

12th South West Pacific Hydrographic Commission Meeting

**12th – 14th November 2013
Port Vila, Vanuatu**

Minutes

1. Opening

1.1 Opening Remarks by Hosts

The Hon. Ralph Regenvanu (Acting Prime Minister of the Republic of Vanuatu) welcomed the delegates to Port Vila. He explained that, following the IHO report on charting and surveying in the region, the Vanuatu hydrographic unit was being re-established since it was clear that the provision of hydrographic information was of national importance.

He remarked that 95% of imports to Vanuatu were by sea and this, together with the importance of cruise ship visits to the country, prompted Vanuatu to join the SWPHC in order to help build for the future. He recognised that attendance at such meetings was important to provide guidance for future hydrographic activities. He further recognised that Vanuatu has limited capacity in finance and human resources and thanked other partners such as SPC-SOPAC for their assistance.

1.2 Opening Remarks by the Chairman

Rear Admiral Tom Karsten (Chair) thanked the hosts for a friendly welcome and stated that it was a privilege to be Chair of SWPHC. There followed a round table introduction of each delegate.

The Chair welcomed those present including data providers, data users and end user customers and stated that it was real benefit to have all constituent partners around the table.

He concluded by outlining what was hoped to be achieved at the meeting – a better understanding of the ‘Blue Economy’ and how to achieve its wider appreciation, together with the aim of achieving effective and collective engagement to resolve some of the issues and problems in the region.

1.3 Opening Remarks by the President of the IHB

Robert Ward opened his remarks by welcoming 6 of the 81 IHO Member States (MS). He noted the limited representation of the SW Pacific island states and hoped to find ways of improving on this situation. Robert Ward noted that present were data gatherers, chart compilers and industry members, but very few data suppliers.

He thanked the industry members for being present acknowledging they are key to some Capacity Building (CB) discussions and hoped for useful contributions in side meeting discussions.

He concluded by stating that he hoped the 12th SWPHC would achieve the aims of the IHO by ensuring the surveying of oceans and seas for the benefit of everyone.

1.4 Address by Chief Guest

No further address was made.

1.5 Agenda and Timetable approval

The Agenda (document SWPHC12-01a) and Timetable (document SWPHC12-01b) were accepted, but with the following amendments suggested by Adam Greenland (New Zealand) and supported by Tim Sewell (UK):

Items 11 (The Need for Hydrographic Services), 12 (Hydrographic Risk Assessments) and 13 (Maritime Funding) were taken before Item 7 (SWPHC Committees and Working Groups). The Chair then recommended that Item 10 (The Blue Economy) should be brought forward i.e. in advance of Item 6 (National Reports).

All the above was agreed. The minutes and list of actions, however, are in the original numerical order and do not reflect the order in which the items were addressed.

1.6 List of Documents

The List of Documents (document SWPHC12-01c) was accepted. (*Post-meeting note: Further documents were added during the meeting and the list has been subsequently updated*).

1.7 Administrative Arrangements

General ‘housekeeping’ announcements were made and the list of participants and contact details (document SWPHC12-01d) was circulated for amendment as necessary. The full list of attendees can be found at Annex A.

2. 11th SWPHC Minutes approval

The minutes of the 11th SWPHC held in Brisbane (document SWPHC12-02) were accepted as a true reflection of the proceedings of that meeting.

3. 11th SWPHC Actions List review

All actions from the 11th SWPHC were considered complete except for the following:

SWPHC11 No.	SWPHC11 Action Item	Action	SWPHC12 Comment
3	10.4	Compare LINZ survey data with the SPC-SOPAC data to be acquired in Tonga, in order to evaluate the quality of SPC-SOPAC data.	Complete Reported during SWPHC12
5	11.3	SPC-SOPAC to be included in list of information providers when preparing new charts.	Ongoing so no action to complete
14	11.12	Invite observer States to become Associate Members of	Carried over to SWPHC12 Action List

		the SWPHC by acceding to the Statutes of the Commission.	(Item 1)
20	11.18	Producer States submitting information helping to populate C-55 to provide data by State or logical island or regional group in order to review break-up of information provided in C-55 to ensure the most logical presentation.	Remove from action list as updating of C-55 is a standing agenda item.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.01	3	(From SWPHC11 Item 11.12) Contact remaining Observer States (Nauru and Tuvalu) to become Associate Members of the SWPHC by acceding to the Statutes of the Commission.	Australia	SWPHC 13

During this item, Jens Kruger (SPC) requested that it should be considered as an Associate Member of the SWPHC rather than an Observer. This was further discussed under Agenda Item 5 (see below).

4. IHO / IHB Matters

4.1 IHB Report (see presentation 04.01 and document 12.04a)

4.1.1 Approval of applications for IHO membership

Robert Ward (IHB President) reported that 3 nations have applied for membership – Vietnam, Brunei Darussalam and Georgia – and that, of the SWPHC nations, only Fiji and Tonga have yet to respond.

4.1.2 Status of the Ratification of the Protocol of Amendments

Robert Ward went on to say that, of the 48 approvals required to ratify the Protocol of Amendments, 39 have been received. Again, of the SWPHC nations, only Fiji and Tonga have yet to respond.

Whilst the Directing Committee of the IHB were trying to resolve this situation through diplomatic channels, Robert Ward encouraged MS attending SWPHC12 to ask Fiji and Tonga to respond.

Other items discussed (and as further explained in document 12.04a) are as follows:

- a) Regional Applications for Membership of the IHO (see also SPC application at Agenda Item 5 below).
- b) Asia-Pacific Heads of Maritime Safety Agencies.
- c) The work of the SWPHC ICCWG – covered under Agenda Item 7.1.
- d) Regional IHO GIS Database – covered under Agenda Item 4.7

The SWPHC was invited to note this report, to encourage Tonga and Fiji to respond the MS application and ratification of the Protocol of Amendments, and to support ENC and chart production through the SWPHC ICCWG.

Yves Guillam (France) recommended that notice be taken of the report from the Outcome of the High-level Meeting on Strengthening Inter-island Shipping and Logistics in the Pacific Island Countries (included as document SWPHC12.04a Suva Declaration). The meeting was conducted in collaboration with the IMO, the Pacific Islands Forum Secretariat and SPC and was attended by 33 delegates of 18 Pacific countries and territories, 42 representatives of 19 specialized agencies and related organizations, intergovernmental organizations and other entities.

4.2 SWPHC report to IRCC5 (Inter Regional Coordination Committee)

Tim Sewell (UK) presented an overview of the SWPHC report to IRCC5 held in June 2013 (see document SWPHC12-4b and presentation 04.02 for further details).

4.3 IRCC5 Report

Tim Sewell (UK) also presented an overview of the outcomes from IRCC5 (see presentation 04.03 for further details) and reported that full minutes are now available to read in the IRCC section of the IHO website.

Following the UK presentation, Robert Ward reiterated the facts that HSSC is a technical standards committee, whereas IRCC is a non-technical governance committee. The IRCC looks at global initiatives, so it is important to the SWPHC region. Robert Ward also went on to explain that Rear Adm Tom Karsten would become the next Chair of the IRCC and that the currently vacant Vice Chair role would be filled at the next meeting in Paris during May 2014.

Yves Guillam (France) remarked that 36 actions had been identified at the last IRCC meeting, some of which were very relevant to the SWPHC region e.g. the Maritime Disaster Plan.

Adam Greenland (New Zealand) noted that the IRCC actions made reference to revisions of S-5 (Standards of Competence for Hydrographic Surveyors) and S-8 (Standards of Competence for Nautical Cartographers. Robert Ward stated that certain revisions did not yet have stakeholder circulation so were on hold until the full circulation was complete. Adam Greenland went on to report that the revisions were more to the preamble of each document rather than the main content, but that the delay was still a problem and invited further comment. Robert Ward stated that the changes were actually more significant than first thought and the situation would be considered by the new Chair in due course.

4.4 WEND-WG Report (Worldwide ENC Database – Working Group)

Mike Prince (Australia) was unable to attend this meeting so the report was delivered by Tim Sewell (UK) as UK is Chair of the WG (see document SWPHC12-04d and presentation 04.04).

Tim Sewell reminded the meeting that the WEND-WG reports to the IRCC and that WEND-WG3 met in May 2013 with 20 attendees including 11 MS (6 RENC members and 5 non-RENC members).

Full details are contained in document SWPHC12-04d and delegates were invited to note the content of the report.

4.5 HSSC5 Report (Hydrographic Services and Standards Committee)

Robert Ward gave a report from HSSC5 (see presentation 04.05) explaining that the role of HSSC is the IHO Technical Steering Committee for IHO dealing with technical standards and liaison with industry such as OEMs and hydrographic service users. It comprises 10 WGs looking both at revising existing standards and developing new ones.

There were 57 attendees at HSSC-5 including 25 MS and 7 Observer organisations, but only Australia and France represented the SWPHC region.

Robert Ward invited the commission to note this report and remarked that it was an extremely successful meeting because of the level of delegate quality and participation.

Nick Ligacs (IC-ENC) enquired how many organisations were taking up S-100. Robert Ward listed the following organisations: IALA, UN Department of LOS, WMO (ITSI), IMO, Norwegian Maritime Authority, Malacca Strait Electronic Highway Project and, of course, the IHO.

4.6 IHO Year Book P-5

Attendees were invited to update as required national entries in the IHO Year Book. SPC agreed to coordinate responses and forward to IHB.

Robert Ward explained that the IHB was in process of providing a database version of P-5 which would allow MS to update its own entries as and when required.

Yves Guillam (France) remarked that it is important for those MS present to update P-5 but arguably more important for those not present to do so. SPC – with a widespread access to non-MS agreed to coordinate the response to IHB.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.02	4.6	All Member States - present and not present - to update and return to IHO their national entry in IHO Publication P-5 (Year Book). SPC to coordinate responses from non-MS in the region and forward to IHB	SWPHC MS and SPC	31 Jan 2014 & ongoing

4.7 Status of Hydrographic Surveying and Nautical Charting Worldwide C-55

National updates to C-55 should be included in each National Report.

4.7.1 Development of C-55

Robert Ward explained that C-55 currently provided estimated percentage coverage for surveys and charts for each nation (see presentation 04.07). He explained that some figures are startling (e.g. 95% of Fiji is unsurveyed), but that they were not necessarily accurate (e.g. 100% of Fiji is charted). It is clear that C-55 needs a greater value and would be better as a database permitting different outputs, allowing GIS overlays and the ability to provide compelling graphics.

He went on to say that some nations are members of more than one RHC thus rendering the current data difficult to use on an RHC basis.

There is, therefore, an IHO Work Programme Task (1.2.2) to develop an IHO GIS, a web server and web mapping services in support of RHCs, ENC availability, INT chart coordination (Publication S-11), status of surveys, charting and hydrographic capabilities (Publication C-55) and other related activities. The intention is to structure the database by a) country or organisation to support output to the Year Book etc and b) with GIS capabilities to support outputs to C-55, RHC-based queries, chart schemes etc.

Once the Antarctic “model” has been tested and uploaded, MS can use the model and populate areas of interest for evaluation. The intention is that this would be a resource available to IHO MS and, ultimately, available to the public.

It is envisaged that the model will be available to MS via the IHO website during 2014 depending whether an open source or proprietary GIS is used.

Yves Guillam (France) stated that this was an initiative strongly supported by France and continued by noting that there would be a need in this project to harmonise and synchronise with services required by wider stakeholders such as the European Commission.

4.8 Marine Spatial Data Infrastructure (MSDI)

A presentation on MSDI (see presentation 04.08) was made by Tim Sewell (UK) providing examples of MSDI used in other geographic regions demonstrating the use of GIS for sharing and integrating data and making it more widely available in useful formats.

In the Pacific region, Pacific Islands ERMA® was outlined. This is an online mapping tool integrating key environmental response information for decision makers. It covers the Hawaiian Islands and outlying territories, including Guam, American Samoa, and Johnston Atoll. Its primary focus is on impacts from coastal storms and marine debris, where it is being

used to assess the effects of stormwater runoff, high energy impact waves, vessel groundings, and marine debris.

The Chair posed the question to MS of how such MSDI should be used within the SWPHC region.

Adam Greenland (New Zealand) remarked that MS such as New Zealand and Australia were already using GIS for sharing of data and licensing to third parties. He suggested that progress is being made since certain MSDI elements are in place and that this would clearly evolve over time.

Yves Guillam (France) fully agreed with this view and commented that the European Commission was also looking at “planning for human activities in the maritime environment”.

Robert Ward also commented that the need for geo-spatial information was recognised by most states of the world. Such information is seen as “the great enabler” but, for many nations, this need ends at the waterline with a greater focus on land-based data. There is an increasing recognition that MSDI is important but this is still a hurdle for those outside the maritime environment. It must be appreciated that, it is no longer just about the charts, it is all about the data.

4.9 International Hydrographic Review (IHR) Editorial Board

It was confirmed at the commission that the listed representative for the SWPHC region would continue to be Vice Admiral Bruno Frachon (France).

5. Statutes

The proposal from Jens Kruger (SPC) that it should be considered as an Associate Member rather than an Observer was discussed. SPC believes that it would be beneficial to differentiate between commercial companies and regional inter-governmental organisations. Jens Kruger continued by proposing that, as an Associate Member, SPC could host future commission meetings together with other SPC-hosted initiatives to encourage better attendance.

Adam Greenland (New Zealand) explained that Section 4.f of the current statutes already permitted Observers to host RHCs.

John Lowell (US) enquired whether, as a separate body, it is up to the SWPHC to act as required on the SPC proposal.

However, Yves Guillam (France) raised the point that the different categories of RHC membership were clearly defined in the IHO M-3 Resolution 2/1997 as amended (Art. 4), and therefore, although he understood the SPC request, he was not sure that it was “legally” acceptable.

Robert Ward explained RHCs are separate, autonomous bodies that are not formally responsible to the IHO. He further explained that an Observer held a passive role at RHCs, whereas a member – either Full or Associate – would be able to be actively involved. He further explained that, as an Observer, attendance at a RHC is not compulsory. He recognised that SPC could clearly represent the interests of other regional states, particularly those who could not attend.

Brett Brace (Australia) stated that it would be good for SPC to attend in a more active manner and suggested that the statutes should be amended to reflect this situation.

Ruoikabuti Tioon (Kiribati) supported the SPC proposal for Associate Membership.

The SPC proposal was further discussed later on in the meeting – see 19 (Any Other Business) below.

See amended SWPHC Statutes at Annex B.

5.1 Guidance for potential hosts of SWPHC meetings

MS agreed that the document providing guidance for future RHC hosts (document SWPHC12-05b) should be included on the SWPHC website.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.03	5.1	It was agreed that the proposed document regarding roles and responsibilities of SWPHC host nations (document SWPHC12-05b) should be included on SWPHC website.	Chair (UK)	31 Jan 2014

5.2 Approval of the application of the Government of New Caledonia to become Observer in the SWPHC

New Caledonia had submitted an application to become an Observer at SWPHC (see also presentation 05.02). It was explained that New Caledonia was already a full member of SPC, the Pacific Island Forum and other similar bodies. The Law of Country has transferred the following responsibilities from France to New Caledonia:

- a) Safety of Navigation
- b) Search and rescue in territorial waters
- c) Rules of maritime traffic
- d) Ship safety rules and services

Mikael Quimbert (New Caledonia) explained that France retains some provision agreements with New Caledonia so French officials continue to carry out such duties, but on behalf of New Caledonia rather than France.

The application to be an Observer was fully supported by all MS present.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.04	5.2	It was agreed that New Caledonia should become an Observer to the SWPHC. (A signed copy of the statutes was provided by New Caledonia in anticipation of agreement.) Relevant documentation should be amended accordingly.	Chair (UK)	31 Jan 2014

6. National Reports

6.1 AUSTRALIA

Full details are contained in document SWPHC12-06a (no presentation), but significant highlights included the fact that AHS would be withdrawing its raster chart service ('AusRNC') from July 2014 and that AHS would be providing local distribution of AU ENCs. Brett Brace (Australia) went on to outline that the major challenges AHS was facing in the future include those relating to people and systems. AHS will be losing around 20 staff in the near future but hoped that improved systems would mitigate any problems.

John Lowell (US) asked why AHS intended to withdraw its RNC service and enquired which digital chart services would be available for non-SOLAS users. Brett Brace explained that a raster service was available from UKHO ('ARCS') and that it no longer made any commercial sense for AHS to maintain 'AusRNC'.

6.2 FRANCE

Full details are contained in document SWPHC12-06b and presentation 06.02. Yves Guillam explained SHOM is not just a chart producer, but is also responsible for providing knowledge of the marine environment. One of SHOM's main functions is the establishment of a recognised maritime database.

6.3 NEW ZEALAND

Full details are contained in document SWPHC12-06c and presentation 06.03. Significant items are that LINZ now has a new CE; the risk assessment work in Vanuatu has been completed with Tonga and Cook Islands next; the LINZ RNC service has moved to BSB format from HCRF (since the concept of permits and licences did not fit with the new "open agenda" access to data). LINZ also reported the development and release of an 'app' for Hydrographic Notes for use on smart phones and finally the development of HDI – a single source database developed over the last 4 years using CARIS HPD.

Yves Guillam (France) enquired whether LINZ was involved with the investigations into the grounding of the container vessel 'Rena' on Astrolabe Reef in 2011. Adam Greenland replied that the reef was clearly and accurately charted on NZ charts so, at this time, LINZ is merely keeping abreast of the situation.

6.4 UNITED KINGDOM

Full details are contained in document SWPHC12-06d and presentation 06.04. In addition to providing an overview of the main features in the report, Tim Sewell highlighted the recent publication of NP5012 (Admiralty Guide to ENC Symbols used in ECDIS), NP231 (Admiralty Guide to the Practical Use of ENCs) and the release of 2 new Maritime Security Charts bringing the total to 5.

6.5 PAPUA NEW GUINEA (PNG)

See document SWPHC12-06e. Nicolas Pion reported that, following an IMO Audit, a review of legislation and policies was required. He continued by

explaining that most effort was made into passing data to both AHS and LINZ. PNG had also undertaken a number of training events with both AHS and LINZ.

Yves Guillam (France) congratulated both PNG and Australia for the ships' routeing paper presented to the last NAV Sub-committee meeting.

Adam Greenland (New Zealand) further congratulated PNG on the establishment of a hydrographic capabilities unit and enquired whether there was any advice that could be given to those nations in region who are considering the same. Nicolas Pion replied by saying that 800 registered vessels raised the need for action by realising the importance of the area at an economic level. He also recommended that a regional focal point is required in an area of geographically disparate states.

6.6 SOLOMON ISLANDS

See document SWPHC12-06f. Clifford Olisukulu (SIMSA) described the re-establishment of the Solomon Islands Hydrographic Unit in 2012 after it was disbanded some 11 years ago. Its area of responsibility is greater than 600,000 sq km and surveying is due to begin again in 2014.

The Chair enquired how much does the Solomon Islands economy depend on the maritime environment to which Clifford Olisukulu replied that some 99% of trade is via sea transport.

6.7 UNITED STATES

John Lowell apologised for the fact that the US report was not submitted on time but that sequestration in US had a wide impact on the work of US Government departments. A written report would be submitted in a couple of weeks. He did report that, regarding the Blue Economy, there was a clear shift from individual databases to central systems and also from product-centric initiatives to those that are more data-centric. He also reported that a new NOAA ENC viewer was available online as was a new Chart 1 (Symbols and Abbreviations).

6.8 KIRIBATI

See presentation 06.08. Ruoikabuti Tioon was sadly suffering from a throat infection, so MS were invited to read the presentation.

6.9 VANUATU

Henry Worek described the New Zealand/Asian Development Bank-funded project to establish an independent maritime regulator. This project followed the IHO and LINZ studies of the region. Vanuatu has the intention to be a Full IHO MS from 2014. It is clearly understood that the cruise industry contributes significantly to the economy. New wharves are being constructed so new charts will be required. With regard to Capacity Building, Japan has offered two slots for Cat B training in mid-2014. Vanuatu has also applied for VIMSAS.

7. SWPHC Committees and Working Groups

7.1 SWPHC ICCWG

Nick Webb (ICCWG UK representative) provided the commission with an update on the work of the ICCWG. There has been ongoing correspondence to identify and successfully resolve overlaps and gaps in ENC coverage. Issues regarding paper chart production are contained in each National Report.

Robert Ward noted that the SWPHC ICCWG is a correspondence WG between Primary Charting Authorities (PCAs). This means that local states are not involved. He remarked that other RHCs are now setting aside time in the plenary session for ICCWG activities and invited the SWPHC to consider the same.

After a short discussion, this was agreed.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.05	7.1	SWPHC noted that other RHCs have been including the work of the regional ICCWG as part of the plenary session and agreed to adopt a similar approach. Chair to include as agenda item at next meeting.	Chair (Australia)	SWPHC 13

7.2 Capacity Building

7.2.1 Update on Capacity Building activities and submission since the last SWPHC meeting

Jasbir Randhawa (Australia) presented on overview of the SWPHC CB activities since the last SWPHC meeting in Brisbane 2012 (see presentation 07.02.1).

SWPHC CB Activities

1. Technical Visit to Solomon Islands (19 Feb – 2 Mar 2012)

Following the SWPHC11 Meeting, Mr Bob Wilson, International Hydrographic Projects Manager (UKHO), visited Honiara from 19 February to 2 March 2012. The aim was to assess the current status of charting and hydrography in the country and to provide advice to the government and to stakeholders on a way ahead. Meetings were held with the Solomon Islands National Hydrographic Co-ordination Committee (SIHCC) and various hydrographic and national charting stakeholders. Mr Wilson also worked closely with the Solomon Islands Hydrographic Unit (SIHU) staff in the Solomon Islands Maritime Safety administration (SIMSA). The Technical Visit report can be downloaded from the IHO website:

http://www.ihodata.org/index.php?option=com_content&view=article&id=399&Itemid=407

2. Technical Visit to Cook Islands (7-18 Oct 2013)

The visit, by Mr Adam Greenland, NZ National Hydrographer, was part of the Hydrography Risk Assessment for the Cook Islands. Discussions were held with the relevant government ministries which included an update on progress since the IHO Assessment visit in 2011. The results of the risk assessment will contain the priority areas of risk which will form the basis of a national prioritized survey plan, to improve nautical charts.

3. Papua New Guinea Visit (19 Nov – 14 Dec 2012)

Two cartographic staff from NMSA were attached to the AHS for a period of 2 weeks each to undergo follow-up training and work experience in Nautical Charting. Ms Patricia Logha and Ms Rhonda Amos were attached from 19-30 November and 3-14 December 2012 respectively. The participants familiarized themselves with existing chart production systems and processes, and developed their capacity to provide support in data compilation and management of hydrographic information.

4. Technical visit to Tonga (25 Nov – 6 Dec 2013)

The visit, by Mr Adam Greenland, NZ National Hydrographer, will be part of the Hydrography Risk Assessment for Tonga.

IHO CB Activities

1. Course in ENC Production – UK 30 Jan – 2 Mar 2012

This is the 3rd Module of the recognized Category B Programme, funded by Republic of Korea and the training facilities provided by UKHO. Out of 33 applications (from 28 countries) 9 candidates were selected, including one from the SWPHC - Papua New Guinea.

2. Course in Hydrographic Data Processing - NZ 9 Jul – 10 Aug 2012

This is the 2nd Module of the recognized Category B Programme, funded by Republic of Korea and the training team provided by UKHO. The IHB received 22 applications from 21 countries. Candidates from 9 countries were selected, including from the SWPHC - Australia, New Zealand and Papua New Guinea.

3. Course in Hydrographic Data Processing and Marine Cartography, including specialism in Electronic Navigational Chart - UK 2 Sep – 13 Dec 2013

This is a Category B recognized course, funded by the Nippon Foundation (Japan) and the training facilities provided by UKHO. The IHB received 33 applications from 27 countries. Candidates from 6 countries were selected, including one from the SWPHC - Solomon Islands. Three participants from Australia are also attending Module 3 of the course (ENC Production).

Non-IHO CB Activities

1. Regional Training Course in Hydrographic Surveying, Suva, Fiji, 24 Sep - 5 Oct 2012

This training course, funded by the International Maritime Organization (IMO), was jointly organized by SPC, IMO and the IHO. It was held at the Fiji Navy Base, Suva, Fiji. A total of 19 participants attended the training – Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Myanmar, Niue, Palau, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. All lectures were delivered by Mr Samuel Harper and Mr David Parker of UKHO.

7.2.2 Update on the 5 year Capacity Building plan

Annex C contains a table showing planned CB activities for 2013-2017.

Andrea MacDonald (New Zealand) introduced the concept of a CB Maturity Model. To assist the understanding of MS, New Zealand was asked to provide further explanatory notes.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.06	7.2	NZ introduced the concept of a CB Maturity Model and was requested to provide further explanatory notes via the Chair for MS to comment.	New Zealand	30 Nov 2013

Adam Greenland (New Zealand) also proposed that MS should complete and return a CB questionnaire in order to determine future CB requirements.

Action Item	Agend a Item	SWPHC Action	Action by	Deadline
12.07	7.2	NZ introduced a CB questionnaire for completion. It was agreed that the questionnaire should be sent to all participants and States within the region for completion and return to CB Coordinator (NZ).	New Zealand	Questionnaire to be sent out by November 2013 and responses returned to New Zealand by mid-December 2013.

The following actions were also agreed during the meeting.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.08	7.2	Establish CB WG to work on CB work plan, maturity model framework and future initiatives.	New Zealand	31 Mar 2014

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.09	7.2	New Zealand to provide list of donors to contact in order to secure CB buy-in.	New Zealand	31 Mar 2014

8. Relevant International Organisations' Reports

8.1 Applied Geoscience and Technology Division (SPC-SOPAC) of the Secretariat of the Pacific Community (SPC)

The SPC-SOPAC report comprised 2 elements – an update on survey activities (see presentation 08.01a Survey Activities) presented by Salesh Kumar (SPC Hydrographic Surveyor), and a view toward a Framework for Action for Hydrographic Services (see presentation 08.01b SPS Report) presented by Jens Kruger (SPC Team Leader - Oceanography).

The first report outlined the survey equipment available to SPC-SOPAC and Salesh Kumar explained that motion sensors and tide gauges were yet to be purchased. Mr Kumar went on to describe the various surveying projects undertaken by SPC-SOPAC. This included a project to enable environmentally safe mining of aggregates from lagoons by surveying such areas to identify unexploded ordnance (UXO) from the invasion of Tarawa (Kiribati) during WWII. SPC-SOPAC also reported an outstanding request from UKHO for survey data in Kiribati.

The Chair suggested that the survey for UXO may have a wider human interest and perhaps more could be made from this project promoting the usefulness of hydrographic surveys.

Adam Greenland enquired whether or not the UXO survey data had been passed to the Australian and New Zealand defence organisations. SPC-SOPAC reported that such data had certainly been passed to New Zealand, but was uncertain about Australia.

Adam Greenland went on to enquire how future work would be prioritised and funded. Jens Kruger explained that SPC was an inter-governmental organisation operating on behalf of regional governments. Funded for activities would be provided by either the government requesting the work, or by a development partner. Prioritisation of work is based on availability of resources and whether funding is in place, but it is often on a 'first come, first served' basis. Jens Kruger further explained that the annual budget for the SPC Oceans and Islands Programme is FJD7million (around USD3.8million) but that the majority of the work (around 60%) is project funded.

The subsequent report given by Jens Kruger began by outlining what SPC (Secretariat of the Pacific Community) actually did. He explained that SPC is a regional inter-governmental organisation as well as a technical and scientific organisation. SPC-SOPAC is the Applied Geoscience and Technology Division responsible for the Oceans and Islands Programme, and that SPC-EDD is the Economic Development Division responsible for the Transport Programme. SPC-SOPAC has a MOU with IHO, whereas the EDD has a MOU with IMO.

Jens Kruger continued by explaining that, at a Regional Maritime Transport Meetings to be held in March-April 2014, there would be a proposal to endorse a single organisation as a regional voice for maritime transport matters. SPC intends to prepare an information paper (by 15 December 2013) to raise the profile of hydrography at this meeting.

Regarding data discovery, Jens Kruger explained that the SPC GeoNetwork server holds data on behalf of member countries and that a PacGeo online portal is being developed to access such data. SPC-SOPAC is committed to making its data and products as open and freely available as possible.

The survey programme for the following 2 years was outlined with Coastal Terrain Model for Climate Adaptation Modelling activity planned in Kiribati and Tuvalu, and bathymetric survey activity at several locations in Vanuatu and Solomon Islands leading to improved charts and ENCs of these areas.

It was acknowledged that both the Australian and New Zealand governments, as well as other development partners, had provided funding for SPC hydrographic activities.

Jens Kruger completed his presentation by outlining the guiding principles for a Regional Framework for Action on Hydrography as follows:

1. The need for sustainable livelihoods, and recognition of climate change, disasters, culture, equity and gender issues.
2. National-led solutions supported by regional initiatives compliant with international obligations.
3. Evidence-based planning – the importance of prioritising through risk assessments.
4. Coordinated whole-of-sector approach: the importance of treating hydrography as an integrated service.
6. Appropriate investment in human capital and technical solutions.
7. ‘Many partners, one team’ / ‘Map once, use many ways’.

Finally, an overview of what is required from the SWPHC to achieve the above was presented as follows:

1. Acknowledge the support by Australia and New Zealand to SPC.
2. Note and support SPC’s efforts to establish a Hydrographic Unit.
3. Support SPC on activities relating to the Regional Maritime Transport Meetings in March-April 2014
4. Provide support in drafting a Framework for Action and Regional Solution for Hydrography in the Pacific.
5. Consider SPC’s Associate membership to the SWPHC.

Adam Greenland requested from SPC further information regarding the shape of the economical assessments for future bids for funding. Robert Ward offered to provide 7 completed cost-benefit analyses to SPC for information and for use as possible templates for future work.

Jens Kruger requested that SWPHC note the work of SPC and provide support in drafting the Framework Document above. All MS agreed to assist as necessary.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.10	8.1	MS to support SPC as required in drafting Framework Document regarding Action on Hydrographic Services in Pacific region.	SWPHC MS	Ongoing

8.2 GEBCO

Dr James Daniell from James Cook University, Australia, gave an introduction to the 'Blue Planet' and the need for hydrographic data (see presentation 08.02 GEBCO) and presented an overview of the work and role of GEBCO which aims to provide the most authoritative, publicly-available bathymetric datasets for the world's oceans. GEBCO also maintains and makes available a gazetteer of undersea feature names and operates under the joint auspices of the IHO and the Intergovernmental Oceanographic Commission (IOC) of UNESCO.

Dr Daniell outlined the existence of SCRUM (Sub-Committee on Regional Undersea Mapping) set up to collaborate with the RHCs and to coordinate regional mapping activities. He also explained that the following data sets were freely available:

- a) Global gridded bathymetric data sets
- b) Global set of digital bathymetric contours
- c) GEBCO Gazetteer of Undersea Feature Names
- d) GEBCO Digital Atlas
- e) GEBCO world map
- f) Web Map Service (WMS)
- g) IHO-IOC GEBCO Cook Book

He stated that GEBCO was working with nations to encourage the contribution of data – including shallow water bathymetry - to the IHO Data Centre for Digital Bathymetry (IHO DCDB) to be included in its global bathymetric grids.

With regard to Capacity Building, Dr Daniell explained that the Postgraduate Certificate in Ocean Bathymetry funded by the Nippon Foundation, is in its tenth year and has trained 60 scholars from 31 countries.

He concluded his presentation by describing the seabed mapping activities at James Cook University (JCU), the research undertaken on environmental and geosciences applications of seabed mapping and how keen JCU is to develop international research projects and to promote educational opportunities.

There followed a discussion on how to secure the permissions required for nations to release data to GEBCO and the best methods of obtaining such permissions. Dr Daniell stated that there is an ongoing request to regional partners to provide data with permissions included.

Yves Guillam (France) enquired about methods to transfer data to GEBCO from the SPC PacGeo. It was noted that policies were required to coordinate such data transfer under agreed conditions and with permissions in place.

8.3 IALA (International Association of Lighthouse Authorities)

Stephen Bennett outlined the role of IALA (see presentation 08.03) explaining that it was created in 1957 and developed IALA Buoyage Regions A and B. The aim of IALA is to harmonise Aids to Navigation worldwide and to ensure that the movement of vessels is safe, expeditious, cost effective and harmless to the environment. He further explained that it was likely that IALA would upgrade to an international Inter-Governmental Organisation (IGO) by 2016.

He went on to explain about the Risk Management Toolbox which was used in Papua New Guinea to determine future routeing measures, and also about a new simplified qualitative tool for developing nations which was under development.

Reference was made to the availability of IALA publications, recommendations and guidelines much of which is available free of charge from the IALA website: www.ila-aism.org.

The IALA World-Wide Academy (WWA) is the vehicle by which IALA delivers training and capacity building. It was started in January 2012 and is independently funded.

Stephen Bennett reminded the commission that the regional point of contact for IALA in the SWPHC region is the Australian Maritime Safety Administration (AMSA) and explained that 12 regional states are being targeted to join IALA, namely: Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.

Stephen Bennett completed his presentation by explaining that the deliverables of IALA comprise training through various syllabi as shown on the website and a 4 stage capacity building methodology:

- a) Stage 1: Raising awareness through targeted seminars using a pre-seminar questionnaire.
- b) Stage 2: Request by newly aware States for assessment of needs.
- c) Stage 3: Analysis of requirements including the use of available AIS data from all sources.
- d) Stage 4: Recommended actions to achieve full compliance.

He concluded by stating that, in the future, an e-learning portal would be available via the IALA website, but that this would not be free of charge.

Yves Guillam (France) enquired how IALA capacity building was funded. Stephen Bennett replied that funding was provided principally by the International Foundation for Aids to Navigation (IFAN) and several other in-kind sponsors such as the IMO. It was hoped that future sponsorship might be provided by Korea and the Nippon Foundation. Yves Guillam then enquired about VTS training and received the response that training was available for operators and supervisors by Approved Training Organizations details of which could be found on the Academy page of the IALA website.

John Lowell (US) enquired if there would be any changes when IALA achieved IGO status. Stephen Bennett answered by stating that currently IALA was a French charity and that IGO status would give the organisation a stronger say in matters and a greater international significance.

Stephen Bennett agreed with a request from Adam Greenland (New Zealand) that IALA should communicate more through New Zealand regarding capacity building activities in the region.

8.4 IMO (International Maritime Organization)

Robert Ward delivered this presentation in the absence of the IMO representative (see presentation 08.04) and provided an overview of IMO activities which relate to the safety and security of shipping together with the prevention of marine pollution by ships. Current and recent input from the IHO to IMO comprises the following:

- a) Capacity Building such as MSI training and country profiles
- b) WWNWS
- c) ECDIS information such as standards, operating anomalies and training syllabus (STCW)
- d) Polar Code
- e) e-Navigation strategy

Adam Greenland (New Zealand) enquired about the relationship between the IHO and IMO. Robert Ward answered by stating that the relationship between the secretariats is very good and open. He went on to explain that the IMO often expects the IHO, rather than an IMO delegation, to fix certain problems, and that the IMO is not always good at contacting national hydrographic offices before attending meetings. Robert Ward explained that work was in hand to improve this situation.

Yves Guillam (France) recommended that, in future, IHO might consider a greater engagement with the Marine Environment Protection Committee as well.

8.4.1 Member State Audits

Robert Ward then gave a short presentation (see presentation 08.04.01) on VIMSAS (Voluntary IMO Member State Audit Scheme) and explained that, following an audit, a report is provided to the state and that a high level summary is made publicly available. He explained that, at the moment, the IHO was not allowed to view the full report and that it was up to the state to send the report to the IHO if required.

Robert Ward asked the commission to note that, from 2015, VIMSAS would become MIMSAS i.e. no longer Voluntary, but Mandatory. He went on to explain that the audit teams do not currently contain hydrographers which, from an IHO perspective, is very frustrating. Stephen Bennett (IALA) agreed with this frustration and also pointed out that, on the IALA website, guidance is given to MS on how to prepare for a voluntary audit. Yves Guillam (France) recommended that IHO raise the requirement for hydrographers to be present at future audits. Robert Ward agreed that IHO would continue to press for this situation.

David Weinstein (NZ MFAT) enquired as to where the high level summary was published, but Robert Ward stated that this summary was of little use since it was set at too high a level and was far too generalised. David Weinstein went on to say that it would be useful to know which

nations have not passed the audits since this would encourage action to achieve compliance.

Yves Guillam (France) advised the commission that IHO CL 10/2006 provided draft guidance for VIMSAS.

9. Maritime Safety and the World Wide Navigational Warnings Service

Commodore Brett Brace (Australia) explained that Australia was the coordinator for NAVAREA X and explained that fuller details regarding MSI and WWNWS were contained in the Australian National Report (see document SWPHC12-06a).

Adam Greenland (New Zealand) explained that New Zealand (LINZ) was the coordinator for NAVAREA XIV and referred delegates to the New Zealand National Report (see document SWPHC12-06c). He went on to explain that a self-assessment report would follow and would be posted on the IHO website.

10. Blue Economy

Robert Ward provided the commission with an overview of The Blue Economy (see presentation 10.00). The intention was to provide ideas on how to broadcast the message that the maritime environment is both resource and feature rich. The presentation slides were aimed at those ignorant of the fact. He concluded his presentation by stating that the investment in hydrography is a good, long term investment and that the potential benefits were largely unacknowledged by politicians and the public.

Yves Guillam (France) provided additional insights on the Blue Growth long term strategy by the European Commission. (http://ec.europa.eu/maritimeaffairs/policy/blue_growth/). David Weinstein (New Zealand Ministry of Foreign Affairs and Trade) stated that, when seeking funding for hydrographic projects, a cost-benefit analysis (CBA) is always requested and enquired whether Robert Ward had any relevant advice. Robert Ward confirmed that such CBA existed and agreed to provide examples.

11. The Need for Hydrographic Services

See presentation 11.00.

11.1 IHO Publication M-2

Robert Ward gave an overview of M-2 explaining that hydrography supports many benefits outside of simply safety of navigation, and contributes significantly to the Blue Economy. He explained that, as well as obligations placed on mariners, e.g. SOLAS V/19 (carriage of official nautical charts and publications) and SOLAS V/27 (ensuring such charts and publications are kept up-to-date), there are complementary obligations placed on states, e.g SOLAS V/9 (the provision of hydrographic services).

This means that states must arrange to collect and compile hydrographic data, and to publish, disseminate and update all nautical information necessary for safe navigation. Additionally, they must undertake to obtain uniformity in charts and nautical publications and to take into account whenever possible the relevant international resolutions and recommendations adopted by the IHO. Finally, they must co-ordinate activities and ensure global availability of hydrographic and nautical

information. In short, this means that surveys are carried out, charts and publications are kept up-to-date, and Maritime Safety Information is promulgated.

Robert Ward emphasised the fact that regulations SOLAS V/9 and SOLAS V/4 relating to the provision of hydrographic services and navigational warnings are International Obligations under Treaty Law and, as such, all SOLAS Contracting Governments are obliged to act upon them.

The obligations under regulations SOLAS V/9 and SOLAS V/4 can be met by the government, a bilateral cooperation with other states, or by using commercial service providers. There is, however, an overall obligation to ensure that the responsibility for any national hydrographic services is always undertaken by the government.

NZ requested that the IHO presentation regarding the Need for Hydrographic Services should be made more widely available via the SWPHC website. This was agreed.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.11	11.1	The IHO presentation regarding the Need for Hydrographic Services should be made more widely available via the SWPHC website.	Chair (UK)	31 Jan 2014

Jens Kruger (SPC) suggested that nations may be able to meet the obligations of SOLAS by using regional agencies or organisations such as SPC. Robert Ward concurred and would consider amending the presentation to read “a multilateral cooperation” with other states” rather than “a bilateral cooperation”.

Mike Drake (Carnival) stated that M-2 is a very useful document and enquired whether there was a specific strategy for it to be used to educate those bodies seeking funding, or where funding needs to be applied. Robert Ward answered that there was no specific strategy, it was just part of the general outreach and engagement programme.

Yves Guillam (France) cautioned that one issue behind M-2 is the aspect of liability. If there was no national geospatial infrastructure in place, to whom should any data be sent? Jens Kruger (SPC) reminded the commission that SPC has a mandate to collect, collate and hold hydrographic data of behalf of nation states that do not have the necessary spatial infrastructure. This does not often happen because states do not submit the data.

Adam Greenland (New Zealand) proposed that all States that do not have the necessary spatial infrastructure submit their data to SPC as a matter of course. This recommendation was agreed together with an action for SPC to seek permission from these States for such data to be released to Primary Charting Authorities (PCA's) for charting action.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.12	11.1	All States in the region that do not have the necessary spatial infrastructure to submit their data to	All States	30 Apr 2014

	SPC. SPC to obtain permission from States in the region to release data (and associated metadata) to PCAs for charting action.	SPC	
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11.2 SOLAS Responsibilities

Included in Agenda Item 11.1 above.

11.3 Bilateral Arrangements

Included in Agenda Item 11.1 above.

12. Hydrographic Risk Assessments

See presentation 12.00. Adam Greenland (New Zealand) explained that maritime safety had been a major concern in the South West Pacific for a number of years and that in December 2011 LINZ and MFAT signed a MOU to improve navigational and maritime safety in the region. The overarching goal was to achieve accurate and adequate charting coverage.

Adam Greenland went on to explain the work completed so far:

- a) 42 of 60 ENCs are available
- b) Prototype risk assessment methodology has been developed
- c) Vanuatu pilot study complete, including AIS and traffic analysis, in-country data gathering, maritime economic analysis and GIS risk assessment
- d) Final risk assessment methodology published

He continued by explaining that, although the Risk Terrain Modelling used was standard (e.g. Risk = Frequency (likelihood) x Consequence), what is unique is the maritime focus and associated use of AIS data.

The Risk Assessment Methodology comprises 4 steps which enable the government of the day to make informed decisions on the way ahead:

- Step 1 – Data Gathering
- Step 2 – Risk Assessment
- Step 3 – Economic Analysis
- Step 4 – Publication and distribution of results

The publication of the results, however, is clearly not the end of the situation. It must lead on to a commitment to act by the local government and also a commitment to act from the PCA in order to improve maritime safety.

12.1 Vanuatu Test Case

The data from the Vanuatu test case is available online (see www.linz.wivolo.com for GIS data. Adam Greenland stated that anybody requiring access should e-mail him at a.greenland@linz.govt.nz.

He explained that the documents used for the methodology are available for use in future risk assessments and that the methodology is supported by CB programmes such as IMO and IALA.

The next steps are two further risk assessments in Cook Islands (7-19 Oct 2013) and Tonga (2 Nov-7 Dec 2013).

Stephen Bennett (IALA) enquired whether there a graphic that would represent areas of risk against charted areas. Adam Greenland responded by stating that it would be very simple to show chart limits combined with risk areas.

Mike Drake (Carnival) congratulated LINZ and MFAT for this work and recommended that similar exercises should be considered for areas where the cruise potential is as yet untapped but would be raised if the charts were available.

Yves Guillam (France) noted that the risk assessment was based on navigational safety and the potential for accidents. Perhaps some consideration should be given to the identifying environmental risk. Adam Greenland agreed with this and saw the current risk assessment methodology as a catalyst for further wider discussions.

David Weinstein (NZ MFAT) explained that the Vanuatu model was a proof of concept and would clearly develop over time. He stated that the approximate cost per assessment is approximately NZ\$175k (US\$145k).

It was agreed that New Zealand should produce a short article outlining the risk assessment methodology for consideration of publication in Hydro International, the International Hydrographic Review and other such publications as required.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.13	12.1	It was agreed that NZ should produce an article regarding the risk assessment methodology used in Vanuatu for publication in Hydro International, the International Hydrographic Review (and potentially other publications).	New Zealand	30 Apr 2014

Following discussion, SWPHC MS agreed to endorse the use of the LINZ Risk Assessment Methodology within the SWPHC region and agreed it should be used for the upcoming assessments in Tonga and Cook Islands.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.14	12.1	SWPHC12 endorsed the risk methodology used in Vanuatu and agreed that it should be similarly used by NZ in the upcoming assessments in Tonga and Cook Islands.	New Zealand	Jun 2014

The commission was then invited to adopt such a methodology regionally i.e. beyond the assessments of Tonga and Cook Islands. This prompted much discussion regarding the potential for comparison between areas. David Weinstein (NZ MFAT)

advised against using the methodology as a tool to prioritise allocation of funds – a significant risk is still a significant risk, regardless of geographic area.

MS agreed that an overall prioritised survey plan for the region would be difficult to produce since surveys may depend on the source of funds e.g. Australian funded surveys would tend to gravitate towards Australian areas.

Finally it was agreed that the methodology can be used more widely in the region but special care must be taken to avoid the potential for relative 'risk rankings'.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.15	12.1	SWPHC12 agreed that such methodology should be considered for other assessments within the region and part of a wider CB plan, but that future analysis should be mindful of the potential dangers of 'risk rankings'.	New Zealand	Ongoing

Yves Guillam (France) acknowledged that one of the goals of the IRCC is to share best practice and perhaps this risk assessment piece should be presented to IRCC6 and possibly EIHC4. This was covered at Agenda Item 20 (SWPHC Report to IRCC6).

13. Maritime Funding

David Weinstein (New Zealand MFAT) explained (see presentation 13.00) that nautical charts are an essential building block to maintain safety and economical development. Poor charts can mean enhanced risks to life and the environment from shipping accidents, risks around legal liability e.g. for the costs of accidents and/or oil spills. Poor charts may mean that insurance companies may not insure vessels, or may raise premiums. They may also be a barrier to economic development e.g. if cruise vessels avoid poorly charted areas.

He went on to outline a Proposal for a Regional Hydrography Programme but cautioned that this was at concept stage only. The proposal contained a number of elements as described in the presentation with an overall outcome of a safer maritime environment for the transport of people and goods together with economic development through trade and tourism.

The proposal would embrace risk assessments such as that conducted in Vanuatu in order to identify priority areas for potential mitigations.

The hydrographic survey phase of work would comprise 4 phases:

- a) Phase 1 – Set-to Work such as mobilisation etc (approximately 20% of costs)
- b) Phase 2 – Fieldwork / data capture (approximately 50% of costs)
- c) Phase 3 – Data processing / rendering (approximately 30% of costs)
- d) Phase 4 – Publication of new edition or new chart

After outlining some of the costs, David Weinstein also identified some potential cost savings as follows:

- i) Source existing data before gathering new
- ii) Use domestic or visiting vessels with a survey capability
- iii) In-kind contribution of a vessel by island nation
- iv) Consider use of SPC resources
- v) Ensure use of equipment fit for purpose
- vi) Negotiate contribution from commercial service providers e.g. cruise and ferry companies etc.

14. Development of Satellite Derived Bathymetry

Nick Webb (UK and Secretary) provided an overview of the UKHO's trials with Satellite Derived Bathymetry (SDB) (see document SWPHC12-14). The presentation outlined some of the potential problems with using SDB for charting purposes and described the ongoing SDB trials in Antigua.

There followed discussions regarding the relative merits of SDB during which Yves Guillam (France) explained that SHOM had been successfully using SDB for some 30 years, particularly in the charts of French Polynesia.

15. Crowd Sourcing Survey Techniques

Nick Webb gave a presentation regarding Crowd Source Bathymetry (CSB) (see documents SWPHC12-15a, SWPHC12-15b and presentation 15.00). The presentation outlined the use and potential of CSB in remote areas, whilst also noting some of the limitations. It described the trial undertaken in Antarctica during 2012 together with the potential of including CSB on nautical charts.

15.1 Uses of Crowd Sourced Data Within Hydrographic Products

Further to the CSB presentation by Nick Webb, Robert Ward provided an update on the state of global hydrography and bathymetry and agreed that the use of mariners at sea is an as yet untapped resource for the collection of bathymetric data.

Robert Ward continued by describing the upcoming IHB CSB trial – a low cost, high impact initiative (see presentation 15.01). He is aware of the existence of commercial trials e.g. TeamSurv but clearly money has to be made somewhere with such trials. The IHB trial would be a non-commercial, community based proposal between the IHB and the Professional Yachting Association (an IHO Observer association). The concept trials would begin in 2014 using 10 super-yachts in Monaco and 10 more in the Caribbean. The IHB aim is to get a data logger onto every professionally crewed ship. Robert Ward acknowledged the previous issues regarding quality and reliability of CSB, together with any liability issues but posed the question as to whether some data is better than no data.

Issues regarding the assessment of data quality, the portrayal of CSB on charts and exposure to liability (by depth observers or chart publishers) clearly need to be addressed but, to date, there appeared to be no 'showstoppers'.

Mike Drake (Carnival) remarked that previous CSB trials cost USD12k per ship per year which was not really a low cost option. He suggested that the IHB initiative would appear to be a step forward.

John Lowell (US) enquired about the legality of data gathering in the territorial waters of other nations. Robert Ward said that there was no real difference between data gathering using a CSB data logger than that used by collecting data using an echo sounder and submitting reports via Hydrographic Note.

Yves Guillam (France) remarked that it is no longer an option not to support such initiatives and recommended that a policy paper should be presented regarding CSB, possibly at EIHC5.

In response to a question from Adam Greenland (New Zealand) regarding GEBCO involvement in CSB, Robert Ward replied that he views the use of CSB as a potential revitalisation of GEBCO.

16. SWPHC Matters

16.1 SWPHC Name

Following a short discussion regarding a potential name change for the commission, it was unanimously agreed to keep the name as SWPHC.

16.2 SWPHC Logo

Delegates viewed the proposed options for a SWPHC logo (see document SWPHC12-16 but none were deemed acceptable. Nicholas Pion (Papua New Guinea and Vice Chair) agreed to work with SPC to provide potential logos for discussion at SWPHC13. It was recommended that logos could include contributions from local schoolchildren and should reflect a regional flavour.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.16	16.2	Papua New Guinea to work with SPC to design potential logos for SWPHC.	Papua New Guinea and SPC	To be presented at SWPHC13

17. IC-ENC (International Centre for ENCs)

Nick Ligacs (IC-ENC) provided an overview of the RENCs (see presentation 17.00) during which he explained that Primar was based in Norway and hosted by the Norwegian Hydrographic Service, whereas IC-ENC was based in UK and hosted by the UKHO. IC-ENC (Australia) was hosted by the Australian Hydrographic Service but financed by IC-ENC HQ in UK. He stated that 7,710 ENCs are available through the RENCs (around two thirds of all ENCs) and that IC-ENC has released 4,872 ENCs (to Week 45/13).

Nick Ligacs explained that the benefits of RENC membership include Quality Assurance, shared experiences, distribution, simplified financial management and legal agreements, consistent licensing terms for end users, additional technical support and optional services to hydrographic offices as well as creating a seamless ENC product that is widely available through integrated services. These benefits were further explained as shown in the presentation slides.

IHO CL 05/2012 was quoted which circulated descriptions of each RENC and stated that “the WEND principles encourage Member States to distribute their ENCs through a Regional ENC Coordinating Centre (RENC) in order to share in common experience and reduce expenditure, and to ensure the greatest possible standardization, consistency, reliability and availability of ENCs.” It continued by explaining that “RENCs are also intended to facilitate co-operation between Member States to resolve overlaps and gaps in coverage, ensure compliance with encoding standards, provide a world-wide consistent level of high quality ENC data and support the provision of co-ordinated end-user services for ENCs.”

18. Proposals for Extraordinary International Hydrographic Conference Agenda Topics

The commission discussed whether a proposal should be made to EIHC5 as to whether the risk assessment methodology discussed above (see 12.1) should be considered as part of the overall capacity building strategy. Robert Ward suggested that, as there was already a Capacity Building agenda item, a better approach would be to perhaps submit to EIHC an information paper on the methodology used. The commission agreed to this suggestion and New Zealand agreed to draft a paper.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.17	18	New Zealand to draft Information Paper for EIHC5 regarding SWPHC CB Strategy and send to SWPHC Chair.	New Zealand	15 Mar 2014
12.18	18	Chair to ensure notification of Information Paper above (12.16) is made to EIHC5. Paper to be submitted to IRCC on behalf of the SWPHC.	Chair (Australia)	31 Mar 2014

19. Any Other Business

There were no further topics from the industry representatives.

SPC again raised the issue of its status as Observer. The commission was asked to consider whether a solution used at other RHCs in similar situations would be acceptable i.e. the introduction of a new status called ‘Expert Contributor’. Representatives from industry were therefore known as ‘Expert Contributors’ and were invited by the Chair to each commission as necessary.

This would mean that SPC would retain its Observer status (and thus able to attend each commission without invitation) but that it would be set apart from other industry representatives, who would need to be individually invited by the Chair on each occasion.

The commission largely agreed with this suggestion and an action was identified to update the SWPHC statutes accordingly. See amended SWPHC Statutes at Annex B.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.19	19	Amend statutes to introduce new category of 'Expert Contributors' and to recommend that 'Expert Contributors' would be allowed to attend the commission by invitation only.	Chair (UK)	31 Jan 2014

The only other item of AOB related to a video available on YouTube made by the Australian Broadcasting Corporation as part of its 'Ace Day Jobs' series entitled 'Ace Day Jobs - Hydrographic Surveying'. The video describes the work of Sydney Ports and could be used to promote hydrographic surveying.

20. SWPHC report to IRCC 6

Commodore Brett Brace (Australia) reminded the Commission that there was a standard format for reporting issues to IRCC.

The Commission agreed that the following topics should be reported to IRCC:

- a) Risk Assessment Methodology best practice (using LINZ and IALA as examples).
- b) Vanuatu charting issues - Case Study Example and Solution
- c) The role of regional Inter-Governmental bodies such as SPC in the provision of hydrographic services

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.20	20	To ensure the following items are reported to IRCC6: a) Risk Assessment Methodology best practice (using LINZ and IALA as examples) b) Notification of threats, issues and solutions as has recently happened in Vanuatu c) Risk Assessment Methodology to be considered by IRCC as a proposal to EIHC	Chair (Australia)	7 weeks prior to IRCC6 (31 March 2014)

21. Date and Venue of the next meeting

It was noted that the Cook Islands offered to host SWPHC13 and the date was proposed as sometime during February 2015. This would help to ensure the attendance of island states. It was proposed that a capacity building workshop running just before the SWPHC would also encourage more states to attend.

New Caledonia offered Noumea to be a reserve should the Cook Islands offer not materialise for any reason.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.21	21	Contact Cook Islands as necessary re SWPHC13	Chair (Australia)	30 Apr 2014

22. Election of Chair and Vice Chair

Adam Greenland (New Zealand) proposed Australia as the new Chair. Australia proposed that Papua New Guinea should remain as Vice Chair. Both proposals were unanimously agreed by the commission.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.22	22	Transfer Chair to AU and retain Vice chair with PNG.	Chair (UK)	15 Feb 2014

23. Approval of the Action List

The Action List was reviewed and approved. The Chair recommended an additional action to write to the patron of each delegate highlighting the importance of the SWPHC. Delegates were invited to provide a suitable point of contact for this to happen.

Action Item	Agenda Item	SWPHC Action	Action by	Deadline
12.23	23	Chair to contact each delegate's patron (cc delegate) highlighting usefulness of SWPHC.	Chair (UK)	31 Dec 2013

24. Closing Remarks from the President of the IHB

Robert Ward commented that SWPHC12 was a productive and important meeting. He remarked that the formal items of the meeting had been successfully completed and was pleased that the commission was looking ahead to the future. He concluded by congratulating all delegates on a fantastic collaborative effort.

25. Closing Remarks from the Chair

Rear Admiral Tom Karsten remarked that it had been a good meeting connecting people related to the 'Blue Economy'.

He highlighted significant successes of the meeting which included:

- a) The welcome of New Caledonia as an Observer.
- b) The progress in hydrographic matters made by Papua New Guinea and Kiribati.
- c) The risk assessment work carried out by New Zealand.
- d) The out of plenary discussions regarding the charting of Vanuatu and the future commitment of Carnival to the region.

He continued by thanking Nick Webb (UK) for his secretariat work, Tim Sewell (UK) for his assistance during the industry day, all SWPHC delegates for their contribution and involvement, the IHB President for his insight and advice, and finally the host nation for its hospitality, for providing a beautiful place for the meeting and, last but certainly not least, for the warmth of its welcome.

The meeting closed.

**12th South West Pacific Hydrographic
Commission Meeting
12th – 14th November 2013
Port Vila, Vanuatu**

**Annex A
List of Participants**

Members			
Country	Organisation	Participant	Email
Australia	AHS	Brett Brace	brett.brace@defence.gov.au
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		Yves Guillam	yves.guillam@shom.fr
	Gouvernement de la Nouvelle-Caledonia	Mikael Quimbert	mikael.quimbert@gouv.nc
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	Ministry of Foreign Affairs & Trade	David Weinstein	david.weinstein@mfat.govt.nz
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	Ministry of Infrastructure & Public Utilities	Johnson Binaru	
	Department of Lands	Martin Sokomanu	
	Department of Tourism	George Borugu	
	Ministry of Infrastructure & Public Utilities	Markmon Batie	
	Department of Ports & Harbour	Charley Kalo	
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* Video link presentation

STATUTES

of the

SOUTH WEST PACIFIC HYDROGRAPHIC COMMISSION (SWPHC)

(revised at the 12th Meeting of SWPHC, Port Vila, Vanuatu, 12-14 November 2013)

1. INTRODUCTION

- a. The South West Pacific Hydrographic Commission (hereinafter referred to as “The Commission”) is hereby established in conformity with Resolution 2/1997 as amended (formerly Administrative Resolution T1.3) of the International Hydrographic Organization (IHO).
- b. The geographic area covered by the Commission (hereinafter referred to as “The Region”) shall be that defined by the IHO INT Charting Scheme Region L together with the waters of those Pacific Island States that are members of the Secretariat of the Pacific Community (SPC).

2. MEMBERSHIP

- a. Full Members of the Commission shall be IHO Member States in the Region who are signatories to these statutes.
- b. States lying within the Region who are not Members of the IHO but who are signatories of these statutes may become Associate Members of the Commission. Other Member States of the IHO who contribute to the safety of navigation through their activities in the fields of hydrography, nautical charting or nautical information in the region and are signatories to these statutes may also become Associate Members. They are represented by their national authorities responsible for hydrography and/or navigation.
- c. Associate Members shall have the same rights and obligations as the Full Members of the Commission, except the right to vote and the right to be elected as Chairman or Vice-Chairman.
- d. Observers. Observers may take part in the discussions but shall not have voting rights.
 - i) Adjacent Hydrographic Commissions and/or co-ordinating countries for Areas of IHO INT Charting Scheme bordering Region L (i.e. Regions A, C2, H, J and K) may be invited to send representatives to attend the Commission’s conferences as Observers.
 - ii) Other Member States of the IHO who are not signatories to these statutes but who contribute to the safety of navigation by their activities in the fields of hydrography, nautical charting or nautical information in the region may also participate as Observers.
 - iii) Other States within the region who are not members of IHO may also attend the Commission’s conferences as observers, and
 - iv) Organizations active in the region in the fields of hydrography, maritime safety, or related fields may also participate as Observers.
- v) Commercial Industry participation will be classed as Expert Contributors. The Chair may invite Expert Contributors to attend the commission as observers.

3. OBJECTIVES

The objectives of the Commission, which is an integral part of the IHO, shall be:

- a. To promote technical co-operation and training and to conduct joint research where appropriate in the domain of hydrographic surveying, marine cartography, and nautical information.
- b. To examine the implications, in its area of interest, of matters of general interest with which the IHO is concerned, avoiding any interference with the prerogatives of the International Hydrographic Bureau (IHB) and of any other bodies set up by the IHO.
- c. To stimulate its Members to widen hydrographic activity in its area of interest, and to encourage them to seek technical advice and assistance from the IHB in establishing and strengthening their hydrographic capabilities.
- d. To facilitate the exchange of information concerning surveys, research or scientific and technical developments, to aid in the planning and organisation of hydrographic activities in the widest sense of the term, but without interference in the national responsibilities of each Hydrographic Office.
- e. To encourage development of INT Chart Programme and liaise with the relevant Regional International Chart Committees.
- f. To encourage implementation of the Global Maritime Distress and Safety Systems.
- g. To carry out certain studies as an IHO Working Group when considered appropriate.

4. CONFERENCES

- a. The Commission shall meet in plenary Conference within the Region, at least twice between two successive ordinary International Hydrographic Conferences. The Conference shall normally be for two days. Time shall be allowed for bilateral discussions.
- b. An invitation to attend the Conference shall invariably be addressed to the Directing Committee of the International Hydrographic Bureau.
- c. Members shall be represented at conferences by heads of Hydrographic Services or their representatives, or, where such services do not exist, by heads of national authorities responsible for hydrography and navigation. They may also be accompanied by members of their staff, but it is most desirable that their number be kept to a minimum.
- d. The presence of two-thirds (2/3) of the Full Members of the Commission shall constitute a quorum.
- e. The Commission may set up small committees of Members interested in particular projects with the object of examining and executing such projects
- f. At the end of each conference the Full Members desirous of hosting the following conference shall put forward their candidatures. Proposals for holding the conference in an Associate Member or Observer State may also be considered. Where no other compelling circumstances exist, priority shall be given to a Full Member state which has not yet hosted a conference, or to the one which did so the longest time ago.
- g. Requests for extraordinary meetings of the Commission may be raised by Full Members and forwarded to the Chairman. Upon receipt the Chairman will canvass other Full Members to confirm the requirement for an extraordinary meeting and ascertain the most convenient venue and timing.

5. CHAIRMAN

- a. At the conclusion of the Conference the Chairman for the next Conference shall be elected (see 4f) and shall take up his duties within three months following the Conference. He shall remain in office until the end of the next Conference but may stand for re-election.
- b. A Vice-Chairman shall be elected at the same time, in case the Chairman requires a deputy to attend to the affairs of the Commission.
- c. In the interval between the two Conferences the outgoing Chairman shall conclude the business of the last Conference within three months. Thereafter the incoming Chairman shall provide the secretariat for the Commission and shall attend to all matters of interest by correspondence.
- d. If the Chairman, or the Vice-Chairman, is unable to officiate, he shall be replaced by his successor or his deputy in his office.

6. RESOLUTIONS AND DECISIONS

- a. The resolutions and decisions of the Conference should normally be reached by consensus of the Members. If consensus cannot be reached, resolutions and decisions, except those relating to the Statutes, shall be by a simple majority of Full Members in attendance.
- b. Should a vote be required, in the absence of consensus of Members, Full Members only will be entitled to vote, each having the right to one vote. The voting shall be by a show of hands.
- c. At the end of the Conference, the Chairman shall read the text of the decisions taken during the Conference. All decisions become operative within three months after the Conference.
- d. The Chairman shall dispatch within one month of the close of the conference a copy of the Summary Report containing the discussions, decisions and recommendations of the conference for verification or comment to each Member, Associate Member and Observer. Comments are to reach the Chairman within one month of the receipt of the Summary Report.

7. SECRETARIAT FUNCTIONS

- a. Proposals to be included in the Agenda of a Conference must be sent to the Chairman with a copy to the Vice-Chairman at least three months before the date fixed for the opening of the Conference.
- b. The Chairman shall prepare the Provisional Agenda and List of Participants in consultation with the Vice-Chairman and forward them to the participants at least one month before the opening of the Conference. One of the items of the Agenda shall be the Chairman's report on the activities of the Commission since the last Conference.
- c. The Chairman will report the activities and future plans of the Commission to the relevant sessions of the International Hydrographic Conference. Between sessions, reports of studies or other activities which may be considered of general interest to all Member States should be reported by the Chairman to the IHB for general dissemination. The Chairman will also submit a report on the activities of the Commission for inclusion in the IHO Annual Report.

8. EXPENSES

- a. The host State shall normally be responsible for the organisation of the Conference for which this host State shall pay the expenses except expenses described in (b) below. Where the Commission resolves that a Conference should be held in a regional State who has not agreed in advance to host the Conference then a method of arranging and funding the Conference must be determined by the Commission with the mutual agreement of the State.

b. Travelling, hotel and per diem expenses of delegates and other attendees shall be defrayed by their respective organization.

9. SELECTION OF COMMISSION REPRESENTATIVE(S) TO THE IHO COUNCIL

The Commission representative(s) to the IHO Council will be elected by postal vote once the number of seats allocated to the Commission and the names of States eligible for selection have been advised by the Secretary-General in accordance with Article 16 (b) of the IHO General Regulations. The election will be conducted according to the procedure agreed by the Commission.

10. COMMUNICATIONS

Members are required to ensure that their contact details in the IHO Yearbook (P-5) are correct. All official communications of the Commission will be dispatched to members in accordance with the IHO Yearbook details.

11. LANGUAGE

The working language of the Commission shall be English.

12. CHANGES TO THE STATUTES

Members of the Commission may propose amendments to the present Statutes. These amendments shall be discussed at the Conference and the outcome included in the report of the Conference. An amendment must be approved by a two-thirds (2/3) majority of the Full Members of the Commission. If, because of absence of Full Members, a decision cannot be reached at the Conference, it may be dealt with by correspondence.

13. CUSTODIANSHIP OF THE STATUTES

The IHB will be the Custodian of the Statutes of the Commission.

12th South West Pacific Hydrographic Commission Meeting

12th – 14th November 2013
Port Vila, Vanuatu

SWPHC12 Minutes –
Annex C

Draft Minutes Annex C

Planned Capacity Building Activities 2012-2017

Activities and Courses	2010	2011	2012	2013	2014	2015	2016	2017
Technical and Advisory Visits								
Technical Assessment & Advice Visit		Cook Islands, Kiribati, Vanuatu (completed)		Tonga	Samoa			
Technical visit to facilitate National Hydrographic Requirements			Solomon Islands (completed)	Cook Islands (completed) Vanuatu <i>(in conjunction with SWPHC12 Meeting and Chart Quality Workshop in Vanuatu)</i>		Kiribati Tonga Vanuatu	Samoa	
Technical Workshops, Seminars, Short Courses								
MSI Course (3 days)	SWP nations (completed – Sydney, Australia, 17-19 Aug 2010)				SWP nations (Aug 2014)			SWP nations
Phase 1 Skills: An introduction to the assessment and promulgation of navigationally significant data (5 days)								

Activities and Courses	2010	2011	2012	2013	2014	2015	2016	2017
Technical Workshops, Seminars, Short Courses								
Port & Shallow Water Bathymetry Technical Workshop (2 days)			SWP nations, SPC (completed – Brisbane, Aust., 13-4 Feb 12)			SWP nations SPC		
Regional Training in Hydrographic Surveying, Cartography and MSI (10 days)	SWP nations (completed – Port Moresby, PNG, 11-22 Oct 2010)		SWP nations, SPC (completed - Suva, Fiji, 24Sep-5Oct 12)		SWP nations, SPC (Fiji, Feb 2014)		SWP nations, SPC	
Chart Quality Technical Workshop (2 days)				SWP nations, SPC (Not Approved)		SWP nations, SPC		
Tides and Water Level Workshop (5 days)						SWP nations, SPC		
Basic ENC and ENC Production Course (10 days)								
MBES Processing (5 days)								
Law of the Sea Workshop (5 days)								
MSDI and Database Management (5 days)								
ENC Production and QA (5 days)								
Tsunami Inundation mapping workshop (5 days)								
Seabed Classification Workshop (5 days)								

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ACTION LIST

SWPHC12 Action Item	SWPHC12 Agenda Item	SWPHC12 Action	Action by	Deadline	Status
12,01	3	(From SWPHC11 Item 11.12) Monitor invitations to remaining Observer States (Nauru and Tuvalu) to become Associate Members of the SWPHC by acceding to the Statutes of the Commission.	Australia	SWPHC 13	
12,02	4.6	All Member States - present and not present - to update and return to IHO their national entry in IHO Publication P-5 (Year Book). SPC to coordinate responses from non-MS in the region and forward to IHB.	SWPHC MS and SPC	31 Jan 2014 & ongoing	
12,03	5.1	It was agreed that the proposed document regarding roles and responsibilities of SWPHC host nations (document SWPHC12-05b) should be included on SWPHC website.	Chair (UK)	31 Jan 2014	In Progress Sent to IHB twice and requested to be included on website
12,04	5.2	It was agreed that New Caledonia should become an Observer to the SWPHC. (A signed copy of the statutes was provided by New Caledonia in anticipation of agreement.) Relevant documentation should be amended accordingly.	Chair (UK)	31 Jan 2014	Completed Signed statutes sent to IHB, pages on IHO SWPHC website
12,05	7.1	SWPHC noted that other RHCs have been including the work of the regional ICCWG as part of the plenary session and agreed to adopt a similar approach. Chair to include as agenda item at next meeting.	Chair (Australia)	SWPHC 13	

SWPHC12 Action Item	SWPHC12 Agenda Item	SWPHC12 Action	Action by	Deadline	Status
12,06	7,2	NZ introduced the concept of a CB Maturity Model and was requested to provide further explanatory notes via the Chair for MS to comment.	New Zealand	30 Nov 2013	
12,07	7.2	NZ introduced a CB questionnaire for completion. It was agreed that the questionnaire should be sent to all participants and States within the region for completion and return to CB Coordinator (NZ).	New Zealand	Questionnaire to be sent out by November 2013 and responses returned to New Zealand by mid-December 2013.	
12,08	7.2	Establish CB WG to work on CB work plan, maturity model framework and future initiatives.	New Zealand	31 Mar 2014	
12,09	7.2	New Zealand to provide list of donors to contact in order to secure CB buy-in.	New Zealand	31 Mar 2014	
12,10	8.1	MS to support SPC as required in drafting Framework Document regarding Action on Hydrographic Services in Pacific region.	SWPHC MS	Ongoing	
12,11	11.1	The IHO presentation regarding the Need for Hydrographic Services should be made more widely available via the SWPHC website.	Chair (UK)	31 Jan 2014	Completed On IHO SWPHC12 web page
12,12	11.1	All States in the region that do not have the necessary spatial infrastructure to submit their data to SPC. SPC to obtain permission from States in the region to release data (and associated metadata) to PCAs for charting action.	All States SPC	30 Apr 2014	
12,13	12.1	It was agreed that NZ should produce an article regarding the risk assessment methodology used in Vanuatu for publication in Hydro International, the International Hydrographic Review (and potentially other publications).	New Zealand	30 Apr 2014	
12,14	12.1	SWPHC12 endorsed the risk methodology used in Vanuatu and agreed that it should be similarly used by NZ in the upcoming assessments in Tonga and Cook Islands.	New Zealand	Ongoing	

SWPHC12 Action Item	SWPHC12 Agenda Item	SWPHC12 Action	Action by	Deadline	Status
12,15	12.1	SWPHC12 agreed that such methodology should be considered for other assessments within the region and part of a wider CB plan, but that future analysis should be mindful of the potential dangers of 'risk rankings'.	New Zealand	Ongoing	
12,16	16.2	Papua New Guinea to work with SPC to design potential logos for SWPHC.	Papua New Guinea and SPC	To be presented at SWPHC13	
12,17	18	New Zealand to draft Information Paper for EIHC5 regarding SWPHC CB Strategy and send to SWPHC Chair.	New Zealand	15-mars-14	In Progress
12,18	18	Chair to ensure notification of Information Paper above (12.16) is made to EIHC5. Paper to be submitted to IRCC on behalf of the SWPHC.	Chair (Australia)	31-mars-14	
12,19	19	Amend statutes to introduce new category of 'Expert Contributors' and to recommend that 'Expert Contributors' would be allowed to attend the commission by invitation only.	Chair (UK)	31 Jan 2014	Completed Annex B of SWPHC12 Minutes
12,20	20	To ensure the following items are reported to IRCC6: a) Risk Assessment Methodology best practice (using LINZ and IALA as examples) b) Notification of threats, issues and solutions as has recently happened in Vanuatu c) Risk Assessment Methodology to be considered by IRCC as a proposal to EIHC	Chair (Australia)	7 weeks prior to IRCC6 (31 March 2014)	
12,21	21	Contact Cook Islands as necessary regarding SWPHC13 hosting	Chair (Australia)	30 Apr 2014	
12,22	22	Transfer Chair to AU and retain Vice chair with PNG	Chair (UK)	15 Feb 2014	Completed
12,23	23	Chair to contact each delegate's patron (cc delegate) highlighting usefulness of SWPHC	Chair (UK)	31 Dec 2013	Completed