

THE NIPPON FOUNDATION-GEBCO

SEABED 2030



Webinar 4: Moving Ahead together: Summary, Next Steps and Wrap up

Webinar Chair:

Mr. Stuart Caie, SWPHC Seabed 2030/CSB
Coordinator

Contributors:

Mr. Kevin Mackay, Head Seabed 2030 South
and West Pacific Regional Center

Cdr Christoff Theunissen, Acting South African
National Hydrographer

Ms. Jennifer Jencks, Director IHO Data Center
for Digital Bathymetry



IHO

International
Hydrographic
Organization



Intergovernmental
Oceanographic
Commission



2021
United Nations Decade
of Ocean Science
for Sustainable Development

2022 SWPHC Seabed 2030/CSB Webinar Series: Webinar 4, July 1, 2022

Today's Agenda

13:00 - 13:05 Welcome

13:05 - 13:20 Introduction, Recap and Homework Review

13:20 - 13:50 South African & Islands Hydrographic Commission CSB & Seabed 2030 activities
(Cdr Christoff Theunissen)

13:50 - 14:15 SWPHC Work Plan

14:15 - 15:00 Summary of series & wrap-up



THE NIPPON FOUNDATION-GEBCO

SEABED 2030

Introduction, Recap & Homework Review

Mr. Stuart Caie, SWPHC Seabed
2030/CSB Coordinator



International
Hydrographic
Organization



Intergovernmental
Oceanographic
Commission



2022 SWPHC Seabed 2030/CSB Webinar Series: Webinar 4, July 1, 2022

Overview of Webinar Series



Objectives of this Webinar Series

- Overview & Introduction:
 - Objectives, strategy and motivation of the Nippon Foundation - GEBCO Seabed 2030 Project
- Promote collaboration and coordination
- Review current status of ocean mapping for this region
- Demonstrate online tools that are available
- Engage the community of stakeholders
 - Gather information about existing data, planned mapping efforts
 - Input on needs of stakeholders with respect to tools, workflows, regional mapping priorities
- **Develop a strategy for completing mapping of the region by 2030?**



Webinar Schedule

- Webinar 1 - May 10: Where are we now? Introduction and Goals including review of current mapping status in the region
- Webinar 2 - May 24: How do we build the map? How can you contribute data?
- Webinar 3 - June 21: Increasing Data Coverage: Crowdsourced Bathymetry and Data Coverage Polygons
- **Webinar 4 - July 1: Moving Ahead Together: Summary, Next Steps and Wrap up.**



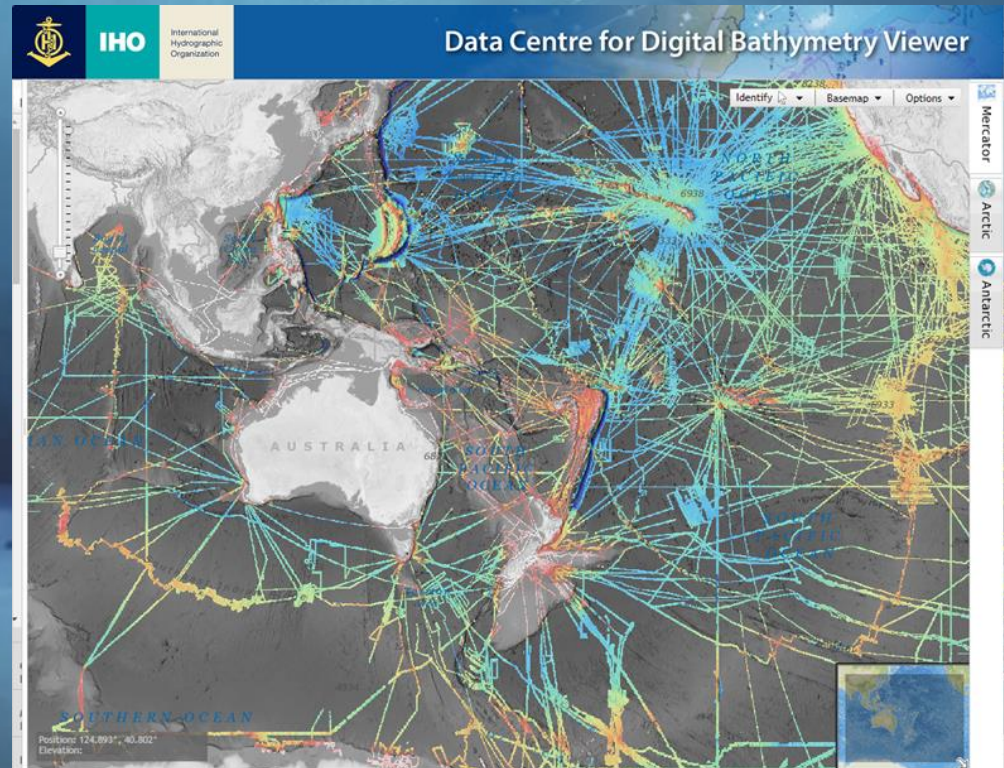
Goals for today

- Discussion and review previous webinars and Homework
- Understanding barriers in response to CLs regarding availability of CSB data
- Exposure to CSB & Seabed 2030 activities in SAIHC (ideas for your own CSB projects!)
- Review of Seabed 2030/CSB related activities in SWPHC Work Plan
- Wrap up



Recap Webinar 1: Where are we now?

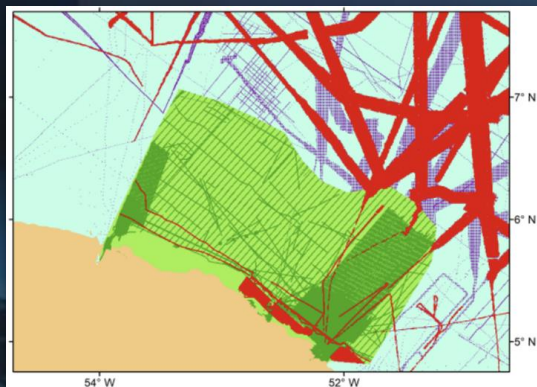
- Introduction to Seabed 2030 & South and West Pacific Regional Center
- Introduction to IHO Digital Centre for Digital Bathymetry (DCDB)
- Status of mapping in the region



ncei.noaa.gov/maps/iho_dcdb/

Recap Webinar 2: How do we build the map?

- Data Assembly Process
 - Type Identifier (TID) Grid
- How to access data
- How to contribute data



[Home](#) » [About](#) » [Contributing data](#)

How to contribute data

Please use the form below to make contributions of multibeam and/ or single-beam survey data, individual soundings or existing grids to help update our gridded data sets and products. If you have any problems in completing the form, then please email this information to the Global Center (gdacc@seabed2030.org).

GEBCO Data Contribution Form

GEBCO's aim is to provide the most authoritative, publicly-available bathymetry of the world's oceans. It operates under the joint auspices of the International

IHO Data Centre for Digital Bathymetry (DCDB)

The IHO DCDB was established in 1990 to steward the worldwide collection of bathymetric data. The Centre archives and shares, freely and without restrictions, depth data contributed by mariners. The IHO DCDB is hosted by the [U.S. National Oceanic and Atmospheric Administration \(NOAA\)](#) on behalf of the IHO Member States.

The DCDB archive includes over 30 terabytes of oceanic depth soundings acquired with multibeam and singlebeam sonars by hydrographic, oceanographic and industry vessels during surveys or while on passage.

The DCDB also archives and provides access to data contributed in support of the [IHO Crowdsourced Bathymetry \(CSB\) initiative](#).

The [IHO DCDB Data Viewer](#) shows the global coverage of the DCDB's bathymetric data holdings as well as the spatial extent of data archived at other repositories via web services.

[Access Data](#)

Jump to

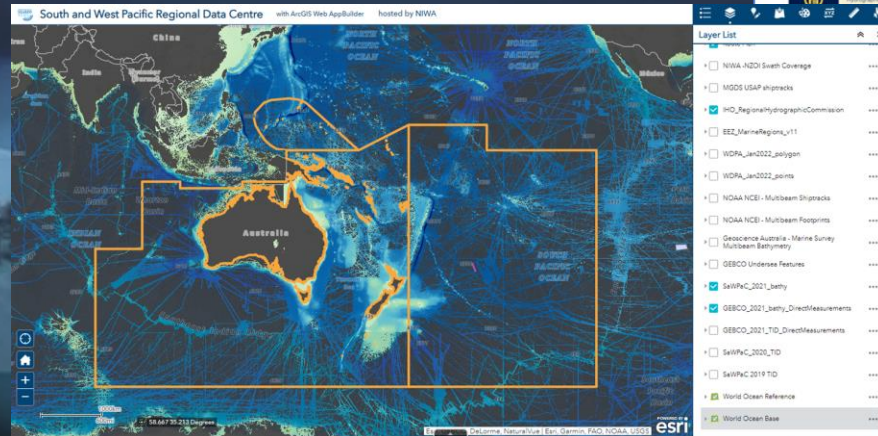
- > [Our data contributors](#)
- > [Join the Crowdsourced Bathymetry initiative](#)

Share this



Recap Webinar 3: CSB and the role of HOs and other data collectors

- IHO CSB Initiative - Introduction, description of how CSB can be used and contributed to the IHO DCDB, and how you and Hydrographic Offices can become involved.



Homework #3

1. Encourage the review and response of IHO CL 21/2020 and IRCC CL 1/2020 by SWPHC20 (February 2023)
2. Consider participating in the next round of CSB Field Trials by receiving Seabed 2030-funded data loggers
3. Consider attending next IHO CSBWG (January, 2023)
4. Contribute shapefiles/polygons of existing coverage and planned surveys to SaWPaC
5. Assemble information about technical challenges that we might be able to help you address



Homework #3 Discussion/Questions

1. Encourage the review and response of IHO CL 21/2020 and IRCC CL 1/2020 SWPHC20 (February 2023)





IHO

CL Questionnaires ask:

International
Hydrographic
Organization

For each area of jurisdiction (internal waters, territorial sea, EEZ):

- Do you support or object to the CSB data provision for depth measurements?
- Do you wish to be informed when such information is received by the IHO DCDB?
- Do you wish to review such information before its ingestion into the IHO DCDB?
- Do you wish for the opportunity to put caveats on the further dissemination of such data?

Enclosure to IHO CL 21/2020
IHO File S3/2649

CROWDSOURCED BATHYMETRY DATA PROVISION – COASTAL STATE POSITION FOR WATERS SUBJECT TO THEIR NATIONAL JURISDICTION

TEMPLATE FORM

(to be returned to the IHO Secretariat **no later than 4 September 2020**)

E-mail: cl-lc@iho.int - Fax: +377 93 10 81 40)

IHO clarification on Crowdsourced Bathymetry Activity

For the purpose of this Circular Letter, the following terms have the specified meanings:

Bathymetry is the determination of ocean, coastal, and inland water depths. The general configuration of sea floor as determined by profile analysis of depth data.

Crowdsourcing is a process by which people and/or groups voluntarily submit observations, data, or information to accomplish a task or goal.

Crowdsourced bathymetry is defined by the IHO as the collection of depth measurements from vessels, using standard navigation instruments, while engaged in routine maritime operations.

Crowdsourced bathymetry data provision is the transmission to the IHO Data Centre for Digital Bathymetry for ingestion, aggregation, categorization, and public dissemination of depth measurements made by vessels, using standard navigation instruments, while engaged in routine maritime operations.

IHO Data Centre for Digital Bathymetry (DCDB) was established in 1990 to steward the worldwide repository of bathymetric data. The Centre archives and shares, freely and without restrictions, depth data contributed by mariners. The IHO DCDB is an IHO resource that is hosted by the U.S. National Oceanic and Atmospheric Administration (NOAA) on behalf of IHO Member States.

Internal Waters, Territorial Sea, and Exclusive Economic Zone have the same meanings as are given those terms under the 1982 UN Convention on the Law of the Sea.

Questions:

- 1) Do you support or object to the crowdsourced bathymetry data provision for depth measurements from the internal waters of your country?

SUPPORT ☐

OBJECT ☐

CAVEAT:



IHO

To date, only 31 coastal States have replied positively

Why?

The following are the general reasons given for negative responses to CL 21/2020:

- i. National HO is the sole competent authority for bathymetric data provision within waters of national jurisdiction;
- ii. MBES is allowed only after prior consent of the national HO, complete datasets should be shared with the national HO in full;
- iii. No MBES activity without prior permission, copy of dataset must be provided to the national HO;
- iv. Support for CSB data provision from the waters of the IHO members states which have not achieved full survey coverage; not used CSB data because waters fully covered systematic surveys;
- v. According to national regulations the performing of scientific research, any study and survey of the sea, seabed or its subsoil or performing other underwater activities in the waters of national jurisdiction is only permissible on the basis of a prior approval to be issued by the relevant government authorities;



IHO

International
Hydrographic
Organization

To date, only 31 coastal States have replied positively

Why?

- vi. Any foreign organization, foreigner or national with an intention of carrying out CSB activities in waters of national jurisdiction must obtain authorization from the relevant government authority. No MBES activity in the waters of national jurisdiction is allowed without prior permission;
- vii. According to the national legislation bathymetry is classified in the internal and territorial sea, so CSB is prohibited;
- viii. Opposed to the free use of this data from the waters of national jurisdiction without the express consent of the relevant Coastal State;
- ix. Only for areas of 200 m depth or greater; and
- x. All EEZ areas have been surveyed to IHO S-44 Edition 5 Order 1a.



IHO

International
Hydrographic
Organization

To date, only 31 coastal States have replied positively

Why?

“It is clear from many of the responses that there remains significant confusion of where CSB lies within UNCLOS and different coastal states have their own interpretation.

In addition it is evident that only a Yes/No answer has been considered, rather than a broader approach taken to consider at what resolution would it be acceptable to provide data...”

- IHO Secretariat, “Responses to IHO Circular Letters on CSB”





IHO

International
Hydrographic
Organization

Guiding terminology for Data Gathering Activities

2. It is proposed that the following guidance is considered when describing and differentiating between the three general approaches:
 - i. CSB – Random unplanned gathering of depth soundings generated with standard vessel navigation equipment fit of echo sounder and uncorrected GNSS positioning while underway at sea;
 - ii. Transit – Pre-planned gathering of depth soundings generated with survey or research vessel equipment fit of multibeam or single beam echo sounder and corrected GNSS positioning, on pre-planned routes in transit to or from sites of operation, may include investigation of navigationally significant features found; and
 - iii. Survey – Pre-planned systematic seabed measuring campaign of a specific site of operation in accordance with a specified project or detailed requirement, undertaken by survey vessels fitted with multiple hydroacoustic sensor equipment and high accuracy positioning systems.

Homework #3 Discussion/Questions

1. Encourage the review and response of IHO CL 21/2020 and IRCC CL 1/2020 SWPHC20 (February 2023)

Action: CSB/Seabed 2030 Regional Coordinator will be contacting each SWPHC member to better understand any barriers they perceive are preventing them responding positively.



Homework #3 Discussion/Questions cont...

2. Are there organizations potentially interested in participating in a Seabed 2030-funded CSB Field Trials in our region?

Receive FREE DATA LOGGERS

- *Distribute to your community*
- *Assist local mariners in set up*
- *Act as a data assembly center*
- *Provide a copy of these data to the IHO DCDB*

3. Any other information on planned surveys or existing coverage to contribute to the WebApp layer?
3. Any other technical challenges?



Southern Africa & Islands Hydrographic Commission CSB & Seabed 2030 activities (Cdr Christoff Theunissen)





RSA Seabed 2030 CSB Efforts

**Seabed 2030 Update and Lessons Learned
from SAIHC Coordinator**

**Commander Christoff Theunissen
South African Navy Hydrographic Office**

SWPHC – 01 July 2022



IHO

BACKGROUND & TRIAL CONCEPT



International
Hydrographic
Organization

1. Agreement reached to participate in a trial with the IHO and Seabed 2030 by deploying data loggers in RSA waters, for eventual roll-out to SAIHC.
2. SANHO / Institute for Maritime Technology (IMT) technical partnership.
3. The trial concept: **Part 1: Data Collection**
 - Seabed 2030 supplied data loggers to South Africa
 - 50 TeamSurv NMEA Data Loggers (2020)
 - 50 Yacht Devices Voyage Recorder (2021)
 - Technical visits, logger installation, setting to work and initial data processing - IMT.
 - Checking data, QC, rendering and preserving data in central database before distribution to Seabed 2030 community - SANHO.

Part 2: Data Sharing

- Existing survey data / bathymetric datasets / gridded products - Survey / Exploration / Engineering sectors.
- Low density datasets & gridded products (large grid/bin sizes), polygons of areas surveyed/explored where data exists.





IHO

EXECUTING THE TRIAL



International
Hydrographic
Organization

1. Identify and introduce the concept the SA & SAIHC role-players (**Part 1 & 2**): **Ongoing**
 - CSBWG11 (2021): **26 Stakeholders identified & approached, 23 favourable response.**
 - CSBWG12 (2022): **+2 Stakeholders identified & approached.**
 - Commercial Fishing Industries.
 - Recreational boating (fishing and diving charters).
 - Government Vessels (SA Navy and Research vessels).
 - Small scale / subsistence fishing community.
 - Private sector.
 - SAIHC Member States.
2. Establish working relationships with participating Stakeholders (**Part 1 & 2**): **23 Stakeholders, Ongoing.**
3. Identify suitable vessels and conduct feasibility study (**Part 1**): **6 successful visits, Ongoing.**
4. Install and set data loggers to work :
 - CSBWG11 (2021): **4 loggers installed and set to work (M/V Edinburgh, 2 x NSRI, IMT).**
 - CSBWG12 (2022): **6 loggers installed and set to work (+2 recreational private boats).**





IHO

EXECUTING THE TRIAL



International
Hydrographic
Organization

NEW since CSBWG11



“Sea Lab 1”, IMT
– trial deployment, SOP development



“M/V Edinburgh”
– Ovenstone Agencies (Tristan Lobster)
– 2 deployments to Tristan Da Cunha
– 50% success rate
– data received/processed (TeamSurv)



NSRI Rescue Launches (2)
– Station 10 & 17
– 50% success rate
– 10: data received/processed (TeamSurv)
– 17: no data recorded (Yacht Devices)



Lower Breede River Conservancy
– Patrol Boat (ski-boat)
– data to be retrieved (TeamSurv)



“Why Knot”
– Lower Breede River Conservancy
– private recreational boat
– data to be retrieved (TeamSurv)



NSRI Rescue Launches (1)
– New launch being built
– 1st East Coast vessel (Durban)





IHO

EXECUTING THE TRIAL



5. Data Sharing (*Part 2*):
 - **8 stakeholders providing datasets & gridded products,**
 - **1 providing polygons of areas surveyed,**
 - **1 talks in progress, and**
 - **5 stakeholders provided further contact information only**
 - **3 new potential stakeholders (loggers and/or data)**
 - **shared data collated, submitted to GEBCO**
6. Establish a feedback loop to coordinate activities and provide up to date information on activities, challenges and opportunities: **Ongoing**
7. Provide ongoing technical assistance when required: **Ongoing**
8. Participation credited on SANHO website: **Ongoing**
9. Inviting SAIHC Member States & Primary Charting Authorities to participate in CSB efforts.





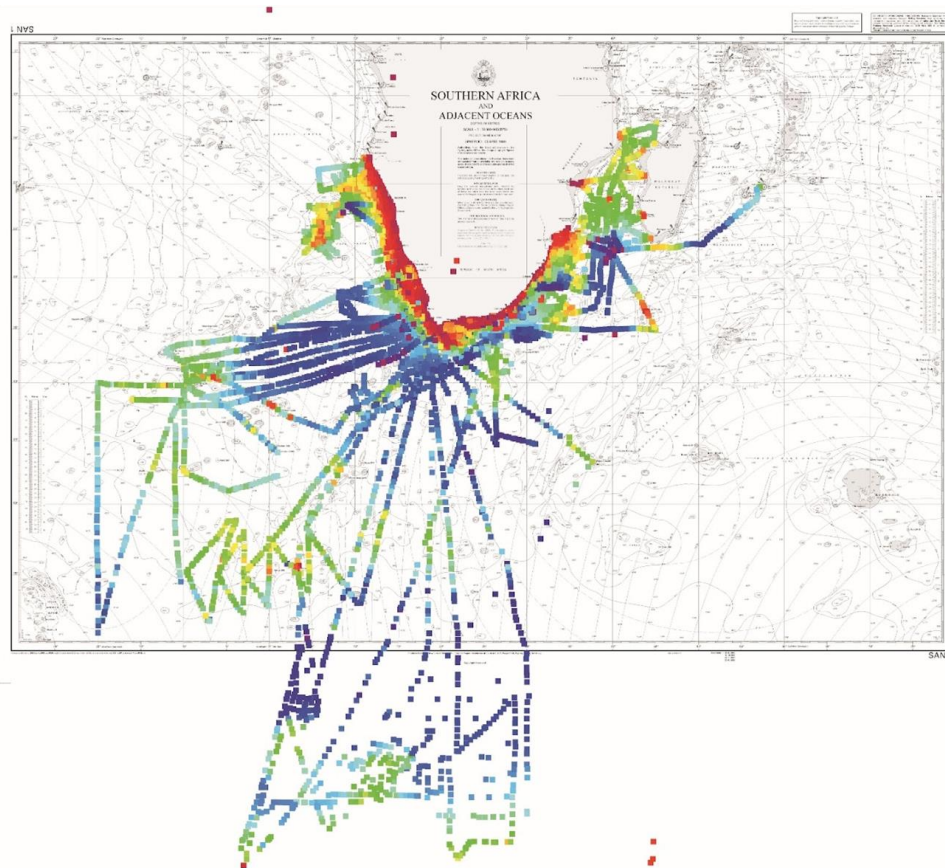
IHO

SHARED DATA



International
Hydrographic
Organization

Shared data submitted to
GEBCO



SWPHC – 01 July 2022





IHO

CHALLENGES & OPPORTUNITIES



International
Hydrographic
Organization

Challenges:

- Low / tentative responses from commercial fishing and offshore mining industries: commercial sensitive information ➡ continue talks, demonstrate that information will be in safe custody. **Ongoing**
- COVID-19 Pandemic restrictions: quarantined vessels, restrictions on travel/meetings easing off. **Ongoing**
- Lengthy decision-making processes for participation approval: ➡ continuous follow-up. **Ongoing**
- Limited off-the-shelf deployments: mostly coastal traffic, used bolster own database and develop “showcase model”. **Ongoing**
- SAIHC Member States not committed to CSB yet: Member States invited to note IHO Circular Letter 06/2020, and encourage authorities to participate in CSB within National Waters of Jurisdiction. **Ongoing**

...since CSBWG11:

- Data acquisition and processing: variety of sensors presents variety of data formats, especially with TeamServ loggers ➡ Python open source code adaptable to meet individual data string requirements for processing essential data, but at this point there is no “one code for all” solution.
- TeamServ USB reliability: 2/4 TeamServ loggers experienced faulty USB devices, resulting in 2nd M/V Edinburgh deployment data not being recorded ➡ replace TeamServ USBs with 16GB commercial off the shelf USB devices.
- Data quality: lack of calibration and sensor synchronisation presenting possible quality issues ito SP-44.

SWPHC – 01 July 2022





IHO

CHALLENGES & OPPORTUNITIES



International
Hydrographic
Organization

Opportunities:

- Primary Charting Authorities: invited to share CSB/GEBCO/Seabed 2030 contributions and activities with appropriate Hydrographic Commission CSB coordinators to track progress, identify challenges and opportunities.
- “First to Jump” willingness: initial challenge turned to opportunity ➡ develop “showcase model” to demonstrate process and results:
 - M/V Edinburgh paved the way.
 - 1st 2 NSRI launches proving concept, targeting next 8 launches to be built with loggers fitted as standard.
 - Lower Breede River Conservancy volunteered patrol boat, followed by “Why Knot” ➡ building trust and confidence with other owners/operators hopefully following suit.
- Local benefit: CSB providing opportunity for users of local inshore and estuarine waterways to collect data for creation of navigation aids where no charts exist/supplement existing charts:
 - direct, tangible benefit to local users.
 - cooperative relationship between SANHO, SA Maritime Safety Authority and boat owners/operators.





IHO

CHALLENGES & OPPORTUNITIES

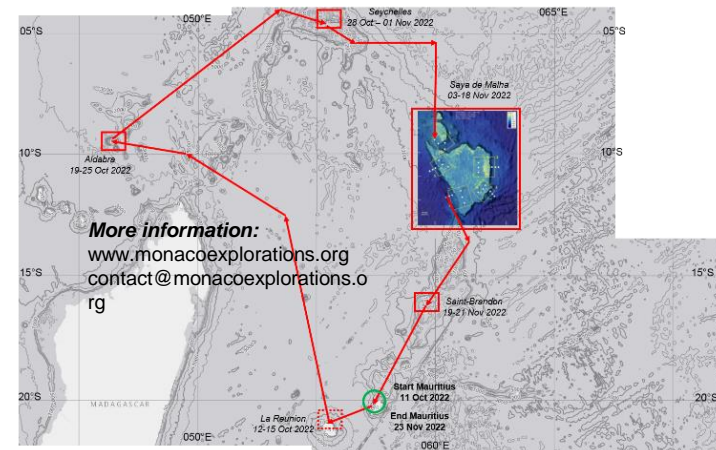


International
Hydrographic
Organization

Opportunities:

Monaco Explorations - Indian Ocean Expedition

- Objectives:
 - Advise stakeholders through a holistic scientific approach (sustainability science);
 - Share knowledge through an ambitious outreach programme;
 - Mobilize governments by making available information and analyses to support sustainable management of maritime areas.
- South African Navy Hydrographic Office (SANHO) supports the expedition through:
 - Assisting in planning the collection of bathymetric data as regional Seabed 2030 coordinator in liaison with the Atlantic and Indian Oceans Regional Center.
 - Conducting survey operations with S.A. Agulhas II (deep sea single beam echo sounder) and processing the data





Thank You



SWPHC – 01 July 2022

SWPHC Work Plan 2022-2023



Goal	Target	SPI	#	Activities	Lead	Timeframe
IHO Goal 2 Increasing the use of hydrographic data for the benefit of society	Build a portal to support and promote regional and international cooperation in marine spatial data infrastructures (MSDI)		16	Undertake a discover and catalogue exercise for SWPHC coastal states existing marine spatial data holdings	MSDIWG	2022
	Promote new tools and methods to accelerate and increase coverage, consistency, quality of surveying poorly surveyed areas	2.2.1	17	Promote the use of CSB & SDB tools and methodologies in SWP region	IHO CSBWG; SWPHC CSB/ Seabed 2030 Coordinator	2022-2030
			18	Report on gaps and opportunities in SWP data coverage	MSDIWG	SWPHC-20
	Apply UN shared guiding principles for geospatial information management in order to ensure interoperability and extended use of hydrographic data in combination with other marine-related data	2.3.1	19	Adoption and implementation of UN GGIM-IGIF-H	MSDIWG, Coastal states	2022 onwards
			20	Engage with regional organisations to encourage Coastal States to share data within the region and adopt open data policies	MSDIWG, Coastal States	
			21	Collaborate with regional bodies and coastal states to develop and promote a "data value proposition" and share within the region	MSDI WG TBC	TBC
			22	Engage with international and regional Donors and Development Partners to adopt open data policies when funding regional activities	IHO Sec, SWPHC Chair, MSDIWG	
			23	Share MSDI catalogue within the region (IHO portal of portals)	MSDIWG	Q4 2022
IHO Goal 3 Participating actively in international initiatives related to the knowledge and the sustainable use of the ocean	Collaborate with other bodies who deliver capacity building and training to improve effectiveness of capacity building activities and programmes	3.1.1	24	Deliver IHO CB funded workshop on Hydrographic Governance	SWPHC CB Coordinator	TBC f2f SWPHC20 - Q1 2023
			25	Deliver IHO CB funded workshop to SWPHC on MSI	SWPHC CB Coordinator	virtual 2022
			26	Engage with Pacific Community (SPC)	SWPHC Chair	Ongoing
			27	Engage with new IMO regional representative	SWPHC Chair	2022
			28	Engage with international and regional Donors and Development Partners	IHO Sec, SWPHC Chair, MSDIWG	2022
			29	Deliver IHO CB funded SWP Disaster response plan exercise	SWPHC Sec; SWPHC CB Coordinator	SWPHC21 2024
			30	Invite IHO Secretary General to consider a regional engagement plan and potential visit	SWPHC Chair	2022/ 2023
	improve knowledge of the worlds seafloors	3.2.3	31	Engage with regional bodies and coastal states and collaborate on projects under UN Decade of the Ocean	SWPHC /MS /AM	2022-2030
			32	Engage with Seabed 2030 project to support coverage goals	SWPHC CSB/ Seabed 2030 Coordinator	2022-2030
			33	Encourage MS and coastal states to supply ENC sounding data to Seabed 2030 and IHO DCDB	SWPHC MS / Coastal States	2022-2030
		3.2.1	34	Deliver Seabed 2030 webinar series in the region	SWPHC CSB/ Seabed 2030 Coordinator	2022
		3.2.1	35	Promote, initiate and coordinate CSB & SDB programs in SWP region and encourage coastal states to submit bathymetry data to Seabed 2030 and IHO DCDB	IHO CSBWG; SWPHC CSB/ Seabed 2030 Coordinator	2022-2030
		3.2.2				
	implement a comprehensive IHO digital communication strategy in order to enhance its visibility and accessibility to its work	3.3.1	36	Develop SWPHC digital communications strategy	SWPHC MS - HLP Cohort	2022
			37	Ensure IHO digital Communication strategy adequately covers the needs of the region	IHO Secretariat / SWPHC	TBC

SWPHC Work Plan Activities

IHO SP Goal 2: Increasing the use of hydrographic data for the benefit of society

Activity	Description	Lead	Timeframe
16	Undertake a discovery and catalogue exercise for SWPHC coastal states existing marine spatial data holdings	SWPHC MSDIWG	2022
17	Promote the use of CSB & SDB tools and methodologies in SWP region	IHO CSBWG; SWPHC CSB/ Seabed 2030 Coordinator	2022-2030
18	Report on gaps and opportunities in SWP data coverage	SWPHC MSDIWG	SWPHC20

SWPHC Work Plan Activities

IHO SP Goal 2: Increasing the use of hydrographic data for the benefit of society

Activity	Description	Lead	Timeframe
19	Adoption and implementation of UN-GGIM IGIF-H	MSDIWG	2022+
20	Engage with regional organisations to encourage Coastal States to share data within the region and adopt open data policies	MSDIWG, Coastal States	
21	Collaborate with regional bodies and coastal states to develop and promote a "data value proposition" and share within the region	MSDIWG, Coastal States	





UK Hydrographic
Office



Geodatastyrelsen
Danish Geodata Agency



Open
Geospatial
Consortium

IGIF-MSDI Maturity Roadmap

“Quick-Start Guide for undertaking an IGIF-aligned MSDI”

EUR ING **Dr Gerald J Wong** MPhys MBA EngD MIET MInstP CEng CPhys

UKHO Data Strategy and Information Governance Lead

Jens Peter Hartmann

Chair of the IHO *Marine Spatial Data Infrastructures* Working Group (MSDIWG), Danish Geodata Agency



Integrated Geospatial Information Framework-Hydro (IGIF-H) High Level

Two part document

Part One – background, challenges and introduction – Our desired Future

Part Two – broken down by IGIF Strategic pathways for the water domain

Scope – Oceans, Seas, rivers, waterways/watercourses, lakes, inland waters, wetlands, glaciers...

Part 1

- Overview
- Introduction and Background
- Our Desired Future
- Mission, Vision, and Goals

Part 2

- | | |
|---|--------------------------------|
| • A Value Proposition for the Marine Domain | • Standards |
| • Introduction | |
| • Governance and Institution | • Partnerships |
| • Legal and Policy | • Capacity and Education |
| • Data | • Communication and Engagement |

SWPHC Work Plan Activities

IHO SP Goal 2: Increasing the use of hydrographic data for the benefit of society

Activity	Description	Lead	Timeframe
19	Adoption and implementation of UN-GGIM IGIF-H	MSDIWG	2022+
20	Engage with regional organisations to encourage Coastal States to share data within the region and adopt open data policies	MSDIWG, Coastal States	
21	Collaborate with regional bodies and coastal states to develop and promote a "data value proposition" and share within the region	MSDIWG, Coastal States	

**14th MEETING OF THE IHO INTER-REGIONAL COORDINATING COMMITTEE
IHO-IRCC14**

Denpasar - Bali, Indonesia, 6-8 June 2022

Develop a strategy and implementation framework for RHCs to engage with international and regional agencies, development partners and coastal states to support:

- i. their understanding of hydrography, and**
- ii. their adoption and implementation of open data policies**

<i>Submitted by:</i>	SWPHC Chair, SWPHC Work Plan & Priorities WG
<i>Executive Summary:</i>	Across the SWPHC international and regional agencies and development partners provide funding and deliver technical assistance and capacity building. While many of these activities fund significant in-country data capture programmes which generate large volumes of marine geospatial information, the value of hydrography is too often overlooked. Furthermore, much of this data is not made discoverable and available by the recipient country. This results in duplication of effort and sub-optimum return on investment.
<i>Related Documents:</i>	IHO Strategic Plan 2021-26. SWPHC Work Plan 2022-23. The Statement of Shared Guiding Principles for Geospatial Information Management (UN-GGIM). IGIF Strategic Pathway 2, Policy and Legal.
<i>Related Projects:</i>	Implementation of the IHO Strategic Plan, Goal 2, Target 2.3

14th MEETING OF THE IHO INTER-REGIONAL COORDINATION COMMITTEE
IHO-IRCC14
Hybrid - Bali (TBC), Indonesia, 6-8 June 2022

List of Actions, Decisions and Recommendations

9. Other information papers

Action 17: Adam Greenland (lead), Evert Flier, Jens Peter Hartmann, Jennifer Jenks, Pearlyn Pang, France and UK to organize an IRCC workshop on how to engage with international and regional agencies, development partners and coastal states to support knowledge and understanding of hydrography and the value associated with open data policies in respect of marine geospatial information

Decision 47: Agree that the development and implementation of a strategy to engage with international and regional agencies, development partners and coastal states to support knowledge and understanding of hydrography and the value associated with open data policies in respect of marine geospatial information is a challenging and a common issue across RHCs.

Decision 48: Confirm that the lack of knowledge and understanding of hydrography and the value associated with open data policies is a barrier to achieving Goal 2 of the IHO Strategic Plan.

SWPHC Work Plan Activities

IHO SP Goal 3: Participating actively in international initiatives related to the knowledge and the sustainable use of the ocean

Activity	Description	Lead	Timeframe
31	Engage with regional bodies and coastal states and collaborate on projects under UN Decade of the Ocean (in response to SPI 3.2.3 <i>Number of contributors to DCDB who are not hydrographic offices</i>)	SWPHC MS / AM	2022-2030
32	Engage with Seabed 2030 project to support coverage goals (in response to SPI 3.2.3)	SWPHC CSB/ Seabed 2030 Coordinator	2022-2030
34	Deliver Seabed 2030 webinar series in the region (in response to SPI 3.2.1 <i>Amount of data received per year by the IHO Data Centre for Digital Bathymetry (DCDB)</i>)	MSDIWG, Coastal States	2022

SWPHC Work Plan Activities

IHO SP Goal 3: Participating actively in international initiatives related to the knowledge and the sustainable use of the ocean (continued)

Activity	Description	Lead	Timeframe
35	Promote, initiate and coordinate CSB & SDB programs in SWP region and encourage coastal states to submit bathymetry data to Seabed 2030 and IHO DCDB (in response to SPIs 3.2.1, 3.2.2 & 3.2.3)	IHO CSBWG; SWPHC CSB/ Seabed 2030 Coordinator	2022-2030



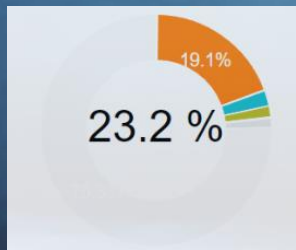
Wrap-up

What have we learnt?
What do we do next?
Who can you ask?



What have we learnt?

$X + Y =$



$X + Y + \mathbf{Z} = 100\%$

76.8% to map!

Is there anymore 'Y'?



It's one Ocean!



Seabed 2030 provides a mechanism to respond to national and international ocean priorities:

- UN General Assembly Resolution A/RES/72/73
 - Encourages Member States to consider contributing to mechanisms that encourage the widest possible availability of all bathymetric data, so as to support the sustainable development, management and governance of the marine environment
- Sustainable Development Goals SDG 14
- UN Ocean Decade activities



**IHO**International
Hydrographic
Organization

Data Centre for

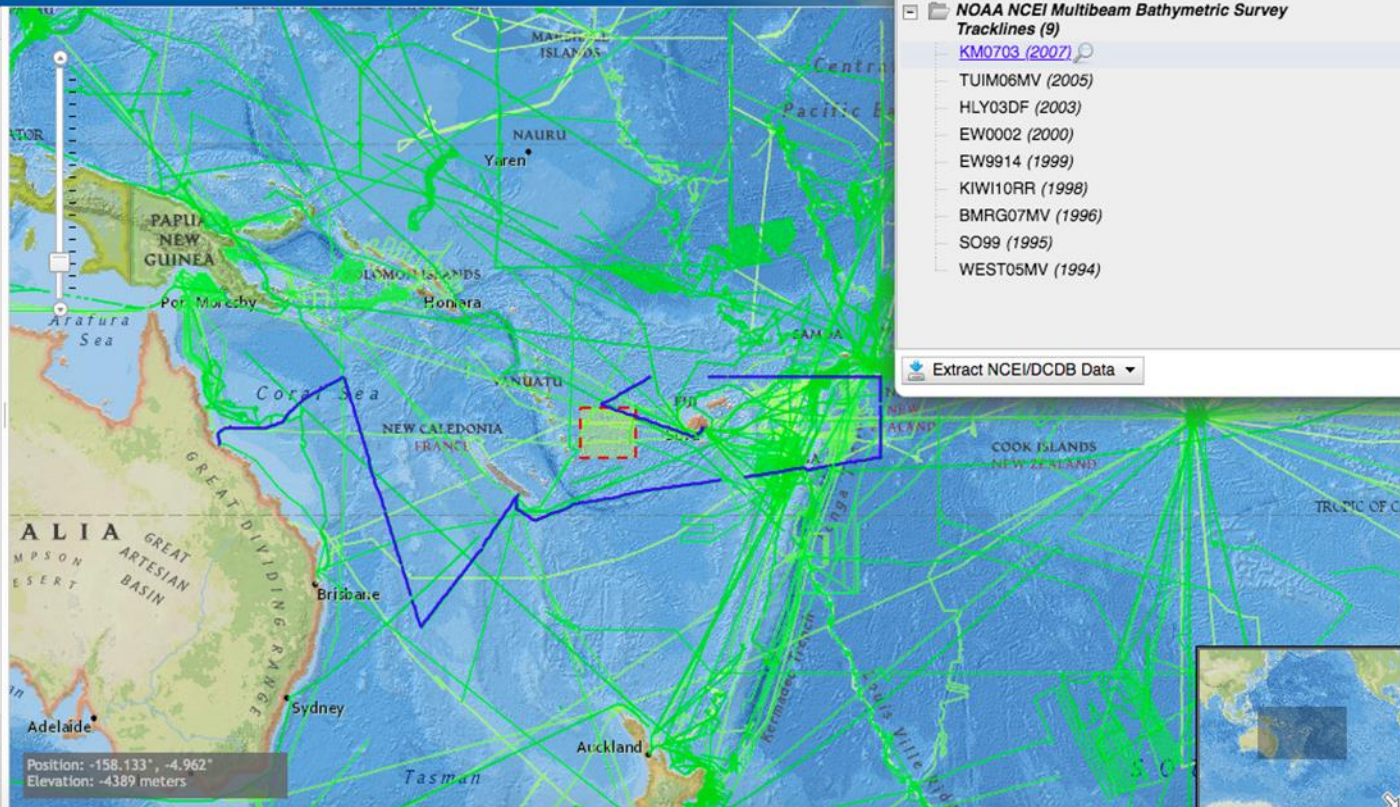
Layers

IHO DCDB/NOAA NCEI

- ☒ Multibeam Surveys
- ☐ Multibeam Survey Footprints
- ☐ Multibeam Bathymetry Mosaic
- ☐ Single-Beam Surveys
- ☐ Single-Beam Sounding Density
- ☐ NOAA Hydrographic Surveys:
 - ☒ All Surveys with Digital Data
 - ☐ Surveys with BAGs
- ☐ BAG Shaded Relief Imagery

 ☐ Crowdsourced Bathymetry Files ☐ U.S. Bathymetry Coverage and Gap Analysis

- EMODnet
- Australia
- Canada
- France
- Germany
- Japan
- Grid Extract
- More Information
- Help



Identified Features (9)

Note: WMS layers (EMODnet, AusSeabed, MAREANO) are only available using a point (single-click) to identify.

NOAA NCEI Multibeam Bathymetric Survey Tracklines (9)

- [KM0703 \(2007\)](#)
- TUIM06MV (2005)
- HLV03DF (2003)
- EW0002 (2000)
- EW9914 (1999)
- KIW10RR (1998)
- BMRG07MV (1996)
- SO99 (1995)
- WEST05MV (1994)



Contributing Data



[Home](#) » [About](#) » [Contributing data](#)

How to contribute data

Please use the form below to make contributions of multibeam and/ or single-beam survey data, individual soundings or existing grids to help update our gridded data sets and products. If you have any problems in completing the form, then please email this information to the Global Center (gdacc@seabed2030.org).

GEBCO Data Contribution Form

GEBCO's aim is to provide the most authoritative, publicly-available bathymetry of the world's oceans. It operates under the joint auspices of the International

Jump to

- [> Our data contributors](#)
- [> Join the Crowdsourced Bathymetry initiative](#)

Share this



What do we do next?

1. Encourage the review and response of IHO CL 21/2020 and IRCC CL 1/2020 by SWPHC20 (February 2023)
2. Consider participating in the next round of CSB Field Trials by receiving Seabed 2030-funded data loggers
3. Consider attending next IHO CSBWG (January, 2023)
4. Contribute shapefiles/polygons of existing coverage and planned surveys to SaWPaC
5. Assemble information about technical challenges that we might be able to help you address
6. Get involved with SWPHC Work Plan Activities



Who can you ask?

SWPHC Seabed 2030/CSB Regional Coordinator
Stuart Caie scaie@linz.govt.nz

Director IHO DCDB, Jennifer Jencks jennifer.jencks@noaa.gov

Head Seabed 2030 South and West Pacific Regional Center
Kevin Mackay Kevin.Mackay@niwa.co.nz



Photo!



Thank you!

We look forward to seeing you at SWPHC20
Wellington, 22-24 February 2023



Webinar Documents, Presentations & Recordings:
<https://iho.int/en/events-recordings>

