify/Develop Capacity Building tools for S-1XX implementation
- Identify available (or support development of) Risk Assessment tool(s) to analyse and prioritize regional marine/environmental hazards
- Emphasize “hydrographic information” and de-emphasize “hydrographic data” in all Capacity Building efforts

Goal 2

- Leverage the MSDIWG Maturity Assessment effort to establish a regional MSDI baseline
- Conduct a regional inventory of operational Portals; consider establishing a SWPHC Portal; work with IHO in developing Portal-of-Portals
- Being mindful of regional initiatives, identify data gaps and focus survey efforts to avoid duplication
- Promote more Capacity Building focused, partnered surveys among Member States and PCAs to increase awareness of new survey tools and techniques
- Prepare the region for operationalization of a Geospatial Information Framework; build awareness of World Bank sponsored virtual training

Goal 3

- Continue to emphasize basic through advanced level MSI training
- Establish a cohesive awareness of regional Ocean/Marine Affairs and/or Policy initiatives and priorities
- Develop a common understanding of regional initiatives and understand our role in contributing to them
- Ensure SWPHC activities are deliberately aligned to UN Decade initiatives
- Explore “Catalytic” Capacity Building activities and seek IHO funding to resource
- Consider implementing a “Theory of Change” model to organize the SWPHC Work Plan

Decision 14: Establish a working group to develop SWPHC 3-6 year draft work plan and priorities to achieve the Goals and Targets of the IHO Strategic Plan.

Action 17: CB Coordinator & AU to produce summary document of actions and themes identified from agenda item 12. Chair to share with IHO Council, IRCC and RHCs.

Action 18: Chair to establish a WG to develop SWPHC 3-6 year draft work plan and priorities. WG to review actions and themes identified from agenda item 12 and develop SWPHC 3-6 year draft work plan and priorities.

13. Capacity Building

Doc SWPHC18-13A, SWPHC18-13B, SWPHC18-13C

Matt Borbash (CB Coordinator) presented CBSC18 highlights, reviewed the PICTs Matrix and the 3-year CB Plan. The SWPHC report to CBSC is available on the [IHO website](#). Capacity building activities planned for 2021 are likely to be deferred to 2022 due to COVID-19 pandemic. In particular, there is a preference to conduct MSI training in person, rather than remotely.

Rear Admiral Shep Smith (US) commented that as everyone is affected by the transition to S-100 there is a need to determine what CB activity is required and what would it entail. Matt commented that as HOs start the implementation process, the lessons learned will form CB activities. The Chair commented that the industry partners will be able to contribute to the discussion.

John Lowell (US) advised of remote learning MSI programme which will be rolled out through the WWNWS and allow other nations translate for their use. South Africa are also developing similar material. The Chair advised that SHOM has also developed on-line training material. Abri Kampfer (IHO Director) provided more detail about the South African training course delivered through ROK e-Learning platform.

Decision 15: To note the highlights of the report of CBSC18 (SWPHC18-13A)

13.1 Future Capacity Building Initiatives

Doc SWPHC18-13.1

Chair noted the tight timeframes for submitting to CBSC19. CB Coordinator to prepare a submission for CBSC19 for a Disaster Framework workshop to accompany SWPHC19.

Action 19: All Members to provide CB requests to the CB Coordinator.

Action 20: CB Coordinator to compile the CB requests and submit to the CBSC19 in coordination with the Chair.

13.2 Regional Capacity Building Initiatives

13.2.1 Doc SWPHC18-13.2A – Commonwealth Marine Economies (CME) – Sam Harper (UK) presented a summary of activities.

13.2.2 Doc SWPHC18-13.2B – Pacific Regional Navigation Initiative (PRNI) – Stuart Caie (NZ) presented a summary of activities.

13.2.3 Doc SWPHC18-13.2C – Safety of Navigation Project (SoN) – Francesca Pradelli (SPC) presented a summary of activities. Of note are new guidelines on AtoN. Member states are welcome to request copies of this.

Decision 16: To note the highlights of Regional Capacity Building Initiatives (SWPHC18-13.2A to 13.2C)

14. GEBCO and Seabed2030

14.1 GEBCO Seabed2030 Project

Doc SWPHC18-14.1

Jamie McMichael-Phillips (Project Director, Seabed 2030) presented an overview of the Seabed 2030 Project and recent activities, including Crowdsourced Bathymetry (CSB) field trials in Palau, South Africa

and Greenland. Jamie introduced the Ocean Frontier Mapping Initiative which provides funding for; vessel days for missions to 'frontier regions'; MBES operators to collect bathymetry on cruises where no bathymetry would otherwise be collected; and testing of 'frontier technologies'. Jamie encouraged Members to complete the Community Survey (<https://seabed2030.org/survey>) that gathers information about data needs, priority areas, access to available data. In addition, Members were encouraged to submit images of Seabed 2030 projects to <https://seabed2030.org/seabed-2030-image-stream>.

Action 21: Members to complete the Seabed 2030 Community Survey

Action 22: Members to provide images to the Seabed 2030 Image Stream

Rear Admiral Shep Smith (US) asked what is the role of the Commission in Seabed 2030, specifically how should we organise ourselves to be most helpful? Jamie responded RHCs are to encourage Member States to contribute data to the GEBCO grid, especially review policy on data restrictions.

Decision 17: To note the report of the GEBCO Seabed 2030 project (SWPHC18-14.1)

14.2 Seabed2030 South and West Pacific Regional Center (SaWPaC)

Doc SWPHC18-14.2

Mr Kevin MacKay (Center Head) and Dr Evgenia Bazhenova presented an overview of the SaWPaC. Kevin gave an overview of the GEBCO Gridded Bathymetry Data, which includes a Type Identifier Grid that provides information on the types of source data used in the grid. Although the grid resolution is currently 15 arc-seconds, it will ultimately be a variable resolution grid by 2030.

A break-down of the data coverage for each RHC was provided. For SWPHC, <10% of the region's seafloor has a physical measurement (MBES or SBES).

Members were encouraged to contribute data to SaWPaC using the form available on the website [Contributing Data \(gebco.net\)](http://www.gebco.net).

Kevin further commented that the UN General Assembly resolution ([A/RES/72/73 - Oceans and the law of the sea, para 285](#)) that created the Ocean Decade, calls on nations to actively share data with initiatives. Any nation that contributes data to Seabed 2030 is therefore actively participating in the Ocean Decade and can report that back to the UN General Assembly.

Decision 18: To note the update on the Seabed 2030 SaWPaC activities (doc. SWPHC18-14.2)

Action 23: Members to provide bathymetric data to the Seabed2030 Project using the Contributing data form.

Sam Harper (UK) noted the direct links to the Strategic Plan Goal 2 gap analysis and what needs to be considered for the SWPHC work plan, in particular how do we create the information and material to get broader support of governments?

14.3 Crowdsourced Bathymetry (CSB) / IHO Data Centre for Digital Bathymetry (DCDB)

Doc SWPHC18-14.3

Ms Jennifer Jencks (Director, IHO DCDB & Chair CSBWG) presented an overview of the IHO DCDB. Jennifer encouraged Members to contribute data to the DCDB through the webpage <https://www.ngdc.noaa.gov/iho/> and showed the extent of data contributed since SWPHC17.

Jennifer then provided an update on CSB activities and initiatives, and listed those SWPHC Coastal States who have responded positively to IHO CL 11/2019 Annex B and confirmed that Fiji had submitted a positive response. Also noted that negative responses to IHO CL for CSB would not be made public.

The CSBWG9 intended to be an industry forum to reach out for more participants for use system data loggers.

John Lowell (US) commented that data loggers are in common use and CSB is being collected in waters of national jurisdiction. However, nations aren't aware the data is being collected or have access to the data to make it available. Nation's need to decide whether they are willing to take part in CSB activities. John also clarified that nation's may have responded negatively to the CL 11/2019 but the IHO only lists those nation's that have responded positively.

Decision 19: To note the update on the CSB & IHO DCDB activities (doc. SWPHC18-14.3)

Action 24: IHO Members to review their policy on data release and consider submitting a positive response to CL 21/2020 (IHO CSB Data for Public Domain).

Action 25: Non-members (IHO) to review their policy on data release and consider submitting a positive response to IRCC CL 01/2020 (CSB Data for Public Domain).

15. 5th IHO Council Meeting (C5)

Items the SWPHC would like to share through to the IRCC to Council:

- Formalise the Strategic Plan gap analysis outcomes and socialise with IRCC.
- Questions about S100 and CB activities

Action 26: Chair and SWPHC Council Representative (AU) to raise relevance of IHO Strategic Plan SPIs for Goals 2 & 3 for RHCs and explore appropriate S-100 CB activities.

16. SWPHC Disaster Response Framework

Doc SWPHC18-16

Mr Stuart Caie (NZ) provided an update on the SWPHC Disaster Response Framework (DRF). Coastal States were reminded to identify points of contact and means of communications. Further work is required to clearly define the objective of the framework and roles & responsibilities; improve document clarity; and create the necessary templates.

Decision 20: To note the update on the SWPHC Disaster Response Framework (DRF) (doc. SWPHC18-16).

Decision 21: Agree to continue the development of the DRF by correspondence.

Decision 22: Establish a WG to review the SWPHC DRF.

Action 27: Coastal States to identify points of contact and means of communications for the SWPHC Disaster Response Framework.

Action 28: SWPHC WG to review the SWPHC Disaster Response Framework, to produce a 'redline' version and distribute to Members.

17. Other Business

Mr Stuart Caie (NZ) discussed World Hydrography Day (WHD) 2021 '**One hundred years of international cooperation in hydrography**'. NZ suggest each Coastal State create a short 1-minute video about their experience of international cooperation. NZ will collate videos into a SWPHC clip to share on WHD 2021. Others are encouraged to submit feedback on this idea or other ideas for the region.

Action 29: Members to consider producing content for WHD 2021.

18. NGA's AIS Web Mapping Service

Doc SWPHC18-18

John Lowell (NGA) presented on 'Leveraging Automatic Identification Systems to map global maritime vessel traffic'. NGA are producing a global monthly raster grid of vessel traffic, by vessel type, at 1 km resolution. The grid is based on historic Satellite AIS data and live feeds. The intent is to provide a broad understanding of vessel traffic on a global or regional scale. The information is of value to decision makers to contribute to the vessel environment and building a safer maritime transportation system.

The service will undergo user testing and NZ has offered to take part in beta testing the output.

John Lowell encouraged participants to read the EMODnet paper "[EU Vessel density map, Detailed method](#)"

19. NOAA ESTOFS

Doc SWPHC18-19

Dr Greg Seroka (NOAA) presented on NOAA's Global Extratropical Storm Surge and Tide Operational Forecast System (Global ESTOFS). The ESTOFS model has a resolution of at least 1.5km and up to 80m, globally. The model provides 7-day water level forecasts, four times a day. Of interest is the Pacific Enhancement Project which will provide water level forecast guidance and surface currents for navigation. The end goal is to support under keel clearance and route planning. The Global ESTOFS can be accessed at <https://nowcoast.noaa.gov/>. Greg stated NOAA can provide training workshops for the end user community.

The Chair commented that the Commission would be interested in a training workshop as a capacity building activity.

Action 30: US to host and conduct a NOAA ESTOFS workshop for the SWPHC to learn how to use the model forecast guidance.

20. Industry/ Expert Contributors

20.1 EOMAP

Doc SWPHC18-20.1

Dr Magnus Wettle presented on recent projects and upcoming developments in SDB. He also advised a working group is to be established in April to consider standards and best practice, and for participants to consider joining.

20.2 IIC Technologies

Doc SWPHC18-20.2

Dave Crossman presented on IIC Activities, including regional capacity building. Remote learning programme (online and regionally onsite) is taking registrations for courses starting 2022, recognised by IBSC.

20.3 P&O Cruises Australia

Doc SWPHC18-20.3

Mike Drake presented on 'IHO recommended scale ENC coverage in SW Pacific Ports and other confined coastal areas'. Mike commented that to fully utilise the safety benefits of ECDIS, the ENC needs to be

improved. He noted the need to have ENC's at appropriate scales compatible with radar ranges used for berthing.

John Lowell (US) enquired whether they had considered the potential of using CSB data loggers to collect bathymetry data. Mike commented they would be open to it if it results in an end product.

20.4 Teledyne CARIS

Doc SWPHC18-20.4

Daniel Kruiemel presented on 'Introducing the Teledyne CARIS S-100 Sandbox' to allow users gain S-100 experience and knowledge to be prepared for S-100 production.

20.5 Fugro

Doc SWPHC18-20.5

Mark Sinclair presented an update on projects including those in Tuvalu and Palau. While primarily collecting data for customer, they strive to encourage outreach to nations to release their data.

Shep Smith (US) enquired whether Fugro have any clients that specify target or limitation in reducing the carbon footprint for surveys. Mark responded that although this is not a requirement, it is something Fugro consider.

20.6 SevenCs

Doc SWPHC18-20.6

Yee Wei Loh presented 'Next Generation Products to Support S-100' which provided an overview of SevenCs involvement with S-100 WG, S-101 and S-102 Project Teams; the use S-102 in Personal Pilot Units (PPU); validation tools for high density ENC; and ENC bathymetry plotter.

20.7 SafeQuadrant

Doc SWPHC18-20.7

Rod Nairn presented on 'NZ MFaT Review of Maritime Safety Programmes – PRNI, PMSP & PIDSS', the purpose of which is to provide an assessment of MFAT's portfolio of maritime activities, in order to support future programme design and provide an evidence base for making future funding decisions on maritime investments.

Sam Harper (UK) enquired if, with UK's work in the region, there is the opportunity to share the review methodology and results. SafeQuadrant acknowledge the number of programmes in operation; this is NZ focused and looking at value in relation to these programmes and others.

21. Election of SWPHC CSB/ Seabed 2030 Coordinator

One expression of interest in the position – Mr Stuart Caie (NZ). Support from AU, VU, US.

Decision 23: To appoint Stuart Caie (LINZ) as the SWPHC CSB/Seabed 2030 Coordinator.

22. Election of Chair/ Vice-Chair

No other nominations for the role of Chair. Mr Adam Greenland to continue as Chair of the SWPHC.

No nominations for Vice-Chair received.

Fiji nominated Tonga for Vice-Chair. If Tonga are unable to stand, Fiji will stand as Vice-Chair.

Decision 24: To elect NZ as Chair of the SWPHC

Action 31: Tonga to confirm SWPHC Vice-Chair position.

23. Review of the Actions and Decisions

Doc SWPHC18-23

The Actions and Decisions were reviewed and agreed (SWPHC18-23).

24. Date and Venue of SWPHC19

Given the global pandemic, the Chair thought it is likely that SWPHC19 will be online. However, if this is not the case, a host is requested.

Vanuatu will consider hosting SWPHC19 and will confirm before June 2021.

Decision 25: To hold the next meeting (SWPHC19) in Vanuatu (TBC) in February 2022

Action 32: Vanuatu to confirm hosting SWPHC19 meeting in Vanuatu in February 2022.

25. Closing Remarks

Chair closed the meeting, thanking the participants for their engagement and contributions to the meeting, while recognising the difficulties of the online forum. The meeting was challenging, whilst working through the reporting back of the past year, the meeting has also made a start on developing our thinking on a 3-6 year work plan for the SWPHC based on achieving the Goals in the IHO Strategic Plan; and focused attention on developing appropriate SPIs for the region.

DRAFT